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Official TOEFL iBT® Tests

Volume 1

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- Answer keys
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Official TOEFL iBT® Tests

Volume 1

Third Edition

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Official TOEFL iBT Tests Volume 1, Third Edition

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Official *TOEFL iBT*® Tests Volume 1

Using the Digital Components

Downloadable interactive tests and audio tracks may be obtained from the McGraw-Hill Education Media Center at http://mhprofessional.com/mediacenter. Enter this eBook's ISBN and your e-mail address at the Media Center to receive an e-mail message that contains the download instructions. This eBook's ISBN is 978-1-260-14287-7. Note: The download will only work on a PC or MAC.

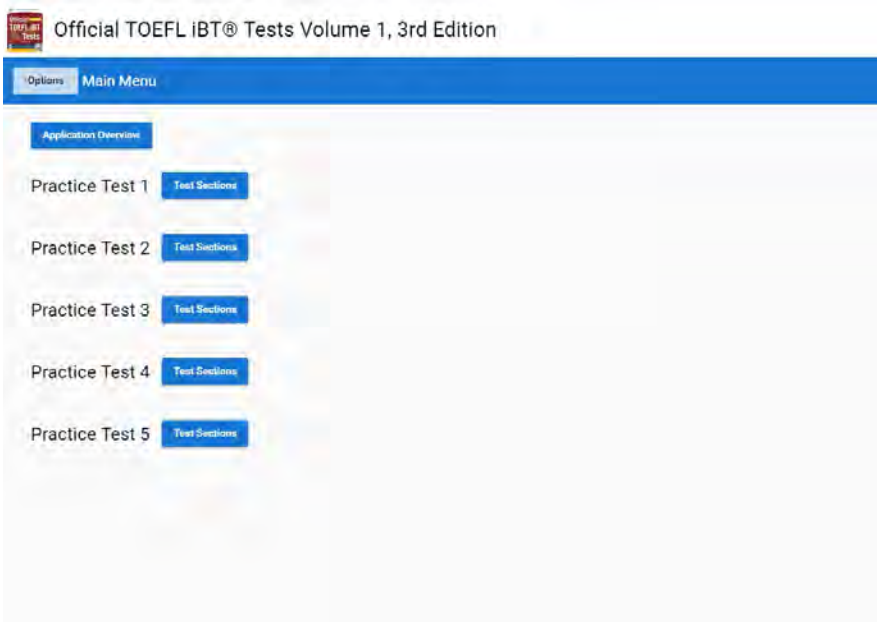
The test questions on the digital download are from actual *TOEFL iBT*® tests. However, the screens and delivery formats are not identical to the actual test. When you take the actual *TOEFL iBT*® test, you may notice some variations in how the questions are presented to you on screen.

Installation

Once you have downloaded the files, you will see that one folder is labeled **Audio**. This folder contains the audio tracks that you will need in order to work through the **eBook** tests. You can save these audio tracks to your PC or MAC computer. To install the computer practice tests on a PC, click on the file labeled **Setup** to be guided through a short series of screens. At the end of the process, the tests will be installed on your computer. To install the computer practice tests on a MAC, drag the program icon to your **Applications** folder.

Main Menu

When you launch the program, this screen appears:



Taking *TOEFL iBT®* Practice Tests on Your Computer

From the **Main Menu**, choose Practice Test 1, 2, 3, 4 or 5. Then select the test section you wish to take: **Reading, Listening, Speaking,** or **Writing**. Note that you can take each section more than once.

When you open a test section, you will first see the instructions for that section. A timer on the screen shows how many minutes and seconds you have left for that section. You can hide the timer if you find it distracting.

If you must take a break during the test, select **Main Menu** button at the top of the screen. This will take you back to the main menu. When you are ready to resume, open the test section again, and select the **Continue** button. Your work will not be lost, and you will begin exactly where you left off. The timer clock will stop while you are on your break and will restart immediately when you resume the test. Try not

to take breaks too often, because on the actual test, the clock keeps running even if you leave the room on a break.

Answering Questions

To answer the questions in the Reading and Listening sections, select the corresponding answer oval or follow the instructions given. For some questions, you will need to select more than one answer choice. After selecting your answer or answers, select **Next** to continue. For the Reading section, you can move back to review your answer choice by selecting the **Previous** button.

For the Speaking section, you should record your response to each question into a recording device after you hear the instruction telling you to begin speaking. Stop recording once the response time expires.

For the Writing section, write your response to each question in the space provided in the time allowed.

When all the questions in a section have been answered, select the **Next** button to complete the section.

Playing Audio Tracks

In the Listening, Speaking, and Writing sections, you will listen to audio tracks. Audio controls are available at the bottom of the screen. At the end of a track, select the **Next** button to start answering questions.

Your Performance

On the **Main Menu**, select a section of any test you have taken. You will get information on the percentage of questions answered correctly for the Reading and Listening sections only. Select the **Review** button. For each question in the Reading and Listening sections, you will see

the correct answer and the rationale explaining why the answer is correct. For the Speaking section, you will see the important points for each question, sample responses, and rater comments on the responses. Follow the instructions for listening to sample responses. Use the important points, sample Speaking responses and rater comments to evaluate your performance on the Speaking Section. For the Writing section, you will see the topic notes, sample essays, and rater comments on the essays. Use the topic notes, sample essays, and rater comments to evaluate your performance on the Writing section.

Working Through the Tests in the eBook

You may choose to work through the tests as you proceed through the eBook rather than using the interactive tests. If so, you will still need to listen to the audio tracks. From your copied and saved Audio folder, you can select the audio tracks by number as they are numbered in the eBook. As you work through the tests in the eBook, you will be told when to play each audio track. Each time you need to play a track, you will see the following symbol: . Select the number of the track as instructed in the eBook.

Official TOEFL iBT® Tests

Volume 1

Third Edition

New York Chicago San Francisco Athens London Madrid
Mexico City Milan New Delhi Singapore Sydney Toronto

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Introduction

About the *TOEFL iBT*® Test

The *TOEFL iBT*® test measures your ability to use and understand the English language as it is read, heard, spoken, and written in the university classroom. More than 10,000 universities, agencies, and other institutions in more than 130 countries accept *TOEFL*® scores as part of their admissions criteria, making the *TOEFL iBT*® test the most widely respected English-language test in the world.

Each *TOEFL iBT*® test contains four sections: Reading, Listening, Speaking, and Writing. The questions in these sections measure how well you **read, listen, speak, and write in English**. They also measure how well you use these skills together, so in some cases you will be asked to integrate your skills. For example, you may read a passage or listen to a lecture, and then write or speak about what you learned. Here are brief descriptions of each section, including what the section measures and the types of questions it contains.

Reading Section

This section measures your ability to understand academic passages in English. The passages are excerpts from university-level textbooks and similar academic materials.

You do not need any background knowledge about the topics contained in the passages in order to successfully answer the questions. All the information you need to answer the questions can be found in the passages. The questions cover your ability to find and understand basic information, make inferences, and read to

learn.

Here are the types of Reading questions, with an explanation of each type:

Factual Information Questions	These questions ask you to identify factual information that was explicitly stated in the passage.
Negative Factual Information Questions	These questions ask you to distinguish information that is true from information that is not true or not included in the passage.
Inference Questions	These questions ask about information that is implied but not explicitly stated in the passage.
Rhetorical Purpose Questions	These questions ask about the rhetorical function of specific information presented in a passage. These questions ask *why* the author mentioned or included a specific piece of information in the passage.
Vocabulary Questions	These questions ask you to identify the meanings of individual words or phrases *as they are used in the passage*.
Reference Questions	These questions measure your ability to identify relationships between ideas mentioned in the passage and expressions that refer to the ideas. For example, an idea could be presented and another sentence could refer to “This idea.” A question might ask what the phrase “This idea” refers to.
Sentence Simplification Questions	These questions ask you to choose a sentence that has the same essential meaning as a particular sentence from the passage.
Insert Text Questions	These questions provide a new sentence and ask you to place that sentence into the passage

	where it would best fit.
Prose Summary Questions	These questions ask you to identify major ideas from the passage and distinguish them from minor ideas or from ideas that were not presented in the passage. To select the correct answers, you need to both understand the relative importance of various pieces of information from the passage and identify the combination of answer choices that covers the major ideas presented in the passage.
Fill in a Table Questions	These questions ask you to select which answer choices belong in a table containing two or three categories. You will need to organize or categorize major ideas or points from the passage into the correct categories.

Listening Section

This section measures your ability to understand conversations and academic lectures in English.

You will listen to two conversations. One conversation takes place in a professor's office and may include discussion of academic material or course requirements. The other conversation takes place on a university campus and includes discussion of nonacademic content that is related to university life. Each conversation is followed by five questions.

You will also listen to four lectures on a variety of topics. In two lectures, only the professor speaks. In the other two lectures, students contribute to the discussion; the professor may ask students questions about the topic being discussed or may answer students' questions. Each lecture is followed by six questions.

Each conversation and lecture is heard only once. Each contains

a context photograph depicting the speaker(s). Some conversations and lectures contain other visuals, such as blackboards that present technical vocabulary or uncommon names.

Here are the types of Listening questions, with an explanation of each type:

Basic Comprehension Questions	These questions ask about the main idea or main purpose of a conversation or lecture, or they ask about important details that were discussed.
Connecting Information Questions	These questions ask you to identify the organization of information in a conversation or lecture, to make connections between important points that were discussed, or to make inferences based on important points that were discussed.
Pragmatic Understanding Questions	These questions ask you to identify a speaker's purpose in making a statement or asking a question or to identify a speaker's attitude, opinion, or degree of certainty.

Most questions are multiple choice with one correct answer. Some questions require more than one answer. You may also encounter questions that ask you to place the steps of a process in order, place checkmarks in a grid, or listen again to a portion of a conversation or lecture.

Speaking Section

This section measures your ability to speak in English about a variety of topics.

For each question, you will be given a short time to prepare

your response. When the preparation time is up, answer the question as completely as possible in the time indicated for that question. For the tests in this book, you should record your responses on a recording device. That way, you can review them later and compare them with the answer key and rubrics.

For Speaking question 1, you will speak about a familiar topic, such as a person you know, a favorite place, an important object, or an enjoyable event. You should base your response on personal experience or what you know about the familiar topic.

For Speaking question 2, you will give your opinion about a familiar topic. You will need to explain what your opinion is and explain the reasons you have for holding that opinion.

For Speaking question 3, you will first read a short passage and then listen to or read a transcript of a conversation on the same topic. You will then be asked a question about both. You will need to combine appropriate information from the passage and the conversation to provide a complete answer to the question. Your response is scored on your ability to speak clearly and coherently and on your ability to accurately convey information about the passage and the conversation.

For Speaking question 4, you will first read a short passage on an academic subject and then listen to or read a transcript of a talk on the same subject. You will then be asked a question about both. Your response is scored on your ability to speak clearly and coherently and on your ability to integrate and convey key information from the passage and the talk.

For Speaking question 5, you will listen to or read a transcript of a conversation about a campus-related problem. Your response is scored on your ability to briefly summarize the problem, state which solution from the conversation you prefer, and explain the reasons for your preference.

For Speaking question 6, you will listen to or read a transcript

of part of a lecture. You will then be asked a question about it. Your response is scored on your ability to speak clearly and coherently and on your ability to accurately convey information from the lecture.

Speaking responses are scored in terms of three important dimensions: delivery, language use, and topic development. When raters evaluate responses, they consider all three dimensions equally. No one dimension is weighted more heavily than another.

Writing Section

This section measures your ability to write in English to communicate in an academic environment.

For Writing question 1, you will read a passage and listen to or read a transcript of a lecture. Then you will respond to a question that asks you about the relationship between the reading passage and the lecture. Try to answer as completely as possible using information from both the reading passage and the lecture. The question does *not* ask you to express your personal opinion. You may consult the reading passage again when it is time for you to write. Typically, an effective response will be 150 to 225 words. Your response is judged on the quality of your writing and on the completeness and accuracy of the content.

For Writing question 2, you will write an essay in response to a question that asks you to state, explain, and support your opinion on an issue. Typically, an effective essay will contain a minimum of 300 words. Your essay is judged on the quality of your writing. This includes the development of your ideas, the organization of your essay, and the quality and accuracy of the language you use to express your ideas.

How To Use This Ebook

Official TOEFL iBT® Tests Volume 1, Third Edition can help you prepare for the test. It includes five complete actual past *TOEFL iBT®* tests. All the test questions are real TOEFL iBT questions given to test takers at test administrations around the world, but some questions are presented differently than on the real test. (Please note that you should use a recording device for the Speaking section.)

You can take each test in two ways:

- **Read the tests** on your e-reader or tablet and use a pen or pencil to record your answers on a separate sheet of paper as you proceed. Whenever you need to listen to an audio track, you will see the headphones icon 🎧 printed on the page. The audio tracks for all listening sections are provided through the download. Once the audio file is loaded to your computer, click on **Audio Tracks** and you will see the tracks listed by number. Click on each one when you are instructed to do so in the book.
- On your computer, using the interactive versions of the tests provided through the download. Follow the instructions provided on the first page of this book, titled "Using This Ebook".

Written transcripts of the audio tracks are located in Appendix B. If you do not have access to the audio tracks, but do have access to people with good English pronunciation, ask them to read the transcripts aloud to you. Listening to the transcripts is better practice than reading them to yourself. If someone reads the transcripts to you, make sure you see the pictures.

If you are using the print versions of the tests, listen to each audio track only one time. As in the real test, you may take notes while you listen and use your notes to help you answer the questions.

Answers

An Answers section for each test in this book is provided immediately following the end of the test.

For the Reading and Listening sections, Answer Keys are provided.

For the Speaking and Writing sections, there is no single correct answer for each question. The Answers section has descriptions of what you need to do to get a high score. You can also evaluate your responses using the scoring rubrics provided in Appendix A.

In the Speaking section, if you have recorded your responses on a recording device, you can compare them with the descriptions in the Answers section and with the rubrics.

Rubrics

Rubrics are used to guide raters in evaluating Speaking and Writing section responses. All *TOEFL iBT*® rubrics can be found in Appendix A.

Speaking scores represent an overall judgment of how well a response communicates its intended message. **Delivery** and **language use** are two key characteristics that raters consider when scoring responses to Independent Speaking questions (questions 1–2) and Integrated Speaking questions (questions 3–6). **Topic development** is a third key characteristic. For Independent Speaking questions, topic development is characterized by the *fullness* of the content provided in the response as well as its overall *coherence*. For Integrated Speaking questions, topic development is characterized by the *accuracy* and *completeness* of the content provided in the response as well as its overall

coherence.

Writing scores also represent an overall judgment of how well a response communicates its intended message. The **quality of the writing** is a key characteristic that raters consider when scoring responses to the Integrated Writing question (question 1) and the Independent Writing question (question 2). High-quality writing is characterized by *good organization*, as well as *appropriate and precise use of grammar and vocabulary*. For an Independent Writing question, high-quality writing also *effectively addresses the topic and task* and is *well developed*. The **completeness and accuracy of the content** is another key characteristic of responses that raters consider when scoring responses to an Integrated Writing question. A complete and accurate response presents the relevant main points from both the lecture and the reading, demonstrates the relationship between each of these main points, includes supporting details, and does not include information from sources other than the lecture and the reading.

More Official Resources

ETS has many official resources to help you prepare for the *TOEFL iBT*® test, including:

- *The Official Guide to the TOEFL® Test*
- *TOEFL*® Practice Online
- "*Inside the TOEFL® Test*" Video Series
- *TOEFL® Test Preparation: The Insider's Guide (MOOC)*
- *TOEFL Go!® Official App*

For information about these resources and more, and to register for the test, visit **www.toeflgoanywhere.org.**

TOEFL iBT Test 1

READING

This section measures your ability to understand academic passages in English.

There are three passages in the section. Give yourself 20 minutes to read each passage and answer the questions about it. The entire section will take 60 minutes to complete.

You may look back at a passage when answering the questions. You can skip questions and go back to them later as long as there is time remaining.

Directions: Read the passage. Then answer the questions. Give yourself 20 minutes to complete this practice set.

DEER POPULATIONS OF THE PUGET SOUND

Two species of deer have been prevalent in the Puget Sound area of Washington state in the Pacific Northwest of the United States. The black-tailed deer, a lowland, west-side cousin of the mule deer of eastern Washington, is now the most common. The other species, the Columbian white-tailed deer, in earlier times was common in the open prairie country; it is now restricted to the low, marshy islands and flood plains along the lower Columbia River.

Nearly any kind of plant of the forest understory can be part of a deer's diet. Where the forest inhibits the growth of grass and other meadow plants, the black-tailed deer browses on huckleberry, salal, dogwood, and almost any other shrub or herb. But this is fair-weather feeding. What keeps the black-tailed deer alive in the harsher seasons of plant decay and dormancy? One compensation for not hibernating is the built-in urge to migrate. Deer may move from high-elevation browse areas in summer down to the lowland areas in late fall. Even with snow on the ground, the high bushy understory is exposed; also snow and wind bring down leafy branches of cedar, hemlock, red alder, and other arboreal fodder.

The numbers of deer have fluctuated markedly since the entry of Europeans into Puget Sound country. The early explorers and settlers told of abundant deer in the early 1800s and yet almost in the same breath bemoaned the lack of this succulent game animal. Famous explorers of the North American frontier, Lewis and Clark arrived at the mouth of the Columbia River on November 14, 1805, in nearly starved circumstances. They had experienced great difficulty finding game west of the Rockies and not until the second of December did they kill their first elk. To keep 40 people alive that winter, they consumed approximately 150 elk and 20 deer. And when game

moved out of the lowlands in early spring, the expedition decided to return east rather than face possible starvation. Later on in the early years of the nineteenth century, when Fort Vancouver became the headquarters for the Hudson's Bay Company, deer populations continued to fluctuate. David Douglas, Scottish botanical explorer of the 1830s, found a disturbing change in the animal life around the fort during the period between his first visit in 1825 and his final contact with the fort in 1832. A recent Douglas biographer states: "The deer which once picturesquely dotted the meadows around the fort were gone [in 1832], hunted to extermination in order to protect the crops."

Reduction in numbers of game should have boded ill for their survival in later times. A worsening of the plight of deer was to be expected as settlers encroached on the land, logging, burning, and clearing, eventually replacing a wilderness landscape with roads, cities, towns, and factories. No doubt the numbers of deer declined still further. Recall the fate of the Columbian white-tailed deer, now in a protected status. But for the black-tailed deer, human pressure has had just the opposite effect. Wildlife zoologist Helmut Buechner (1953), in reviewing the nature of biotic changes in Washington through recorded time, says that "since the early 1940s, the state has had more deer than at any other time in its history, the winter population fluctuating around approximately 320,000 deer (mule and black-tailed deer), which will yield about 65,000 of either sex and any age annually for an indefinite period."

The causes of this population rebound are consequences of other human actions. First, the major predators of deer—wolves, cougar, and lynx—have been greatly reduced in numbers. Second, conservation has been insured by limiting times for and types of hunting. But the most profound reason for the restoration of high population numbers has been the fate of the forests. Great tracts of lowland country deforested by logging, fire, or both have become ideal feeding grounds for deer. In addition to finding an increase of suitable browse, like huckleberry and vine maple, Arthur Einarsen, longtime game biologist in the Pacific Northwest, found quality of browse in the open areas to be substantially more nutritive. The protein content of

shade-grown vegetation, for example, was much lower than that for plants grown in clearings.

Directions: Now answer the questions.

PARAGRAPH 1

Two species of deer have been prevalent in the Puget Sound area of Washington state in the Pacific Northwest of the United States. The black-tailed deer, a lowland, west-side cousin of the mule deer of eastern Washington, is now the most common. The other species, the Columbian white-tailed deer, in earlier times was common in the open prairie country; it is now restricted to the low, marshy islands and flood plains along the lower Columbia River.

1. According to paragraph 1, which of the following is true of the white-tailed deer of Puget Sound?

   Ⓐ It is native to lowlands and marshes.

   Ⓑ It is more closely related to the mule deer of eastern Washington than to other types of deer.

   Ⓒ It has replaced the black-tailed deer in the open prairie.

   Ⓓ It no longer lives in a particular type of habitat that it once occupied.

PARAGRAPH 2

Nearly any kind of plant of the forest understory can be part of a deer's diet. Where the forest inhibits the growth of grass and other meadow plants, the black-tailed deer browses on huckleberry, salal, dogwood, and almost any other shrub or herb. But this is fair-weather feeding. What keeps the black-tailed deer alive in the harsher seasons of plant decay and dormancy? One compensation for not hibernating

is the built-in urge to migrate. Deer may move from high-elevation browse areas in summer down to the lowland areas in late fall. Even with snow on the ground, the high bushy understory is exposed; also snow and wind bring down leafy branches of cedar, hemlock, red alder, and other arboreal fodder.

2. It can be inferred from the discussion in paragraph 2 that winter conditions
   - Ⓐ cause some deer to hibernate
   - Ⓑ make food unavailable in the highlands for deer
   - Ⓒ make it easier for deer to locate understory plants
   - Ⓓ prevent deer from migrating during the winter
3. The word “inhibits” in the passage is closest in meaning to
   - Ⓐ consists of
   - Ⓑ combines
   - Ⓒ restricts
   - Ⓓ establishes

PARAGRAPH 3

The numbers of deer have fluctuated markedly since the entry of Europeans into Puget Sound country. The early explorers and settlers told of abundant deer in the early 1800s and yet almost in the same breath bemoaned the lack of this succulent game animal. Famous explorers of the North American frontier, Lewis and Clark arrived at the mouth of the Columbia River on November 14, 1805, in nearly starved circumstances. They had experienced great difficulty finding game west of the Rockies and not until the second of December did they kill their first elk. To keep 40 people alive that winter, they consumed approximately 150 elk and 20 deer. And when game moved out of the lowlands in early spring, the expedition decided to

return east rather than face possible starvation. Later on in the early years of the nineteenth century, when Fort Vancouver became the headquarters for the Hudson's Bay Company, deer populations continued to fluctuate. David Douglas, Scottish botanical explorer of the 1830s, found a disturbing change in the animal life around the fort during the period between his first visit in 1825 and his final contact with the fort in 1832. A recent Douglas biographer states: "The deer which once picturesquely dotted the meadows around the fort were gone [in 1832], hunted to extermination in order to protect the crops."

4. The phrase "in the same breath" in the passage is closest in meaning to
   - Ⓐ impatiently
   - Ⓑ humorously
   - Ⓒ continuously
   - Ⓓ immediately
5. The author tells the story of the explorers Lewis and Clark in paragraph 3 in order to illustrate which of the following points?
   - Ⓐ The number of deer within the Puget Sound region has varied over time.
   - Ⓑ Most of the explorers who came to the Puget Sound area were primarily interested in hunting game.
   - Ⓒ There was more game for hunting in the East of the United States than in the West.
   - Ⓓ Individual explorers were not as successful at locating game as were the trading companies.
6. According to paragraph 3, how had Fort Vancouver changed by the time David Douglas returned in 1832?
   - Ⓐ The fort had become the headquarters for the Hudson's Bay Company.
   - Ⓑ Deer had begun populating the meadows around the fort.

Ⓒ Deer populations near the fort had been destroyed.

Ⓓ Crop yields in the area around the fort had decreased.

PARAGRAPH 4

Reduction in numbers of game should have boded ill for their survival in later times. A worsening of the plight of deer was to be expected as settlers encroached on the land, logging, burning, and clearing, eventually replacing a wilderness landscape with roads, cities, towns, and factories. No doubt the numbers of deer declined still further. Recall the fate of the Columbian white-tailed deer, now in a protected status. But for the black-tailed deer, human pressure has had just the opposite effect. Wildlife zoologist Helmut Buechner (1953), in reviewing the nature of biotic changes in Washington through recorded time, says that "since the early 1940s, the state has had more deer than at any other time in its history, the winter population fluctuating around approximately 320,000 deer (mule and black-tailed deer), which will yield about 65,000 of either sex and any age annually for an indefinite period."

7. Why does the author ask readers to recall "the fate of the Columbian white-tailed deer" in the discussion of changes in the wilderness landscape?

   Ⓐ To provide support for the idea that habitat destruction would lead to population decline

   Ⓑ To compare how two species of deer caused biotic changes in the wilderness environment

   Ⓒ To provide an example of a species of deer that has successfully adapted to human settlement

   Ⓓ To argue that some deer species must be given a protected status

8. The phrase "indefinite period" in the passage is closest in meaning to a period

Ⓐ whose end has not been determined

Ⓑ that does not begin when expected

Ⓒ that lasts only briefly

Ⓓ whose importance remains unknown

9. Which of the following statements about deer populations is supported by the information in paragraph 4?

Ⓐ Deer populations reached their highest point during the 1940s and then began to decline.

Ⓑ The activities of settlers contributed in unexpected ways to the growth of some deer populations in later times.

Ⓒ The clearing of wilderness land for construction caused biotic changes from which the black-tailed deer population has never recovered.

Ⓓ Since the 1940s the winter populations of deer have fluctuated more than the summer populations have.

PARAGRAPH 5

The causes of this population rebound are consequences of other human actions. First, the major predators of deer—wolves, cougar, and lynx—have been greatly reduced in numbers. Second, conservation has been insured by limiting times for and types of hunting. But the most profound reason for the restoration of high population numbers has been the fate of the forests. Great tracts of lowland country deforested by logging, fire, or both have become ideal feeding grounds for deer. In addition to finding an increase of suitable browse, like huckleberry and vine maple, Arthur Einarsen, longtime game biologist in the Pacific Northwest, found quality of browse in the open areas to be substantially more nutritive. The protein content of shade-grown vegetation, for example, was much lower than that for plants grown in clearings.

10. The word “rebound” in the passage is closest in meaning to

Ⓐ decline

Ⓑ recovery

Ⓒ exchange

Ⓓ movement

11. Which of the sentences below best expresses the essential information in the highlighted sentence in paragraph 5? Incorrect choices change the meaning in important ways or leave out essential information.

Ⓐ Arthur Einarsen’s longtime familiarity with the Pacific Northwest helped him discover areas where deer had an increase in suitable browse.

Ⓑ Arthur Einarsen found that deforested feeding grounds provided deer with more and better food.

Ⓒ Biologists like Einarsen believe it is important to find additional open areas with suitable browse for deer to inhabit.

Ⓓ According to Einarsen, huckleberry and vine maple are examples of vegetation that may someday improve the nutrition of deer in the open areas of the Pacific Northwest.

12. Which of the following is NOT mentioned in paragraph 5 as a factor that has increased deer populations?

Ⓐ A reduction in the number of predators

Ⓑ Restrictions on hunting

Ⓒ The effects of logging and fire

Ⓓ Laws that protect feeding grounds of deer

PARAGRAPHS 2 & 3

What keeps the black-tailed deer alive in the harsher seasons of

plant decay and dormancy? One compensation for not hibernating is the built-in urge to migrate. ■ Deer may move from high-elevation browse areas in summer down to the lowland areas in late fall. ■ Even with snow on the ground, the high bushy understory is exposed; also snow and wind bring down leafy branches of cedar, hemlock, red alder, and other arboreal fodder. ■

The numbers of deer have fluctuated markedly since the entry of Europeans into Puget Sound country. ■ The early explorers and settlers told of abundant deer in the early 1800s and yet almost in the same breath bemoaned the lack of this succulent game animal.

13. Look at the four squares [■] that indicate where the following sentence can be added to the passage.

There food is available and accessible throughout the winter.

Where would the sentence best fit?

Ⓐ What keeps the black-tailed deer alive in the harsher seasons of plant decay and dormancy? One compensation for not hibernating is the built-in urge to migrate. **There food is available and accessible throughout the winter.** Deer may move from high-elevation browse areas in summer down to the lowland areas in late fall. ■ Even with snow on the ground, the high bushy understory is exposed; also snow and wind bring down leafy branches of cedar, hemlock, red alder, and other arboreal fodder. ■

The numbers of deer have fluctuated markedly since the entry of Europeans into Puget Sound country. ■ The early explorers and settlers told of abundant deer in the early 1800s and yet almost in the same breath bemoaned the lack of this succulent game animal.

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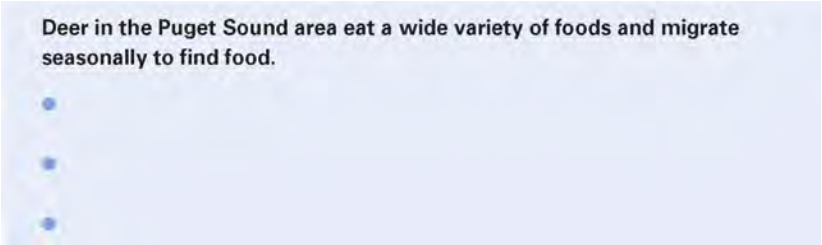
entry of Europeans into Puget Sound country. **There food is available and accessible throughout the winter.** The early explorers and settlers told of abundant deer in the early 1800s and yet almost in the same breath bemoaned the lack of this succulent game animal.

14. **Directions**: An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the THREE answer choices that express the most important ideas in the passage. Some sentences do not belong in the summary because they express ideas that are not presented in the passage or are minor ideas in the passage.

Write your answer choices in the spaces where they belong. You can either write the letter of your answer choice or you can copy the sentence.



Answer Choices

1. A The balance of deer species in the Puget Sound region has changed over time, with the Columbian white-tailed deer now outnumbering other types of deer.
2. B Because Puget Sound deer migrate, it was and still remains difficult to determine accurately how many deer are living at any one time in the western United States.
3. C Deer populations naturally fluctuate, but early settlers in the Puget Sound environment caused an overall decline in the

deer populations of the area at that time.

4. [D] Although it was believed that human settlement of the American West would cause the total number of deer to decrease permanently, the opposite has actually occurred for certain types of deer.
5. [E] In the long term, black-tailed deer in the Puget Sound area have benefitted from human activities through the elimination of their natural predators, and more and better food in deforested areas.
6. [F] Wildlife biologists have long been concerned that the loss of forests may create nutritional deficiencies for deer.

Directions: Read the passage. Then answer the questions. Give yourself 20 minutes to complete this practice set.

CAVE ART IN EUROPE

The earliest discovered traces of art are beads and carvings, and then paintings, from sites dating back to the Upper Paleolithic period. We might expect that early artistic efforts would be crude, but the cave paintings of Spain and southern France show a marked degree of skill. So do the naturalistic paintings on slabs of stone excavated in southern Africa. Some of those slabs appear to have been painted as much as 28,000 years ago, which suggests that painting in Africa is as old as painting in Europe. But painting may be even older than that. The early Australians may have painted on the walls of rock shelters and cliff faces at least 30,000 years ago, and maybe as much as 60,000 years ago.

The researchers Peter Ucko and Andrée Rosenfeld identified three principal locations of paintings in the caves of western Europe: (1) in obviously inhabited rock shelters and cave entrances; (2) in galleries immediately off the inhabited areas of caves; and (3) in the inner reaches of caves, whose difficulty of access has been interpreted by

some as a sign that magical-religious activities were performed there.

The subjects of the paintings are mostly animals. The paintings rest on bare walls, with no backdrops or environmental trappings. Perhaps, like many contemporary peoples, Upper Paleolithic men and women believed that the drawing of a human image could cause death or injury, and if that were indeed their belief, it might explain why human figures are rarely depicted in cave art. Another explanation for the focus on animals might be that these people sought to improve their luck at hunting. This theory is suggested by evidence of chips in the painted figures, perhaps made by spears thrown at the drawings. But if improving their hunting luck was the chief motivation for the paintings, it is difficult to explain why only a few show signs of having been speared. Perhaps the paintings were inspired by the need to increase the supply of animals. Cave art seems to have reached a peak toward the end of the Upper Paleolithic period, when the herds of game were decreasing.

The particular symbolic significance of the cave paintings in southwestern France is more explicitly revealed, perhaps, by the results of a study conducted by researchers Patricia Rice and Ann Paterson. The data they present suggest that the animals portrayed in the cave paintings were mostly the ones that the painters preferred for meat and for materials such as hides. For example, wild cattle (bovines) and horses are portrayed more often than we would expect by chance, probably because they were larger and heavier (meatier) than other animals in the environment. In addition, the paintings mostly portray animals that the painters may have feared the most because of their size, speed, natural weapons such as tusks and horns, and the unpredictability of their behavior. That is, mammoths, bovines, and horses are portrayed more often than deer and reindeer. Thus, the paintings are consistent with the idea that the art is related to the importance of hunting in the economy of Upper Paleolithic people. Consistent with this idea, according to the investigators, is the fact that the art of the cultural period that followed the Upper Paleolithic also seems to reflect how people got their food. But in that period, when getting food no longer depended on hunting large game

animals (because they were becoming extinct), the art ceased to focus on portrayals of animals.

Upper Paleolithic art was not confined to cave paintings. Many shafts of spears and similar objects were decorated with figures of animals. The anthropologist Alexander Marshack has an interesting interpretation of some of the engravings made during the Upper Paleolithic. He believes that as far back as 30,000 B.C., hunters may have used a system of notation, engraved on bone and stone, to mark phases of the Moon. If this is true, it would mean that Upper Paleolithic people were capable of complex thought and were consciously aware of their environment. In addition to other artworks, figurines representing the human female in exaggerated form have also been found at Upper Paleolithic sites. It has been suggested that these figurines were an ideal type or an expression of a desire for fertility.

Directions: Now answer the questions.

PARAGRAPH 1

The earliest discovered traces of art are beads and carvings, and then paintings, from sites dating back to the Upper Paleolithic period. We might expect that early artistic efforts would be crude, but the cave paintings of Spain and southern France show a marked degree of skill. So do the naturalistic paintings on slabs of stone excavated in southern Africa. Some of those slabs appear to have been painted as much as 28,000 years ago, which suggests that painting in Africa is as old as painting in Europe. But painting may be even older than that. The early Australians may have painted on the walls of rock shelters and cliff faces at least 30,000 years ago, and maybe as much as 60,000 years ago.

5. The word “marked” in the passage is closest in meaning to

Ⓐ considerable

Ⓑ surprising

Ⓒ limited

Ⓓ adequate

16. Paragraph 1 supports which of the following statements about painting in Europe?

Ⓐ It is much older than painting in Australia.

Ⓑ It is as much as 28,000 years old.

Ⓒ It is not as old as painting in southern Africa.

Ⓓ It is much more than 30,000 years old.

PARAGRAPH 2

The researchers Peter Ucko and Andrée Rosenfeld identified three principal locations of paintings in the caves of western Europe: (1) in obviously inhabited rock shelters and cave entrances; (2) in galleries immediately off the inhabited areas of caves; and (3) in the inner reaches of caves, whose difficulty of access has been interpreted by some as a sign that magical-religious activities were performed there.

17. The word “principal” in the passage is closest in meaning to

Ⓐ major

Ⓑ likely

Ⓒ well protected

Ⓓ distinct

18. According to paragraph 2, what makes some researchers think that certain cave paintings were connected with magical-religious activities?

Ⓐ The paintings were located where many people could easily

see them, allowing groups of people to participate in the magical-religious activities.

Ⓑ Upper Paleolithic people shared similar beliefs with contemporary peoples who use paintings of animals in their magical-religious rituals.

Ⓒ Evidence of magical-religious activities has been found in galleries immediately off the inhabited areas of caves.

Ⓓ The paintings were found in hard-to-reach places away from the inhabited parts of the cave.

PARAGRAPH 3

The subjects of the paintings are mostly animals. The paintings rest on bare walls, with no backdrops or environmental trappings. Perhaps, like many contemporary peoples, Upper Paleolithic men and women believed that the drawing of a human image could cause death or injury, and if that were indeed their belief, it might explain why human figures are rarely depicted in cave art. Another explanation for the focus on animals might be that these people sought to improve their luck at hunting. This theory is suggested by evidence of chips in the painted figures, perhaps made by spears thrown at the drawings. But if improving their hunting luck was the chief motivation for the paintings, it is difficult to explain why only a few show signs of having been speared. Perhaps the paintings were inspired by the need to increase the supply of animals. Cave art seems to have reached a peak toward the end of the Upper Paleolithic period, when the herds of game were decreasing.

19. The word “trappings” in the passage is closest in meaning to

Ⓐ conditions

Ⓑ problems

Ⓒ influences

Ⓓ decorations

20. Which of the sentences below best expresses the essential information in the highlighted sentence in paragraph 3? Incorrect choices change the meaning in important ways or leave out essential information.

Ⓐ Upper Paleolithic people, like many contemporary peoples, believed that if they drew a human image in their cave art, it would cause death or injury.

Ⓑ Many contemporary peoples believe that the drawing of a human image can cause death or injury, so they, like Upper Paleolithic people, rarely depict human figures in their cave art.

Ⓒ If Upper Paleolithic people, like many contemporary peoples, believed that the drawing of a human image could cause death or injury, this belief might explain why human figures are rarely depicted in cave art.

Ⓓ Although many contemporary peoples believe that the drawing of a human image can cause death or injury, researchers cannot explain why Upper Paleolithic people rarely depicted human figures in their cave art.

21. According to paragraph 3, scholars explained chips in the painted figures of animals by proposing that

Ⓐ Upper Paleolithic artists used marks to record the animals they had seen

Ⓑ the paintings were inspired by the need to increase the supply of animals for hunting

Ⓒ the artists had removed rough spots on the cave walls

Ⓓ Upper Paleolithic people used the paintings to increase their luck at hunting

22. Why does the author mention that Upper Paleolithic cave art seemed to have “reached a peak toward the end of the Upper Paleolithic period, when the herds of game

were decreasing"?

Ⓐ To argue that Upper Paleolithic art ceased to include animals when herds of game became scarce

Ⓑ To provide support for the idea that the aim of the paintings was to increase the supply of animals for hunting

Ⓒ To emphasize the continued improvement in the quality of cave art throughout the Upper Paleolithic period

Ⓓ To show the direct connection between the decrease in herds of game and the end of the Upper Paleolithic period

PARAGRAPH 4

The particular symbolic significance of the cave paintings in southwestern France is more explicitly revealed, perhaps, by the results of a study conducted by researchers Patricia Rice and Ann Paterson. The data they present suggest that the animals portrayed in the cave paintings were mostly the ones that the painters preferred for meat and for materials such as hides. For example, wild cattle (bovines) and horses are portrayed more often than we would expect by chance, probably because they were larger and heavier (meatier) than other animals in the environment. In addition, the paintings mostly portray animals that the painters may have feared the most because of their size, speed, natural weapons such as tusks and horns, and the unpredictability of their behavior. That is, mammoths, bovines, and horses are portrayed more often than deer and reindeer. Thus, the paintings are consistent with the idea that the art is related to the importance of hunting in the economy of Upper Paleolithic people. Consistent with this idea, according to the investigators, is the fact that the art of the cultural period that followed the Upper Paleolithic also seems to reflect how people got their food. But in that period, when getting food no longer depended on hunting large game animals (because they were becoming extinct), the art ceased to focus on portrayals of animals.

23. According to paragraph 4, scholars believe that wild cattle, horses, and mammoths are the animals most frequently portrayed in cave paintings for all of the following reasons EXCEPT:

Ⓐ These animals were difficult to hunt because of their unpredictable behavior.

Ⓑ People preferred these animals for their meat and for their skins.

Ⓒ The painters admired the beauty of these large animals.

Ⓓ People feared these animals because of their size and speed.

24. According to paragraph 4, which of the following may best represent the attitude of hunters toward deer and reindeer in the Upper Paleolithic period?

Ⓐ Hunters did not fear deer and reindeer as much as they did large game animals such as horses and mammoths.

Ⓑ Hunters were not interested in hunting deer and reindeer because of their size and speed.

Ⓒ Hunters preferred the meat and hides of deer and reindeer to those of other animals.

Ⓓ Hunters avoided deer and reindeer because of their natural weapons, such as horns.

25. According to paragraph 4, what change is evident in the art of the period following the Upper Paleolithic?

Ⓐ This new art starts to depict small animals rather than large ones.

Ⓑ This new art ceases to reflect the ways in which people obtained their food.

Ⓒ This new art no longer consists mostly of representations of animals.

Ⓓ This new art begins to show the importance of hunting to the economy.

PARAGRAPH 5

Upper Paleolithic art was not confined to cave paintings. Many shafts of spears and similar objects were decorated with figures of animals. The anthropologist Alexander Marshack has an interesting interpretation of some of the engravings made during the Upper Paleolithic. He believes that as far back as 30,000 B.C., hunters may have used a system of notation, engraved on bone and stone, to mark phases of the Moon. If this is true, it would mean that Upper Paleolithic people were capable of complex thought and were consciously aware of their environment. In addition to other artworks, figurines representing the human female in exaggerated form have also been found at Upper Paleolithic sites. It has been suggested that these figurines were an ideal type or an expression of a desire for fertility.

26. According to paragraph 5, which of the following has been used as evidence to suggest that Upper Paleolithic people were capable of complex thought and conscious awareness of their environment?

Ⓐ They engraved animal figures on the shafts of spears and other objects.

Ⓑ They may have used engraved signs to record the phases of the Moon.

Ⓒ Their figurines represented the human female in exaggerated form.

Ⓓ They may have used figurines to portray an ideal type or to express a desire for fertility.

PARAGRAPH 3

The subjects of the paintings are mostly animals. The paintings rest on bare walls, with no backdrops or environmental trappings.

Perhaps, like many contemporary peoples, Upper Paleolithic men and women believed that the drawing of a human image could cause death or injury, and if that were indeed their belief, it might explain why human figures are rarely depicted in cave art. Another explanation for the focus on animals might be that these people sought to improve their luck at hunting. ■ This theory is suggested by evidence of chips in the painted figures, perhaps made by spears thrown at the drawings. ■ But if improving their hunting luck was the chief motivation for the paintings, it is difficult to explain why only a few show signs of having been speared. ■ Perhaps the paintings were inspired by the need to increase the supply of animals. Cave art seems to have reached a peak toward the end of the Upper Paleolithic period, when the herds of game were decreasing. ■

27. Look at the four squares [■] that indicate where the following sentence can be added to the passage.

Therefore, if the paintings were connected with hunting, some other explanation is needed.

Where would the sentence best fit?

Ⓐ The subjects of the paintings are mostly animals. The paintings rest on bare walls, with no backdrops or environmental trappings. Perhaps, like many contemporary peoples, Upper Paleolithic men and women believed that the drawing of a human image could cause death or injury, and if that were indeed their belief, it might explain why human figures are rarely depicted in cave art. Another explanation for the focus on animals might be that these people sought to improve their luck at hunting. **Therefore, if the paintings were connected with hunting, some other explanation is needed.** This theory is suggested by evidence of chips in the painted figures, perhaps made by spears thrown at the drawings. ■ But if improving their hunting luck was the chief motivation for the paintings, it is difficult to explain why only a few show

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28. **Directions**: An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the THREE answer choices that express the most important ideas in the passage. Some sentences do not belong in the summary because they express ideas that are not presented in the passage or are minor ideas

in the passage.

Write your answer choices in the spaces where they belong. You can either write the letter of your answer choice or you can copy the sentence.

Answer Choices

1. A Researchers have proposed several different explanations for the fact that animals were the most common subjects in the cave paintings.
2. B The cave paintings focus on portraying animals without also depicting the natural environments in which these animals are typically found.
3. C The art of the cultural period that followed the Upper Paleolithic ceased to portray large game animals and focused instead on the kinds of animals that people of that period preferred to hunt.
4. D Some researchers have argued that the cave paintings mostly portrayed large animals that provided Upper Paleolithic people with meat and materials.
5. E Some researchers believe that the paintings found in France provide more explicit evidence of their symbolic significance than those found in Spain, southern Africa, and Australia.
6. F Besides cave paintings, Upper Paleolithic people produced several other kinds of artwork, one of which has been

thought to provide evidence of complex thought.

Directions: Read the passage. Then answer the questions. Give yourself 20 minutes to complete this practice set.

PETROLEUM RESOURCES

Petroleum, consisting of crude oil and natural gas, seems to originate from organic matter in marine sediment. Microscopic organisms settle to the seafloor and accumulate in marine mud. The organic matter may partially decompose, using up the dissolved oxygen in the sediment. As soon as the oxygen is gone, decay stops and the remaining organic matter is preserved.

Continued sedimentation—the process of deposits' settling on the sea bottom—buries the organic matter and subjects it to higher temperatures and pressures, which convert the organic matter to oil and gas. As muddy sediments are pressed together, the gas and small droplets of oil may be squeezed out of the mud and may move into sandy layers nearby. Over long periods of time (millions of years), accumulations of gas and oil can collect in the sandy layers. Both oil and gas are less dense than water, so they generally tend to rise upward through water-saturated rock and sediment.

Oil pools are valuable underground accumulations of oil, and oil fields are regions underlain by one or more oil pools. When an oil pool or field has been discovered, wells are drilled into the ground. Permanent towers, called derricks, used to be built to handle the long sections of drilling pipe. Now portable drilling machines are set up and are then dismantled and removed. When the well reaches a pool, oil usually rises up the well because of its density difference with water beneath it or because of the pressure of expanding gas trapped above it. Although this rise of oil is almost always carefully controlled today, spouts of oil, or gushers, were common in the past. Gas pressure gradually dies out, and oil is pumped from the well. Water or steam may be pumped down adjacent wells to help push the oil out. At a

refinery, the crude oil from underground is separated into natural gas, gasoline, kerosene, and various oils. Petrochemicals such as dyes, fertilizer, and plastic are also manufactured from the petroleum.

As oil becomes increasingly difficult to find, the search for it is extended into more-hostile environments. The development of the oil field on the North Slope of Alaska and the construction of the Alaska pipeline are examples of the great expense and difficulty involved in new oil discoveries. Offshore drilling platforms extend the search for oil to the ocean's continental shelves—those gently sloping submarine regions at the edges of the continents. More than one-quarter of the world's oil and almost one-fifth of the world's natural gas come from offshore, even though offshore drilling is six to seven times more expensive than drilling on land. A significant part of this oil and gas comes from under the North Sea between Great Britain and Norway.

Of course, there is far more oil underground than can be recovered. It may be in a pool too small or too far from a potential market to justify the expense of drilling. Some oil lies under regions where drilling is forbidden, such as national parks or other public lands. Even given the best extraction techniques, only about 30 to 40 percent of the oil in a given pool can be brought to the surface. The rest is far too difficult to extract and has to remain underground.

Moreover, getting petroleum out of the ground and from under the sea and to the consumer can create environmental problems anywhere along the line. Pipelines carrying oil can be broken by faults or landslides, causing serious oil spills. Spillage from huge oil-carrying cargo ships, called tankers, involved in collisions or accidental groundings can create oil slicks at sea. Offshore platforms may also lose oil, creating oil slicks that drift ashore and foul the beaches, harming the environment. Sometimes, the ground at an oil field may subside as oil is removed. The Wilmington field near Long Beach, California, has subsided nine meters in 50 years; protective barriers have had to be built to prevent seawater from flooding the area. Finally, the refining and burning of petroleum and its products can cause air pollution. Advancing technology and strict laws, however, are helping control some of these adverse environmental effects.

Directions: Now answer the questions.

PARAGRAPHS 1 & 2

Petroleum, consisting of crude oil and natural gas, seems to originate from organic matter in marine sediment. Microscopic organisms settle to the seafloor and accumulate in marine mud. The organic matter may partially decompose, using up the dissolved oxygen in the sediment. As soon as the oxygen is gone, decay stops and the remaining organic matter is preserved.

Continued sedimentation—the process of deposits' settling on the sea bottom—buries the organic matter and subjects it to higher temperatures and pressures, which convert the organic matter to oil and gas. As muddy sediments are pressed together, the gas and small droplets of oil may be squeezed out of the mud and may move into sandy layers nearby. Over long periods of time (millions of years), accumulations of gas and oil can collect in the sandy layers. Both oil and gas are less dense than water, so they generally tend to rise upward through water-saturated rock and sediment.

29. The word "accumulate" in the passage is closest in meaning to

Ⓐ grow up

Ⓑ build up

Ⓒ spread out

Ⓓ break apart

30. According to paragraph 1, which of the following is true about petroleum formation?

Ⓐ Microscopic organisms that live in mud produce crude oil and natural gas.

Ⓑ Large amounts of oxygen are needed for petroleum formation to begin.

Ⓒ Petroleum is produced when organic material in sediments combines with decaying marine organisms.

Ⓓ Petroleum formation appears to begin in marine sediments where organic matter is present.

31. In paragraphs 1 and 2, the author's primary purpose is to

Ⓐ describe how petroleum is formed

Ⓑ explain why petroleum formation is a slow process

Ⓒ provide evidence that a marine environment is necessary for petroleum formation

Ⓓ show that oil commonly occurs in association with gas

32. Which of the sentences below best expresses the essential information in the highlighted sentence in paragraph 2? Incorrect choices change the meaning in important ways or leave out essential information.

Ⓐ Higher temperatures and pressures promote sedimentation, which is responsible for petroleum formation.

Ⓑ Deposits of sediments on top of organic matter increase the temperature of and pressure on the matter.

Ⓒ Increased pressure and heat from the weight of the sediment turn the organic remains into petroleum.

Ⓓ The remains of microscopic organisms transform into petroleum once they are buried under mud.

PARAGRAPH 3

Oil pools are valuable underground accumulations of oil, and oil fields are regions underlain by one or more oil pools. When an oil pool or field has been discovered, wells are drilled into the ground. Permanent towers, called derricks, used to be built to handle the long sections of drilling pipe. Now portable drilling machines are set up and are then dismantled and removed. When the well reaches a pool, oil

usually rises up the well because of its density difference with water beneath it or because of the pressure of expanding gas trapped above it. Although this rise of oil is almost always carefully controlled today, spouts of oil, or gushers, were common in the past. Gas pressure gradually dies out, and oil is pumped from the well. Water or steam may be pumped down adjacent wells to help push the oil out. At a refinery, the crude oil from underground is separated into natural gas, gasoline, kerosene, and various oils. Petrochemicals such as dyes, fertilizer, and plastic are also manufactured from the petroleum.

33. The word "adjacent" in the passage is closest in meaning to

Ⓐ nearby

Ⓑ existing

Ⓒ special

Ⓓ deep

34. Which of the following can be inferred from paragraph 3 about gushers?

Ⓐ They make bringing the oil to the surface easier.

Ⓑ They signal the presence of huge oil reserves.

Ⓒ They waste more oil than they collect.

Ⓓ They are unlikely to occur nowadays.

PARAGRAPH 4

As oil becomes increasingly difficult to find, the search for it is extended into more-hostile environments. The development of the oil field on the North Slope of Alaska and the construction of the Alaska pipeline are examples of the great expense and difficulty involved in new oil discoveries. Offshore drilling platforms extend the search for oil to the ocean's continental shelves—those gently sloping submarine regions at the edges of the continents. More than one-quarter of the

world's oil and almost one-fifth of the world's natural gas come from offshore, even though offshore drilling is six to seven times more expensive than drilling on land. A significant part of this oil and gas comes from under the North Sea between Great Britain and Norway.

35. Which of the following strategies for oil exploration is described in paragraph 4?

Ⓐ Drilling under the ocean's surface

Ⓑ Limiting drilling to accessible locations

Ⓒ Using highly sophisticated drilling equipment

Ⓓ Constructing technologically advanced drilling platforms

36. What does the development of the Alaskan oil field mentioned in paragraph 4 demonstrate?

Ⓐ More oil is extracted from the sea than from land.

Ⓑ Drilling for oil requires major financial investments.

Ⓒ The global demand for oil has increased over the years.

Ⓓ The North Slope of Alaska has substantial amounts of oil.

37. The word "sloping" in the passage is closest in meaning to

Ⓐ shifting

Ⓑ inclining

Ⓒ forming

Ⓓ rolling

PARAGRAPH 5

Of course, there is far more oil underground than can be recovered. It may be in a pool too small or too far from a potential market to justify the expense of drilling. Some oil lies under regions where drilling is forbidden, such as national parks or other public lands. Even given the best extraction techniques, only about 30 to 40

percent of the oil in a given pool can be brought to the surface. The rest is far too difficult to extract and has to remain underground.

38. According to paragraph 5, the decision to drill for oil depends on all of the following factors EXCEPT

Ⓐ permission to access the area where oil has been found

Ⓑ the availability of sufficient quantities of oil in a pool

Ⓒ the location of the market in relation to the drilling site

Ⓓ the political situation in the region where drilling would occur

PARAGRAPH 6

Moreover, getting petroleum out of the ground and from under the sea and to the consumer can create environmental problems anywhere along the line. Pipelines carrying oil can be broken by faults or landslides, causing serious oil spills. Spillage from huge oil-carrying cargo ships, called tankers, involved in collisions or accidental groundings can create oil slicks at sea. Offshore platforms may also lose oil, creating oil slicks that drift ashore and foul the beaches, harming the environment. Sometimes, the ground at an oil field may subside as oil is removed. The Wilmington field near Long Beach, California, has subsided nine meters in 50 years; protective barriers have had to be built to prevent seawater from flooding the area. Finally, the refining and burning of petroleum and its products can cause air pollution. Advancing technology and strict laws, however, are helping control some of these adverse environmental effects.

39. The word “foul” in the passage is closest in meaning to

Ⓐ reach

Ⓑ flood

Ⓒ pollute

Ⓓ alter

10. In paragraph 6, the author's primary purpose is to

Ⓐ provide examples of how oil exploration can endanger the environment

Ⓑ describe accidents that have occurred when oil activities were in progress

Ⓒ give an analysis of the effects of oil spills on the environment

Ⓓ explain how technology and legislation help reduce oil spills

PARAGRAPH 2

Continued sedimentation—the process of deposits' settling on the sea bottom—buries the organic matter and subjects it to higher temperatures and pressures, which convert the organic matter to oil and gas. ■ As muddy sediments are pressed together, the gas and small droplets of oil may be squeezed out of the mud and may move into sandy layers nearby. ■ Over long periods of time (millions of years), accumulations of gas and oil can collect in the sandy layers. ■ Both oil and gas are less dense than water, so they generally tend to rise upward through water-saturated rock and sediment. ■

11. Look at the four squares [■] that indicate where the following sentence can be added to the passage.

Unless something acts to halt this migration, these natural resources will eventually reach the surface.

Where would the sentence best fit?

Ⓐ Continued sedimentation—the process of deposits' settling on the sea bottom—buries the organic matter and subjects it to higher temperatures and pressures, which convert the organic matter to oil and gas. **Unless something acts to halt this migration, these natural resources will eventually reach the surface.** As muddy sediments are pressed together, the

gas and small droplets of oil may be squeezed out of the mud and may move into sandy layers nearby. ■ Over long periods of time (millions of years), accumulations of gas and oil can collect in the sandy layers. ■ Both oil and gas are less dense than water, so they generally tend to rise upward through water-saturated rock and sediment. ■

Ⓑ Continued sedimentation—the process of deposits' settling on the sea bottom—buries the organic matter and subjects it to higher temperatures and pressures, which convert the organic matter to oil and gas. ■ As muddy sediments are pressed together, the gas and small droplets of oil may be squeezed out of the mud and may move into sandy layers nearby. **Unless something acts to halt this migration, these natural resources will eventually reach the surface.** Over long periods of time (millions of years), accumulations of gas and oil can collect in the sandy layers. ■ Both oil and gas are less dense than water, so they generally tend to rise upward through water-saturated rock and sediment. ■

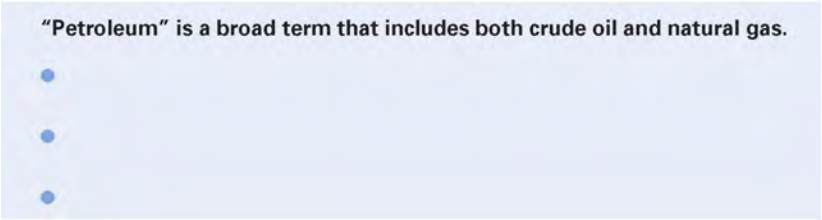
Ⓒ Continued sedimentation—the process of deposits' settling on the sea bottom—buries the organic matter and subjects it to higher temperatures and pressures, which convert the organic matter to oil and gas. ■ As muddy sediments are pressed together, the gas and small droplets of oil may be squeezed out of the mud and may move into sandy layers nearby. ■ Over long periods of time (millions of years), accumulations of gas and oil can collect in the sandy layers. **Unless something acts to halt this migration, these natural resources will eventually reach the surface.** Both oil and gas are less dense than water, so they generally tend to rise upward through water-saturated rock and sediment. ■

Ⓓ Continued sedimentation—the process of deposits' settling on the sea bottom—buries the organic matter and subjects it to

higher temperatures and pressures, which convert the organic matter to oil and gas. ■ As muddy sediments are pressed together, the gas and small droplets of oil may be squeezed out of the mud and may move into sandy layers nearby. ■ Over long periods of time (millions of years), accumulations of gas and oil can collect in the sandy layers. ■ Both oil and gas are less dense than water, so they generally tend to rise upward through water-saturated rock and sediment. **Unless something acts to halt this migration, these natural resources will eventually reach the surface.**

12. **Directions**: An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the THREE answer choices that express the most important ideas in the passage. Some sentences do not belong in the summary because they express ideas that are not presented in the passage or are minor ideas in the passage.

Write your answer choices in the spaces where they belong. You can either write the letter of your answer choice or you can copy the sentence.



Answer Choices

1. A Petroleum formation is the result of biological as well as chemical activity.
2. B Petroleum tends to rise to the surface, since it is lower in density than water.

3. C The difficulty of finding adequate sources of oil on land has resulted in a greater number of offshore drilling sites.
4. D Current methods of petroleum extraction enable oil producers to recover about half of the world's petroleum reserves.
5. E Petroleum extraction can have a negative impact on the environment.
6. F Accidents involving oil tankers occur when tankers run into shore reefs or collide with other vessels.

LISTENING

Directions: This section measures your ability to understand conversations and lectures in English.

Listen to each conversation and lecture only one time. After each conversation and lecture, you will answer some questions about it. Answer each question based on what is stated or implied by the speakers.

You may take notes while you listen and use your notes to help you answer the questions. Your notes will **not** be scored.

In some questions you will see this icon: . This means that you will hear, but not see, the question.

Answer each question before moving on. Do not return to previous questions.

It will take about 60 minutes to listen to the conversations and lectures and answer the questions about them.

Directions: Listen to Track 1. 🎧

Directions: Now answer the questions.

1. Why does the man need the woman's assistance? *Choose 2 answers.*

   A He does not know the publication date of some reviews he needs.

   B He does not know the location of the library's video collection of plays.

   C He does not know how to find out where the play is currently being performed.

   D He does not know how to determine which newspapers he should look at.

2. What does the woman imply about critical reaction to the play *Happy Strangers*?

   Ⓐ Negative critical reaction led to its content being revised after it

premiered.

Ⓑ The play has always been quite popular among university students.

Ⓒ Reactions to the play are more positive nowadays than they were in the past.

Ⓓ The play is rarely performed nowadays because critics have never liked it.

3. What does the woman say about her experience seeing a performance of *Happy Strangers* when she was younger? *Choose 2 answers.*

[A] It was the first play she had seen performed professionally.

[B] She saw it against the wishes of her parents.

[C] She was surprised at how traditional the performance was.

[D] She had a variety of emotional reactions to the play.

4. What is the man's attitude toward his current assignment?

Ⓐ He is not confident that he will find the materials he needs.

Ⓑ He feels that performing in a play is less boring than reading one.

Ⓒ He thinks his review of the play will be more objective than the contemporary reviews were.

Ⓓ He is optimistic that he will learn to appreciate the play he is researching.

5. Listen to Track 2. 🎧

Ⓐ To ask the man to clarify his request

Ⓑ To state the man's request more precisely

Ⓒ To make sure that she heard the man correctly

Ⓓ To correct a mistake the man has made

Directions: Listen to Track 3. 🎧

Biology

displacement activity

Directions: Now answer the questions.

6. What is the lecture mainly about?
   - Ⓐ Methods of observing unusual animal behavior
   - Ⓑ A theory about ways birds attract mates
   - Ⓒ Ways animals behave when they have conflicting drives
   - Ⓓ Criteria for classifying animal behaviors
7. Indicate whether each of the activities below describes a displacement activity. *Put a check (✓) in the correct boxes.*

	Yes	No
An animal attacks the ground instead of its enemy.		
An animal falls asleep in the middle of a mating ritual.		
An animal eats some food when confronted by its enemy.		

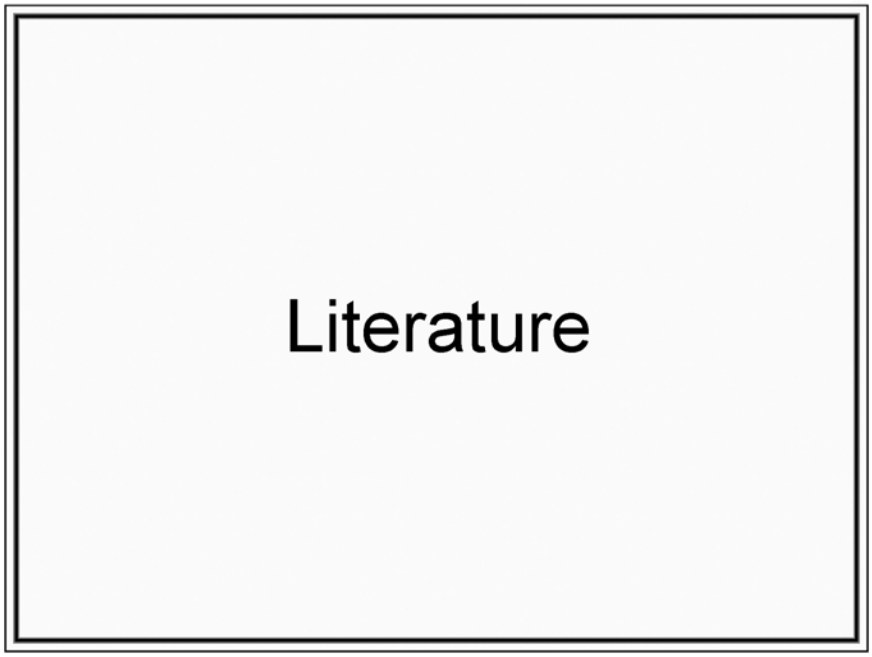
An animal takes a drink of water after grooming itself.		

8. What does the professor say about disinhibition?
   - Ⓐ It can prevent displacement activities from occurring.
   - Ⓑ It can cause animals to act on more than one drive at a time.
   - Ⓒ It is not useful for explaining many types of displacement activities.
   - Ⓓ It is responsible for the appearance of seemingly irrelevant behavior.
9. According to the lecture, what is one possible reason that displacement activities are often grooming behaviors?
   - Ⓐ Grooming may cause an enemy or predator to be confused.
   - Ⓑ Grooming is a convenient and accessible behavior.
   - Ⓒ Grooming often occurs before eating and drinking.
   - Ⓓ Grooming is a common social activity.
10. Why does the professor mention the wood thrush?
   - Ⓐ To contrast its displacement activities with those of other animal species
   - Ⓑ To explain that some animals display displacement activities other than grooming
   - Ⓒ To point out how displacement activities are influenced by the environment
   - Ⓓ To give an example of an animal that does not display displacement activities
11. Listen to Track 4. 🎧
   - Ⓐ She is impressed by how much the student knows about redirecting.
   - Ⓑ She thinks it is time to move on to the next part of this lecture.
   - Ⓒ The student's answer is not an example of a displacement

activity.

Ⓓ The student should suggest a different animal behavior to discuss next.

Directions: Listen to Track 5. 🎧



Directions: Now answer the questions.

12. What is the main purpose of the lecture?
    - Ⓐ To point out similarities in Emerson's essays and poems
    - Ⓑ To prepare the students to read an essay by Emerson
    - Ⓒ To compare Emerson's concept of universal truth to that of other authors
    - Ⓓ To show the influence of early United States society on Emerson's writing
13. On what basis did Emerson criticize the people of his time?
    - Ⓐ They refused to recognize universal truths.
    - Ⓑ They did not recognize the genius of certain authors.
    - Ⓒ Their convictions were not well-defined.
    - Ⓓ They were too interested in conformity.
14. What does Emerson say about the past?
    - Ⓐ It should guide a person's present actions.
    - Ⓑ It must be examined closely.
    - Ⓒ It is less important than the future.
    - Ⓓ It lacks both clarity and universal truth.
15. What point does the professor make when he mentions a ship's path?
    - Ⓐ It is easy for people to lose sight of their true path.
    - Ⓑ Most people are not capable of deciding which path is best for them.
    - Ⓒ The path a person takes can only be seen clearly after the destination has been reached.
    - Ⓓ A person should establish a goal before deciding which path to take.
16. What does the professor imply about himself when he

recounts some life experiences he had before becoming a literature professor? *Choose 2 answers.*

A He did not consider the consequences of his decisions.

B He did not plan to become a literature professor.

C He has always tried to act consistently.

D He has trusted in himself and his decisions.

17. Listen to Track 6.

Ⓐ To suggest that United States citizens have not changed much over time

Ⓑ To encourage the class to find more information about this time period

Ⓒ To explain why Emerson's essay has lost some relevance

Ⓓ To provide background for the concept he is explaining

Directions: Listen to Track 7.

Directions: Now answer the questions.

18. What is the conversation mainly about?

Ⓐ Methods for finding appropriate sources for a project

Ⓑ Reasons the woman is having difficulties with a project

Ⓒ Criteria the professor uses to evaluate group projects

Ⓓ Ways to develop the skills needed to work in groups

19. Why does the professor mention the “free-rider” problem?

Ⓐ To review a concept he explained in class

Ⓑ To give the student a plan to solve her problem

Ⓒ To clarify the problem the student is facing

Ⓓ To explain a benefit of working in groups

20. What is the professor’s opinion of the other students in the woman’s group?

Ⓐ They try to take credit for work they did not do.

Ⓑ They did not perform well in previous courses with him.

Ⓒ They are more motivated when they are working in a group.

Ⓓ They do good work when they are interested in the subject.

21. Why did the woman choose property rights as a topic?

Ⓐ The professor recommended the topic.

Ⓑ She already had a lot of reference materials on the subject.

Ⓒ She wanted to learn something new.

Ⓓ It was easy to research at the school library.

22. What mistakes does the professor imply the woman has made while working on a project? *Choose 2 answers.*

[A] Finding sources for her group partners

[B] Writing the weekly progress reports for her group

[C] Forgetting to pay attention to the project’s deadlines

[D] Failing to involve the group members in the selection of a topic

Directions: Listen to Track 8. 🎧

Geology

Directions: Now answer the questions.

23. What does the professor mainly discuss?

Ⓐ His plans for research involving moving rocks

Ⓑ A difference between two geological forces that cause rocks to move

Ⓒ Theories about why desert rocks move

Ⓓ Reasons why geologists should study moving rocks

24. According to the professor, what have the researchers agreed on?

Ⓐ The rocks cannot move after ice storms.

Ⓑ The rocks do not move at night.

Ⓒ The rocks never move in circles.

Ⓓ The rocks are not moved by people.

25. The professor mentions an experiment done five to ten years ago on the wind speed necessary to move rocks. What opinion does the professor express about the

experiment?

Ⓐ The researchers reached the correct conclusion despite some miscalculations.

Ⓑ The researchers should have chosen a different location for their experiment.

Ⓒ The experiment should have been conducted on wetter ground.

Ⓓ The experiment was not continued long enough to achieve clear results.

26. What important point does the professor make about the area where the rocks are found?

Ⓐ It has been the site of Earth's highest wind speeds.

Ⓑ It is subject to laws that restrict experimentation.

Ⓒ It is accessible to heavy machinery.

Ⓓ It is not subject to significant changes in temperature.

27. What is the professor's purpose in telling the students about moving rocks?

Ⓐ To teach a lesson about the structure of solid matter

Ⓑ To share a recent advance in geology

Ⓒ To give an example of how ice can move rocks

Ⓓ To show how geologists need to combine information from several fields

28. Listen to Track 9. 🎧

Ⓐ The movement pattern of the rocks was misreported by researchers.

Ⓑ The rocks are probably being moved by people.

Ⓒ The movement pattern of the rocks does not support the wind theory.

Ⓓ There must be differences in the rocks' composition.

Directions: Listen to Track 10. 🎧

United States Government

Directions: Now answer the questions.

29. What is the discussion mainly about?

Ⓐ Reasons the United States government should not support the arts

Ⓑ The history of government support for the arts in the United States

Ⓒ Strengths and weaknesses of different government-sponsored arts programs

Ⓓ Different ways in which governments can help support artists

30. According to the discussion, in what two ways was the Federal Art Project successful? *Choose 2 answers.*

[A] It established standards for art schools.

[B] It provided jobs for many artists.

[C] It produced many excellent artists.

[D] It gave many people greater access to the arts.

31. The class discusses some important events related to

government support for the arts in the United States. Put the events in order from earliest to latest.

Write your answer choices in the spaces where they belong. You can either write the letter of your answer choice or you can copy the sentence. The first one is done for you.

1. The government provided no official support for the arts.
2.
3.
4.
5.

Answer Choices

1. A Arts councils were established in all 50 states of the country.
2. B The federal budget supporting the arts was reduced by half.
3. C The Federal Art Project helped reduce unemployment.
4. D The National Endowment for the Arts was established.

32. Why does the professor mention the Kennedy Center and Lincoln Center?

Ⓐ To give examples of institutions that benefit from corporate support

Ⓑ To illustrate why some artists oppose the building of cultural centers

Ⓒ To show how two centers were named after presidents who supported the arts

Ⓓ To name two art centers built by the government during the Depression

33. What does the professor say about artists' opinions of government support for the arts?

Ⓐ Most artists believe that the government should provide more funding for the arts.

Ⓑ Most artists approve of the ways in which the government supports the arts.

Ⓒ Even artists do not agree on whether the government should support the arts.

Ⓓ Even artists have a low opinion of government support for the arts.

34. Listen to Track 11. 🎧

Ⓐ Other students should comment on the man's remark.

Ⓑ Most people would agree with the man's opinion.

Ⓒ Artwork funded by the government is usually of excellent quality.

Ⓓ The government project was not a waste of money.

SPEAKING

This section measures your ability to speak in English about a variety of topics.

There are six questions in this section. For each question, you will be given a short time to prepare your response. When the preparation time is up, answer the question as completely as possible in the time indicated for that question. You should record your responses so that you can review them later and compare them with the answer key and scoring rubrics.

1. You will now be asked to speak about a familiar topic. Give yourself 15 seconds to prepare your response. Then record yourself speaking for 45 seconds.

   Listen to Track 12. 🎧

   What do you miss most about your home when you are away? Use specific details in your explanation.

   Preparation Time: 15 seconds

   Response Time: 45 seconds

2. You will now be asked to give your opinion about a familiar topic. Give yourself 15 seconds to prepare your response. Then record yourself speaking for 45 seconds.

   Listen to Track 13. 🎧

   Many universities now offer academic courses over the Internet. However, some people still prefer learning in traditional classrooms. Which do you think is better? Explain why.

   Preparation Time: 15 seconds

   Response Time: 45

seconds

3. You will now read a short passage and listen to a conversation on the same topic. You will then be asked a question about them. After you hear the question, give yourself 30 seconds to prepare your response. Then record yourself speaking for 60 seconds.

Listen to Track 14. 🎧

Reading Time: 45 seconds

Evening Computer Classes May Be Added

The computer department is considering offering evening classes in the fall. The proposal to add the classes is a response to student complaints that daytime computer classes have become increasingly overcrowded and there are no longer enough computers available. The department has decided that despite some added expense, the most cost-effective way of addressing this problem is by adding computer classes in the evening. It is hoped that this change will decrease the number of students enrolled in day classes and thus guarantee individual access to computers for all students in computer classes.

Listen to Track 15. 🎧

The man expresses his opinion about the proposal described in the article. Briefly summarize the proposal. Then state his opinion about the proposal and explain the reasons he gives for holding that opinion.

Preparation Time: 30 seconds

Response Time: 60 seconds

4. You will now read a short passage and listen to a lecture on the same topic. You will then be asked a question about them. After you hear the question, give yourself 30 seconds to prepare your response. Then record yourself speaking for 60 seconds.

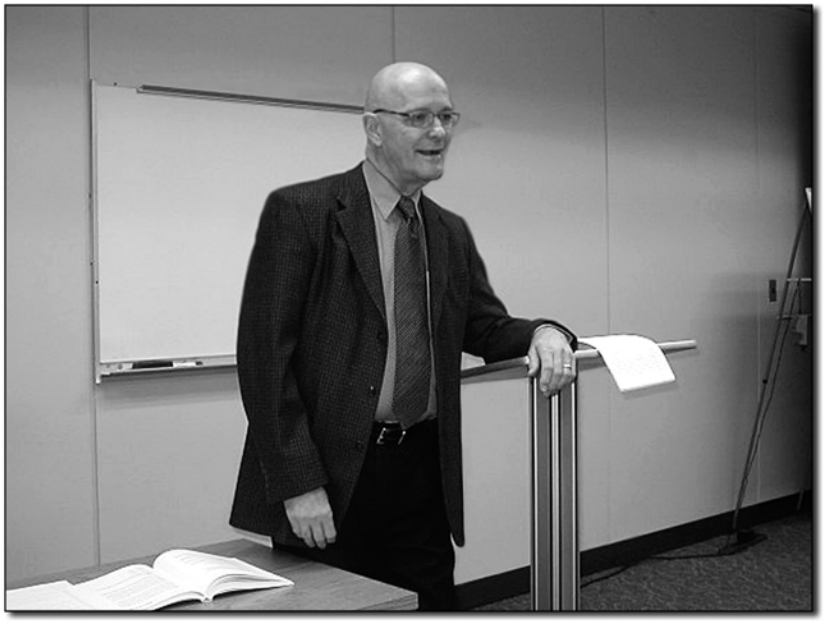
Listen to Track 16. 🎧

Reading Time: 45 seconds

Verbal and Nonverbal Communication

When we speak with other people face-to-face, the nonverbal signals we give—our facial expressions, hand gestures, body movements, and tone of voice—often communicate as much as, or more than, the words we utter. When our nonverbal signals, which we often produce unconsciously, agree with our verbal message, the verbal message is enhanced and supported, made more convincing. But when they conflict with the verbal message, we may be communicating an entirely different and more accurate message than what we intend.

Listen to Track 17. 🎧



Explain how the examples from the professor's lecture illustrate the relationship between verbal and nonverbal communication.

Preparation Time: 30 seconds

Response Time: 60 seconds

5. You will now listen to part of a conversation. You will then be asked a question about it. After you hear the question, give yourself 20 seconds to prepare your response. Then record yourself speaking for 60 seconds.

   Listen to Track 18. 🎧

Briefly summarize the problem the speakers are discussing.

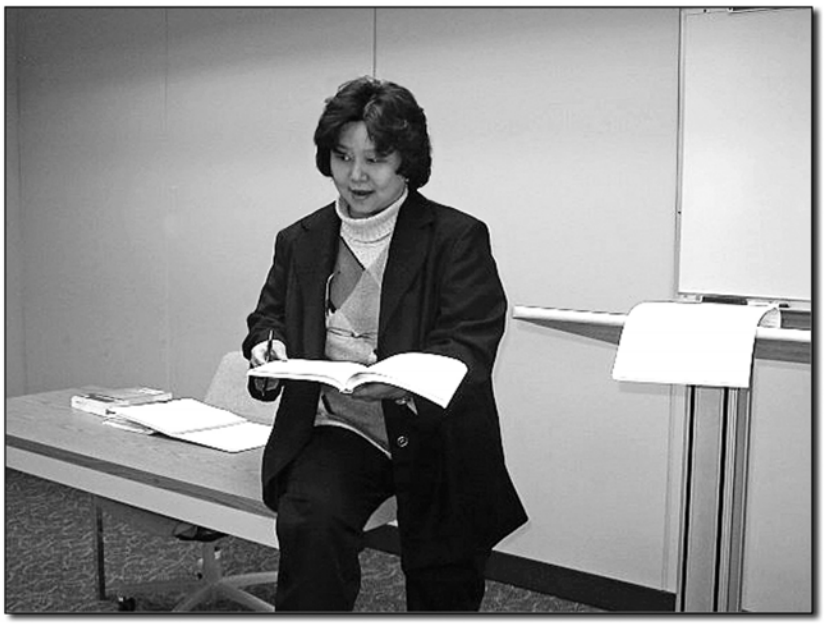
Then state which of the two solutions from the conversation you would recommend. Explain the reasons for your recommendation.

Preparation Time: 20 seconds

Response Time: 60 seconds

6. You will now listen to part of a lecture. You will then be asked a question about it. After you hear the question, give yourself 20 seconds to prepare your response. Then record yourself speaking for 60 seconds.

   Listen to Track 19. 🎧



Using points and examples from the lecture, explain the importance of visual elements in painting.

Preparation Time: 20 seconds

Response Time: 60 seconds

WRITING

This section measures your ability to write in English to communicate in an academic environment.

There are two writing questions in this section.

For question 1, you will read a passage and listen to a lecture about the same topic. You may take notes while you read and listen. Then you will write a response to a question based on what you have read and heard. You may look back at the passage when answering the question. You may use your notes to help you answer the question. You have 20 minutes to plan and write your response.

For question 2, you will write an essay based on your own knowledge and experience. You have 30 minutes to plan and complete your essay.

1. **Directions:** Give yourself 3 minutes to read the passage.

Reading Time: 3 minutes

Endotherms are animals such as modern birds and mammals that keep their body temperatures constant. For instance, humans are endotherms and maintain an internal temperature of 37°C, no matter whether the environment is warm or cold. Because dinosaurs were reptiles, and modern reptiles are not endotherms, it was long assumed that dinosaurs were not endotherms. However, dinosaurs differ in many ways from modern reptiles, and there is now considerable evidence that dinosaurs were, in fact, endotherms.

Polar dinosaurs

One reason for believing that dinosaurs were endotherms is that dinosaur fossils have been discovered in polar regions. Only animals that can maintain a temperature well above that of the surrounding environment could be active in such cold climates.

Leg position and movement

There is a connection between endothermy and the position and movement of the legs. The physiology of endothermy allows sustained physical activity, such as running. But running is efficient only if an animal's legs are positioned underneath its body, not at the body's side, as they are for crocodiles and many lizards. The legs of all modern endotherms are underneath the body, and so were the legs of dinosaurs. This strongly suggests that dinosaurs were endotherms.

Haversian canals

There is also a connection between endothermy and bone structure. The bones of endotherms usually include structures called Haversian canals. These canals house nerves and blood vessels that allow the living animal to grow quickly, and rapid body growth is in fact a characteristic of endothermy. The presence of Haversian canals in bone is a strong indicator that the animal is an endotherm, and fossilized bones of dinosaurs are usually dense with Haversian canals.

Listen to Track 20. 🎧

Directions: You have 20 minutes to plan and write your response. Your response will be judged on the basis of the quality of your writing and on how well your response presents the points in the lecture and their relationship to the reading passage. Typically, an effective response will be 150 to 225 words.

Listen to Track 21. 🎧

Response Time: 20 minutes

Summarize the points made in the lecture, being sure to explain how they challenge the specific points made in the reading passage.

2. **Directions:** Read the question below. You have 30 minutes to plan, write, and revise your essay. Typically, an effective response will contain a minimum of 300 words.

Response Time: 30 minutes

Do you agree or disagree with the following statement?

In twenty years there will be fewer cars in use than there are today.

Use specific reasons and examples to support your answer.

ANSWERS

Reading Section

1. D
2. B
3. C
4. D
5. A
6. C
7. A
8. A
9. B
10. B
11. B
12. D
13. B
14. C, D, E
15. A
16. B
17. A
18. D
19. D
20. C
21. D

22. B
23. C
24. A
25. C
26. B
27. C
28. A, D, F
29. B
30. D
31. A
32. C
33. A
34. D
35. A
36. B
37. B
38. D
39. C
40. A
41. D
42. A, C, E

Listening Section

1. A, D
2. C
3. A, D
4. D

5. B
6. C
7.

	Yes	No
An animal attacks the ground instead of its enemy.		✓
An animal falls asleep in the middle of a mating ritual.	✓	
An animal eats some food when confronted by its enemy.	✓	
An animal takes a drink of water after grooming itself.		✓

8. D
9. B
10. C
11. C
12. B
13. D
14. C
15. C
16. B, D
17. D
18. B
19. C
20. D
21. C
22. A, D

23. C
24. D
25. A
26. B
27. D
28. C
29. B
30. B, D
31. C, D, A, B
32. A
33. C
34. D

Speaking Section

1. There are many ways you could answer this particular question. You will need to talk about one or more things about your home that you miss when you are away and provide explanations for why you miss them.

   You should begin by providing a specific example of something that you miss about your home. For example, this could be your family, your favorite room, or your mother's cooking. You should then provide more details about why you miss this. For example, you could describe your favorite room and talk about the comfortable chair that is in it and how you have had wonderful talks with your family and friends there. Or you could say that you miss your mother's cooking because she prepares special, spicy food that you cannot get when you are away from home. It is important to develop your ideas with specific explanations. You should not merely give a list of

things you miss without providing details that help the listener understand why you miss them.

Your response should be intelligible, should demonstrate effective use of grammar and vocabulary, and should be well developed and coherent. Your response is scored using the Independent Speaking Rubric (see Appendix A).

2. To respond to this particular question, you should clearly state what your opinion is: Do you think it is better to learn in traditional classrooms or take classes over the Internet? Then you should give reasons to support your opinion. If you take the position that you believe Internet or online courses are more effective, you might give the reason that they are more effective because a student can study at anytime from anywhere. You might further support that reason by using an example from your own experience. You might say that you learn best in the evenings and so online courses allow you to learn when you are best able to concentrate, whereas in a traditional classroom, you have to concentrate at a particular time.

   If you believe that online courses are not better than learning in a traditional classroom, you might give an example of something that happens in the classroom that makes learning effective. You might say that direct contact with a teacher is important. You could continue to develop your response by giving examples of how direct contact is beneficial to learning.

   Keep in mind that there is no "correct" answer to this question. Whether you prefer courses over the Internet or in traditional classrooms, your answer can be supported with examples and details. It is important to make sure that you state your opinion and develop your response with good

examples and relevant details.

Your response should be intelligible, should demonstrate effective use of grammar and vocabulary, and should be well developed and coherent. Your response is scored using the Independent Speaking Rubric (see Appendix A).

3. First, as the question states, you should provide a brief summary of the proposal, which is for the computer department to add evening classes in the fall. You can also provide a brief summary of the reason that they are doing this (overcrowded conditions in the daytime computer classes). You should not spend too much time on this summary; if you attempt to provide many details from the reading, you may not have enough time to discuss both of the man's reasons for disagreeing with the proposal. For this item type, a brief summary is all that is necessary. You should make sure that your summary is clear enough for the listener to understand the proposal without having access to additional information.

After the summary, you should state the man's opinion of the university's proposal to add computer courses in the evening. In this case, the man disagrees with the university's proposal.

You should then convey the two main reasons he gives for holding that opinion. You will need to connect information from the conversation to the reading in order for your response to be complete. First, the man says that the idea to add evening classes will not solve the problem of overcrowding because most students are too busy to take classes at night. You could also provide one of the examples why students are busy, such as jobs or family.

Your response should also convey the man's second reason for not agreeing with the university's proposal. You should say

that the man thinks that offering evening classes won't save money because it will be expensive to add the new classes, and it will be more expensive than buying new computers. You could add that hiring new teachers and keeping the building open late is expensive, or that the rooms are big enough for more computers and that computers are now less expensive than they used to be. You do not, however, have to describe every detail from the conversation as long as you make it clear why the man disagrees with the proposal.

Your response should be intelligible, should demonstrate effective use of grammar and vocabulary, and should be well developed and coherent. Your response is scored using the Integrated Speaking Rubric (see Appendix A).

4. To respond to this particular question, you should discuss how verbal and nonverbal communication are related and explain how the examples that the professor gives support the reading text. You should include relevant points and examples from the lecture (and not from any other source).

To begin your response, you could give a brief summary of the reading, such as a definition of what verbal and nonverbal communication is; that is, that gestures and body movements often provide as much information to a person as spoken language does. You could also say that nonverbal signals can agree or conflict with a verbal message.

Then you should explain how the professor's examples illustrate these general ideas. In the first example, the professor's happy nonverbal behaviors on seeing his uncle, such as his big smile, and his jumping up and down, agreed with his verbal message, so the verbal message was supported. You could also say that his uncle knew he was very happy.

You should then discuss the second example. In this

example, when the professor hit himself with the hammer, he did not want to upset his daughter and told her not to worry. These words, however, conflicted with his nonverbal behavior, such as his shaking his hand in pain and his trembling voice, so his daughter did not believe the verbal message. In this case, the nonverbal message was more accurate.

You will not have time to repeat all of the details from the lecture and reading, and you should not try to do that. You should integrate points from both to answer the question completely. You need to give only sufficient details to explain how the two examples relate to the overall idea of how nonverbal communication contributes to verbal messages.

Your response should be intelligible, should demonstrate effective use of grammar and vocabulary, and should be well developed and coherent. Your response is scored using the Integrated Speaking Rubric (see Appendix A).

5. To respond to this particular question you should *briefly* describe the problem. It is enough to say that the man has left his class schedule back at the dorm and doesn't know what room his class is in. You do not need to give many details at this point.

Next, you need to choose *one* of the two solutions and explain why you think that solution is best. The two solutions in this conversation are: 1) go to the student center and use a computer to find out where the class is, or 2) check each lecture hall until he finds his class. It does not matter which of the two proposed solutions you chose, since there is no "right" solution or "wrong" solution. You should choose the solution that you think is best and support your choice with reasons why you think it is best. The reasons you give can include information provided by the speakers as well as your own

experiences.

For example, if you believe the first solution is preferable, you would probably begin by saying that you think it would be best for the man to go use the computer in the student center in order to find the room number, then you would proceed to explain why. There are any number of reasons you can give: you might say that it's best to check the computer because he can also find out where his other classes are, since he doesn't have the schedule. You could also speak about the disadvantages of the second solution; you might say that he would be embarrassed to look in the other rooms, and he wouldn't know what the professor looks like anyway. Remember, this type of question can be answered in many different ways.

Your response should be intelligible, should demonstrate effective use of grammar and vocabulary, and should be well developed and coherent. Your response is scored using the Integrated Speaking Rubric (see Appendix A).

6. To respond to this particular question, you should talk about some of the visual elements of painting and explain why they are important. You should include relevant points and examples from the lecture (and not from any other source).

To begin your response, you should briefly state the main idea, that visual elements convey meaning and express emotion in paintings. You would then talk about the different points the professor gives to support this. You would say, for example, that colors can evoke strong emotions, and give the example that red can evoke anger or blue can make somebody feel calm. Then you could talk about texture. You could say that texture can be physical or visual or that texture can also evoke emotions; for example, a smooth texture can be calming.

You could then talk about how artists combine these elements to create meaning; for example, strong colors, such as reds, plus wide sweeping brushstrokes suggest chaos and stronger emotions.

As the goal of this item is to provide a summary of the professor's lecture, you do not need to repeat all of the details from the lecture. You need to only give sufficient details to explain why visual details are important in a painting.

Your response should be intelligible, should demonstrate effective use of grammar and vocabulary, and should be well developed and coherent. Your response is scored using the Integrated Speaking Rubric (see Appendix A).

Writing Section

1. What is important to understand from the lecture is that the professor disagrees with the arguments presented in the reading to support the idea that dinosaurs were endotherms, namely that dinosaurs inhabited polar regions; that their legs were positioned underneath their bodies; and that their bones included structures called Haversian canals.

   In your response, you should convey the reasons presented by the professor for why the information presented in the reading does not prove that dinosaurs were endotherms. A high-scoring response will include the following points made by the professor that cast doubt on the points made in the reading:

Point made in the reading	Counterpoint made in the lecture
The presence of dinosaur	When dinosaurs lived, the polar

fossils in the polar regions indicates that dinosaurs were able to survive in very cold climates and therefore must have been endotherms.	regions were much warmer than they are today, so even animals that were not endotherms could have survived there for at least part of the year. Furthermore, polar dinosaurs could have migrated or hibernated during the months when the temperatures were the coldest.
Dinosaurs' legs were positioned underneath their bodies. Such leg positioning allows for running and similar physical activities typical of endotherms.	The positioning of dinosaurs' legs underneath their bodies may have served a function unrelated to running and similar activities. The positioning of legs underneath the body may have evolved to support the great body weight of many dinosaurs.
Dinosaurs' bones contained Haversian canals, structures that allow for fast bone growth and, again, are typical of endotherms.	Despite containing Haversian canals, dinosaur bones also had features one would expect to see in animals that are not endotherms. In particular, dinosaur bones contained growth rings, which indicate periods of slow growth alternating with periods of fast growth. Such an uneven pattern of growth is typical of animals that are not endotherms.

Your response is scored using the Integrated Writing Rubric (see Appendix A). A response that receives a score of 5

clearly conveys all three of the main points in the table using accurate sentence structure and vocabulary.

2. To earn a top score, you should develop a multi-paragraph essay that responds to the issue of whether you believe there will be fewer cars in use twenty years from now. Typically an effective response will contain a minimum of 300 words.

One successful way to express agreement with the statement is to develop your response around the central concept that the costs of driving cars in the future may become prohibitive for many workers; because the cost of nonrenewable fuels keeps going up, people twenty years from now would realize how much they could save by taking public transportation. Another aspect is that people are becoming more and more unhappy with time spent waiting in traffic or finding parking places, so they might be willing to give up their cars and rely on public transportation.

A successful way to disagree with the statement is to focus on the problems that not having a car create as a reason why the number of cars will not be reduced; you could point to the lack of public transportation in some areas, or the inconvenience of having to structure life and work around public transportation schedules. You could also argue that expected advances in technology and clean energy will probably mean that in twenty years, cars will be different, but not fewer.

Keep in mind that there is no “correct” answer to this question. Either side of the issue can be supported with examples and reasons. It is important to make sure that you state your opinion and develop a response that explains your opinion. The development of your essay is judged by how effectively you support your opinion; a well-developed essay

will contain clearly appropriate reasons, examples, and details that illustrate your opinion. Development is not evaluated simply in terms of how many words you write.

Your response should be well organized. A well-organized essay allows an evaluator to read from the beginning to the end of the essay without becoming confused. You should be sure not to just repeat the same information in different ways.

The quality and accuracy of the sentence structure and vocabulary you use to express your ideas is also very important.

Your response is scored using the Independent Writing Rubric (see Appendix A).

TOEFL iBT Test 2

READING

This section measures your ability to understand academic passages in English.

There are three passages in the section. Give yourself 20 minutes to read each passage and answer the questions about it. The entire section will take 60 minutes to complete.

You may look back at a passage when answering the questions. You can skip questions and go back to them later as long as there is time remaining.

Directions: Read the passage. Then answer the questions. Give yourself 20 minutes to complete this practice set.

MINERALS AND PLANTS

Research has shown that certain minerals are required by plants for normal growth and development. The soil is the source of these minerals, which are absorbed by the plant with the water from the soil. Even nitrogen, which is a gas in its elemental state, is normally absorbed from the soil as nitrate ions. Some soils are notoriously deficient in micro nutrients and are therefore unable to support most plant life. So-called serpentine soils, for example, are deficient in calcium, and only plants able to tolerate low levels of this mineral can survive. In modern agriculture, mineral depletion of soils is a major concern, since harvesting crops interrupts the recycling of nutrients back to the soil.

Mineral deficiencies can often be detected by specific symptoms such as chlorosis (loss of chlorophyll resulting in yellow or white leaf tissue), necrosis (isolated dead patches), anthocyanin formation (development of deep red pigmentation of leaves or stem), stunted growth, and development of woody tissue in an herbaceous plant. Soils are most commonly deficient in nitrogen and phosphorus. Nitrogen-deficient plants exhibit many of the symptoms just described. Leaves develop chlorosis; stems are short and slender; and anthocyanin discoloration occurs on stems, petioles, and lower leaf surfaces. Phosphorus-deficient plants are often stunted, with leaves turning a characteristic dark green, often with the accumulation of anthocyanin. Typically, older leaves are affected first as the phosphorus is mobilized to young growing tissue. Iron deficiency is characterized by chlorosis between veins in young leaves.

Much of the research on nutrient deficiencies is based on growing plants hydroponically, that is, in soilless liquid nutrient solutions. This technique allows researchers to create solutions that selectively omit

certain nutrients and then observe the resulting effects on the plants. Hydroponics has applications beyond basic research, since it facilitates the growing of greenhouse vegetables during winter. Aeroponics, a technique in which plants are suspended and the roots misted with a nutrient solution, is another method for growing plants without soil.

While mineral deficiencies can limit the growth of plants, an overabundance of certain minerals can be toxic and can also limit growth. Saline soils, which have high concentrations of sodium chloride and other salts, limit plant growth, and research continues to focus on developing salt-tolerant varieties of agricultural crops. Research has focused on the toxic effects of heavy metals such as lead, cadmium, mercury, and aluminum; however, even copper and zinc, which are essential elements, can become toxic in high concentrations. Although most plants cannot survive in these soils, certain plants have the ability to tolerate high levels of these minerals.

Scientists have known for some time that certain plants, called hyperaccumulators, can concentrate minerals at levels a hundredfold or greater than normal. A survey of known hyperaccumulators identified that 75 percent of them amassed nickel; cobalt, copper, zinc, manganese, lead, and cadmium are other minerals of choice. Hyperaccumulators run the entire range of the plant world. They may be herbs, shrubs, or trees. Many members of the mustard family, spurge family, legume family, and grass family are top hyperaccumulators. Many are found in tropical and subtropical areas of the world, where accumulation of high concentrations of metals may afford some protection against plant-eating insects and microbial pathogens.

Only recently have investigators considered using these plants to clean up soil and waste sites that have been contaminated by toxic levels of heavy metals—an environmentally friendly approach known as phytoremediation. This scenario begins with the planting of hyperaccumulating species in the target area, such as an abandoned mine or an irrigation pond contaminated by runoff. Toxic minerals would first be absorbed by roots but later relocated to the stem and

leaves. A harvest of the shoots would remove the toxic compounds off site to be burned or composted to recover the metal for industrial uses. After several years of cultivation and harvest, the site would be restored at a cost much lower than the price of excavation and reburial, the standard practice for remediation of contaminated soils. For example, in field trials, the plant alpine pennycress removed zinc and cadmium from soils near a zinc smelter, and Indian mustard, native to Pakistan and India, has been effective in reducing levels of selenium salts by 50 percent in contaminated soils.

Directions: Now answer the questions.

PARAGRAPH 1

Research has shown that certain minerals are required by plants for normal growth and development. The soil is the source of these minerals, which are absorbed by the plant with the water from the soil. Even nitrogen, which is a gas in its elemental state, is normally absorbed from the soil as nitrate ions. Some soils are notoriously deficient in micro nutrients and are therefore unable to support most plant life. So-called serpentine soils, for example, are deficient in calcium, and only plants able to tolerate low levels of this mineral can survive. In modern agriculture, mineral depletion of soils is a major concern, since harvesting crops interrupts the recycling of nutrients back to the soil.

1. According to paragraph 1, what is true of plants that can grow in serpentine soils?

   Ⓐ They absorb micronutrients unusually well.

   Ⓑ They require far less calcium than most plants do.

   Ⓒ They are able to absorb nitrogen in its elemental state.

   Ⓓ They are typically crops raised for food.

PARAGRAPH 2

Mineral deficiencies can often be detected by specific symptoms such as chlorosis (loss of chlorophyll resulting in yellow or white leaf tissue), necrosis (isolated dead patches), anthocyanin formation (development of deep red pigmentation of leaves or stem), stunted growth, and development of woody tissue in an herbaceous plant. Soils are most commonly deficient in nitrogen and phosphorus. Nitrogen-deficient plants exhibit many of the symptoms just described. Leaves develop chlorosis; stems are short and slender; and anthocyanin discoloration occurs on stems, petioles, and lower leaf surfaces. Phosphorus-deficient plants are often stunted, with leaves turning a characteristic dark green, often with the accumulation of anthocyanin. Typically, older leaves are affected first as the phosphorus is mobilized to young growing tissue. Iron deficiency is characterized by chlorosis between veins in young leaves.

2. The word "exhibit" in the passage is closest in meaning to
   - Ⓐ fight off
   - Ⓑ show
   - Ⓒ cause
   - Ⓓ spread
3. According to paragraph 2, which of the following symptoms occurs in phosphorus-deficient plants but not in plants deficient in nitrogen or iron?
   - Ⓐ Chlorosis on leaves
   - Ⓑ Change in leaf pigmentation to a dark shade of green
   - Ⓒ Short, stunted appearance of stems
   - Ⓓ Reddish pigmentation on the leaves or stem
4. According to paragraph 2, a symptom of iron deficiency is the presence in young leaves of
   - Ⓐ deep red discoloration between the veins

Ⓑ white or yellow tissue between the veins

Ⓒ dead spots between the veins

Ⓓ characteristic dark green veins

PARAGRAPH 3

Much of the research on nutrient deficiencies is based on growing plants hydroponically, that is, in soilless liquid nutrient solutions. This technique allows researchers to create solutions that selectively omit certain nutrients and then observe the resulting effects on the plants. Hydroponics has applications beyond basic research, since it facilitates the growing of greenhouse vegetables during winter. Aeroponics, a technique in which plants are suspended and the roots misted with a nutrient solution, is another method for growing plants without soil.

5. The word “facilitates” in the passage is closest in meaning to

   Ⓐ slows down

   Ⓑ affects

   Ⓒ makes easier

   Ⓓ focuses on

6. According to paragraph 3, what is the advantage of hydroponics for research on nutrient deficiencies in plants?

   Ⓐ It allows researchers to control what nutrients a plant receives.

   Ⓑ It allows researchers to observe the growth of a large number of plants simultaneously.

   Ⓒ It is possible to directly observe the roots of plants.

   Ⓓ It is unnecessary to keep misting plants with nutrient solutions.

7. The word “suspended” in the passage is closest in

meaning to

Ⓐ grown

Ⓑ protected

Ⓒ spread out

Ⓓ hung

PARAGRAPH 5

Scientists have known for some time that certain plants, called hyperaccumulators, can concentrate minerals at levels a hundredfold or greater than normal. A survey of known hyperaccumulators identified that 75 percent of them amassed nickel; cobalt, copper, zinc, manganese, lead, and cadmium are other minerals of choice. Hyperaccumulators run the entire range of the plant world. They may be herbs, shrubs, or trees. Many members of the mustard family, spurge family, legume family, and grass family are top hyperaccumulators. Many are found in tropical and subtropical areas of the world, where accumulation of high concentrations of metals may afford some protection against plant-eating insects and microbial pathogens.

8. Why does the author mention “herbs,” “shrubs,” and “trees”?

   Ⓐ To provide examples of plant types that cannot tolerate high levels of harmful minerals

   Ⓑ To show why so many plants are hyperaccumulators

   Ⓒ To help explain why hyperaccumulators can be found in so many different places

   Ⓓ To emphasize that hyperaccumulators occur in a wide range of plant types

9. The word “afford” in the passage is closest in meaning to

   Ⓐ offer

Ⓑ prevent

Ⓒ increase

Ⓓ remove

PARAGRAPH 6

Only recently have investigators considered using these plants to clean up soil and waste sites that have been contaminated by toxic levels of heavy metals—an environmentally friendly approach known as phytoremediation. This scenario begins with the planting of hyperaccumulating species in the target area, such as an abandoned mine or an irrigation pond contaminated by runoff. Toxic minerals would first be absorbed by roots but later relocated to the stem and leaves. A harvest of the shoots would remove the toxic compounds off site to be burned or composted to recover the metal for industrial uses. After several years of cultivation and harvest, the site would be restored at a cost much lower than the price of excavation and reburial, the standard practice for remediation of contaminated soils. For example, in field trials, the plant alpine pennycress removed zinc and cadmium from soils near a zinc smelter, and Indian mustard, native to Pakistan and India, has been effective in reducing levels of selenium salts by 50 percent in contaminated soils.

10. Which of the sentences below best expresses the essential information in the highlighted sentence in paragraph 6? Incorrect choices change the meaning in important ways or leave out essential information.

Ⓐ Before considering phytoremediation, hyperaccumulating species of plants local to the target area must be identified.

Ⓑ The investigation begins with an evaluation of toxic sites in the target area to determine the extent of contamination.

Ⓒ The first step in phytoremediation is the planting of hyperaccumulating plants in the area to be cleaned up.

Ⓓ Mines and irrigation ponds can be kept from becoming contaminated by planting hyperaccumulating species in targeted areas.

11. It can be inferred from paragraph 6 that compared with standard practices for remediation of contaminated soils, phytoremediation

Ⓐ does not allow for the use of the removed minerals for industrial purposes

Ⓑ can be faster to implement

Ⓒ is equally friendly to the environment

Ⓓ is less suitable for soils that need to be used within a short period of time

12. Why does the author mention “Indian mustard”?

Ⓐ To warn about possible risks involved in phytoremediation

Ⓑ To help illustrate the potential of phytoremediation

Ⓒ To show that hyperaccumulating plants grow in many regions of the world

Ⓓ To explain how zinc contamination can be reduced

PARAGRAPH 5

Scientists have known for some time that certain plants, called hyperaccumulators, can concentrate minerals at levels a hundredfold or greater than normal. ■ A survey of known hyperaccumulators identified that 75 percent of them amassed nickel; cobalt, copper, zinc, manganese, lead, and cadmium are other minerals of choice. ■ Hyperaccumulators run the entire range of the plant world. ■ They may be herbs, shrubs, or trees. ■ Many members of the mustard family, spurge family, legume family, and grass family are top hyperaccumulators. Many are found in tropical and subtropical areas of the world, where accumulation of high concentrations of metals may

afford some protection against plant-eating insects and microbial pathogens.

13. Look at the four squares [■] that indicate where the following sentence can be added to the passage.

Certain minerals are more likely to be accumulated in large quantities than others.

Where would the sentence best fit?

Ⓐ Scientists have known for some time that certain plants, called hyperaccumulators, can concentrate minerals at levels a hundredfold or greater than normal. **Certain minerals are more likely to be accumulated in large quantities than others.** A survey of known hyperaccumulators identified that 75 percent of them amassed nickel; cobalt, copper, zinc, manganese, lead, and cadmium are other minerals of choice. ■ Hyperaccumulators run the entire range of the plant world. ■ They may be herbs, shrubs, or trees. ■ Many members of the mustard family, spurge family, legume family, and grass family are top hyperaccumulators. Many are found in tropical and subtropical areas of the world, where accumulation of high concentrations of metals may afford some protection against plant-eating insects and microbial pathogens.

Ⓑ Scientists have known for some time that certain plants, called hyperaccumulators, can concentrate minerals at levels a hundredfold or greater than normal. ■ A survey of known hyperaccumulators identified that 75 percent of them amassed nickel; cobalt, copper, zinc, manganese, lead, and cadmium are other minerals of choice. **Certain minerals are more likely to be accumulated in large quantities than others.** Hyperaccumulators run the entire range of the plant world. ■ They may be herbs, shrubs, or trees. ■ Many members of the mustard family, spurge family, legume family, and grass family

are top hyperaccumulators. Many are found in tropical and subtropical areas of the world, where accumulation of high concentrations of metals may afford some protection against plant-eating insects and microbial pathogens.

Ⓒ Scientists have known for some time that certain plants, called hyperaccumulators, can concentrate minerals at levels a hundredfold or greater than normal. ■ A survey of known hyperaccumulators identified that 75 percent of them amassed nickel; cobalt, copper, zinc, manganese, lead, and cadmium are other minerals of choice. ■ Hyperaccumulators run the entire range of the plant world. **Certain minerals are more likely to be accumulated in large quantities than others.** They may be herbs, shrubs, or trees. ■ Many members of the mustard family, spurge family, legume family, and grass family are top hyperaccumulators. Many are found in tropical and subtropical areas of the world, where accumulation of high concentrations of metals may afford some protection against plant-eating insects and microbial pathogens.

Ⓓ Scientists have known for some time that certain plants, called hyperaccumulators, can concentrate minerals at levels a hundredfold or greater than normal. ■ A survey of known hyperaccumulators identified that 75 percent of them amassed nickel; cobalt, copper, zinc, manganese, lead, and cadmium are other minerals of choice. ■ Hyperaccumulators run the entire range of the plant world. ■ They may be herbs, shrubs, or trees. **Certain minerals are more likely to be accumulated in large quantities than others.** Many members of the mustard family, spurge family, legume family, and grass family are top hyperaccumulators. Many are found in tropical and subtropical areas of the world, where accumulation of high concentrations of metals may afford some protection against plant-eating insects and microbial pathogens.

14. **Directions:** An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the THREE answer choices that express the most important ideas in the passage. Some sentences do not belong in the summary because they express ideas that are not presented in the passage or are minor ideas in the passage.

Write your answer choices in the spaces where they belong. You can either write the letter of your answer choice or you can copy the sentence.

Answer Choices

1. A Some plants can tolerate comparatively low levels of certain minerals, but such plants are of little use for recycling nutrients back into depleted soils.
2. B When plants do not absorb sufficient amounts of essential minerals, characteristic abnormalities result.
3. C Mineral deficiencies in many plants can be cured by misting their roots with a nutrient solution or by transferring the plants to a soilless nutrient solution.
4. D Though beneficial in lower levels, high levels of salts, other minerals, and heavy metals can be harmful to plants.
5. E Because high concentrations of sodium chloride and other salts limit growth in most plants, much research has been done in an effort to develop salt-tolerant agricultural crops.

6. F Some plants are able to accumulate extremely high levels of certain minerals and thus can be used to clean up soils contaminated with toxic levels of these minerals.

Directions: Read the passage. Then answer the questions. Give yourself 20 minutes to complete this practice set.

THE ORIGIN OF THE PACIFIC ISLAND PEOPLE

The greater Pacific region, traditionally called Oceania, consists of three cultural areas: Melanesia, Micronesia, and Polynesia. Melanesia, in the southwest Pacific, contains the large islands of New Guinea, the Solomons, Vanuatu, and New Caledonia. Micronesia, the area north of Melanesia, consists primarily of small scattered islands. Polynesia is the central Pacific area in the great triangle defined by Hawaii, Easter Island, and New Zealand. Before the arrival of Europeans, the islands in the two largest cultural areas, Polynesia and Micronesia, together contained a population estimated at 700,000.

Speculation on the origin of these Pacific islanders began as soon as outsiders encountered them; in the absence of solid linguistic, archaeological, and biological data, many fanciful and mutually exclusive theories were devised. Pacific islanders were variously thought to have come from North America, South America, Egypt, Israel, and India, as well as Southeast Asia. Many older theories implicitly deprecated the navigational abilities and overall cultural creativity of the Pacific islanders. For example, British anthropologists G. Elliot Smith and W. J. Perry assumed that only Egyptians would have been skilled enough to navigate and colonize the Pacific. They inferred that the Egyptians even crossed the Pacific to found the great civilizations of the New World (North and South America). In 1947 Norwegian adventurer Thor Heyerdahl drifted on a balsa-log raft westward with the winds and currents across the Pacific from South America to prove his theory that Pacific islanders were Native Americans (also called American Indians). Later Heyerdahl suggested

that the Pacific was peopled by three migrations: by Native Americans from the Pacific Northwest of North America drifting to Hawaii, by Peruvians drifting to Easter Island, and by Melanesians. In 1969 he crossed the Atlantic in an Egyptian-style reed boat to prove Egyptian influences in the Americas. Contrary to these theorists, the overwhelming evidence of physical anthropology, linguistics, and archaeology shows that the Pacific islanders came from Southeast Asia and were skilled enough as navigators to sail against the prevailing winds and currents.

The basic cultural requirements for the successful colonization of the Pacific islands include the appropriate boat-building, sailing, and navigation skills to get to the islands in the first place; domesticated plants and gardening skills suited to often marginal conditions; and a varied inventory of fishing implements and techniques. It is now generally believed that these prerequisites originated with peoples speaking Austronesian languages (a group of several hundred related languages) and began to emerge in Southeast Asia by about 5000 B.C.E. The culture of that time, based on archaeology and linguistic reconstruction, is assumed to have had a broad inventory of cultivated plants including taro, yams, banana, sugarcane, breadfruit, coconut, sago, and rice. Just as important, the culture also possessed the basic foundation for an effective maritime adaptation, including outrigger canoes and a variety of fishing techniques that could be effective for overseas voyaging.

Contrary to the arguments of some that much of the Pacific was settled by Polynesians accidentally marooned after being lost and adrift, it seems reasonable that this feat was accomplished by deliberate colonization expeditions that set out fully stocked with food and domesticated plants and animals. Detailed studies of the winds and currents using computer simulations suggest that drifting canoes would have been a most unlikely means of colonizing the Pacific. These expeditions were likely driven by population growth and political dynamics on the home islands, as well as the challenge and excitement of exploring unknown waters. Because all Polynesians, Micronesians, and many Melanesians speak Austronesian languages

and grow crops derived from Southeast Asia, all these peoples most certainly derived from that region and not the New World or elsewhere. The undisputed pre-Columbian presence in Oceania of the sweet potato, which is a New World domesticate, has sometimes been used to support Heyerdahl's "American Indians in the Pacific" theories. However, this is one plant out of a long list of Southeast Asian domesticates. As Patrick Kirch, an American anthropologist, points out, rather than being brought by rafting South Americans, sweet potatoes might just have easily been brought back by returning Polynesian navigators who could have reached the west coast of South America.

Directions: Now answer the questions.

PARAGRAPH 1

The greater Pacific region, traditionally called Oceania, consists of three cultural areas: Melanesia, Micronesia, and Polynesia. Melanesia, in the southwest Pacific, contains the large islands of New Guinea, the Solomons, Vanuatu, and New Caledonia. Micronesia, the area north of Melanesia, consists primarily of small scattered islands. Polynesia is the central Pacific area in the great triangle defined by Hawaii, Easter Island, and New Zealand. Before the arrival of Europeans, the islands in the two largest cultural areas, Polynesia and Micronesia, together contained a population estimated at 700,000.

5. According to paragraph 1, all of the following are true statements about Melanesia, Micronesia, and Polynesia EXCEPT:

   Ⓐ Collectively, these regions are traditionally known as Oceania.

   Ⓑ The islands of Micronesia are small and spread out.

   Ⓒ Hawaii, Easter Island, and New Zealand mark the boundaries of Polynesia.

Ⓓ Melanesia is situated to the north of Micronesia.

PARAGRAPH 2

Speculation on the origin of these Pacific islanders began as soon as outsiders encountered them; in the absence of solid linguistic, archaeological, and biological data, many fanciful and mutually exclusive theories were devised. Pacific islanders were variously thought to have come from North America, South America, Egypt, Israel, and India, as well as Southeast Asia. Many older theories implicitly deprecated the navigational abilities and overall cultural creativity of the Pacific islanders. For example, British anthropologists G. Elliot Smith and W. J. Perry assumed that only Egyptians would have been skilled enough to navigate and colonize the Pacific. They inferred that the Egyptians even crossed the Pacific to found the great civilizations of the New World (North and South America). In 1947 Norwegian adventurer Thor Heyerdahl drifted on a balsa-log raft westward with the winds and currents across the Pacific from South America to prove his theory that Pacific islanders were Native Americans (also called American Indians). Later Heyerdahl suggested that the Pacific was peopled by three migrations: by Native Americans from the Pacific Northwest of North America drifting to Hawaii, by Peruvians drifting to Easter Island, and by Melanesians. In 1969 he crossed the Atlantic in an Egyptian-style reed boat to prove Egyptian influences in the Americas. Contrary to these theorists, the overwhelming evidence of physical anthropology, linguistics, and archaeology shows that the Pacific islanders came from Southeast Asia and were skilled enough as navigators to sail against the prevailing winds and currents.

16. By stating that the theories are “mutually exclusive” the author means that

Ⓐ if one of the theories is true, then all the others must be false

Ⓑ the differences between the theories are unimportant

Ⓒ taken together, the theories cover all possibilities

Ⓓ the theories support each other

17. The word “overwhelming” in the passage is closest in meaning to

Ⓐ powerful

Ⓑ favorable

Ⓒ current

Ⓓ reasonable

18. According to paragraph 2, which of the following led some early researchers to believe that the Pacific islanders originally came from Egypt?

Ⓐ Egyptians were known to have founded other great civilizations.

Ⓑ Sailors from other parts of the world were believed to lack the skills needed to travel across the ocean.

Ⓒ Linguistic, archaeological, and biological data connected the islands to Egypt.

Ⓓ Egyptian accounts claimed responsibility for colonizing the Pacific as well as the Americas.

19. Which of the following can be inferred from paragraph 2 about early theories of where the first inhabitants of the Pacific islands came from?

Ⓐ They were generally based on solid evidence.

Ⓑ They tried to account for the origin of the characteristic features of the languages spoken by Pacific islanders.

Ⓒ They assumed that the peoples living in Southeast Asia did not have the skills needed to sail to the Pacific islands.

Ⓓ They questioned the ideas of G. Elliot Smith and W. J. Perry.

PARAGRAPH 3

The basic cultural requirements for the successful colonization of the Pacific islands include the appropriate boat-building, sailing, and navigation skills to get to the islands in the first place; domesticated plants and gardening skills suited to often marginal conditions; and a varied inventory of fishing implements and techniques. It is now generally believed that these prerequisites originated with peoples speaking Austronesian languages (a group of several hundred related languages) and began to emerge in Southeast Asia by about 5000 B.C.E. The culture of that time, based on archaeology and linguistic reconstruction, is assumed to have had a broad inventory of cultivated plants including taro, yams, banana, sugarcane, breadfruit, coconut, sago, and rice. Just as important, the culture also possessed the basic foundation for an effective maritime adaptation, including outrigger canoes and a variety of fishing techniques that could be effective for overseas voyaging.

20. The word "implements" in the passage is closest in meaning to

Ⓐ skills

Ⓑ tools

Ⓒ opportunities

Ⓓ practices

21. All of the following are mentioned in paragraph 3 as required for successful colonization of the Pacific islands EXCEPT

Ⓐ knowledge of various Austronesian languages

Ⓑ a variety of fishing techniques

Ⓒ navigational skills

Ⓓ knowledge of plant cultivation

22. In paragraph 3, why does the author provide information

about the types of crops grown and boats used in Southeast Asia during the period around 5000 B.C.E.?

Ⓐ To evaluate the relative importance of agriculture and fishing to early Austronesian peoples

Ⓑ To illustrate the effectiveness of archaeological and linguistic methods in discovering details about life in ancient times

Ⓒ To contrast living conditions on the continent of Asia with living conditions on the Pacific islands

Ⓓ To demonstrate that people from this region had the skills and resources necessary to travel to and survive on the Pacific islands

PARAGRAPH 4

Contrary to the arguments of some that much of the Pacific was settled by Polynesians accidentally marooned after being lost and adrift, it seems reasonable that this feat was accomplished by deliberate colonization expeditions that set out fully stocked with food and domesticated plants and animals. Detailed studies of the winds and currents using computer simulations suggest that drifting canoes would have been a most unlikely means of colonizing the Pacific. These expeditions were likely driven by population growth and political dynamics on the home islands, as well as the challenge and excitement of exploring unknown waters. Because all Polynesians, Micronesians, and many Melanesians speak Austronesian languages and grow crops derived from Southeast Asia, all these peoples most certainly derived from that region and not the New World or elsewhere. The undisputed pre-Columbian presence in Oceania of the sweet potato, which is a New World domesticate, has sometimes been used to support Heyerdahl's "American Indians in the Pacific" theories. However, this is one plant out of a long list of Southeast Asian domesticates. As Patrick Kirch, an American anthropologist, points out, rather than being brought by rafting South Americans,

sweet potatoes might just have easily been brought back by returning Polynesian navigators who could have reached the west coast of South America.

23. Which of the sentences below best expresses the essential information in the highlighted sentence in paragraph 4? Incorrect choices change the meaning in important ways or leave out essential information.

Ⓐ Some people have argued that the Pacific was settled by traders who became lost while transporting domesticated plants and animals.

Ⓑ The original Polynesian settlers were probably marooned on the islands, but they may have been joined later by carefully prepared colonization expeditions.

Ⓒ Although it seems reasonable to believe that colonization expeditions would set out fully stocked, this is contradicted by much of the evidence.

Ⓓ The settlement of the Pacific islands was probably intentional and well planned rather than accidental as some people have proposed.

24. The word “undisputed” in the passage is closest in meaning to

Ⓐ mysterious

Ⓑ unexpected

Ⓒ acknowledged

Ⓓ significant

25. According to paragraph 4, which of the following is NOT an explanation for why a group of people might have wanted to colonize the Pacific islands?

Ⓐ As their numbers increased, they needed additional territory.

Ⓑ The winds and currents made the islands easy to reach.

Ⓒ The political situation at home made emigration desirable.

Ⓓ They found exploration challenging and exciting.

26. Why does the author mention the views of "Patrick Kirch"?

Ⓐ To present evidence in favor of Heyerdahl's idea about American Indians reaching Oceania

Ⓑ To emphasize the familiarity of Pacific islanders with crops from many different regions of the world

Ⓒ To indicate that a supposed proof for Heyerdahl's theory has an alternative explanation

Ⓓ To demonstrate that some of the same crops were cultivated in both South America and Oceania

PARAGRAPH 2

Speculation on the origin of these Pacific islanders began as soon as outsiders encountered them; in the absence of solid linguistic, archaeological, and biological data, many fanciful and mutually exclusive theories were devised. Pacific islanders were variously thought to have come from North America, South America, Egypt, Israel, and India, as well as Southeast Asia. ■ Many older theories implicitly deprecated the navigational abilities and overall cultural creativity of the Pacific islanders. ■ For example, British anthropologists G. Elliot Smith and W. J. Perry assumed that only Egyptians would have been skilled enough to navigate and colonize the Pacific. ■ They inferred that the Egyptians even crossed the Pacific to found the great civilizations of the New World (North and South America). ■ In 1947 Norwegian adventurer Thor Heyerdahl drifted on a balsa-log raft westward with the winds and currents across the Pacific from South America to prove his theory that Pacific islanders were Native Americans (also called American Indians). Later Heyerdahl suggested that the Pacific was peopled by three migrations: by Native Americans from the Pacific Northwest of North America drifting to Hawaii, by Peruvians drifting to Easter Island, and

by Melanesians. In 1969 he crossed the Atlantic in an Egyptian-style reed boat to prove Egyptian influences in the Americas. Contrary to these theorists, the overwhelming evidence of physical anthropology, linguistics, and archaeology shows that the Pacific islanders came from Southeast Asia and were skilled enough as navigators to sail against the prevailing winds and currents.

27. Look at the four squares [■] that indicate where the following sentence can be added to the passage.

Later theories concentrated on journeys in the other direction.

Where would the sentence best fit?

Ⓐ Speculation on the origin of these Pacific islanders began as soon as outsiders encountered them; in the absence of solid linguistic, archaeological, and biological data, many fanciful and mutually exclusive theories were devised. Pacific islanders were variously thought to have come from North America, South America, Egypt, Israel, and India, as well as Southeast Asia. **Later theories concentrated on journeys in the other direction.** Many older theories implicitly deprecated the navigational abilities and overall cultural creativity of the Pacific islanders. ■ For example, British anthropologists G. Elliot Smith and W. J. Perry assumed that only Egyptians would have been skilled enough to navigate and colonize the Pacific. ■ They inferred that the Egyptians even crossed the Pacific to found the great civilizations of the New World (North and South America). ■ In 1947 Norwegian adventurer Thor Heyerdahl drifted on a balsa-log raft westward with the winds and currents across the Pacific from South America to prove his theory that Pacific islanders were Native Americans (also called American Indians). Later Heyerdahl suggested that the Pacific was peopled by three migrations: by Native Americans from the Pacific Northwest of North America drifting to Hawaii,

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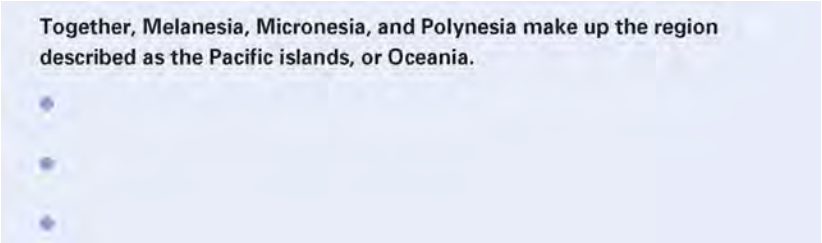
soon as outsiders encountered them; in the absence of solid linguistic, archaeological, and biological data, many fanciful and mutually exclusive theories were devised. Pacific islanders were variously thought to have come from North America, South America, Egypt, Israel, and India, as well as Southeast Asia. ■ Many older theories implicitly deprecated the navigational abilities and overall cultural creativity of the Pacific islanders. ■ For example, British anthropologists G. Elliot Smith and W. J. Perry assumed that only Egyptians would have been skilled enough to navigate and colonize the Pacific. ■ They inferred that the Egyptians even crossed the Pacific to found the great civilizations of the New World (North and South America). **Later theories concentrated on journeys in the other direction.** In 1947 Norwegian adventurer Thor Heyerdahl drifted on a balsa-log raft westward with the winds and currents across the Pacific from South America to prove his theory that Pacific islanders were Native Americans (also called American Indians). Later Heyerdahl suggested that the Pacific was peopled by three migrations: by Native Americans from the Pacific Northwest of North America drifting to Hawaii, by Peruvians drifting to Easter Island, and by Melanesians. In 1969 he crossed the Atlantic in an Egyptian-style reed boat to prove Egyptian influences in the Americas. Contrary to these theorists, the overwhelming evidence of physical anthropology, linguistics, and archaeology shows that the Pacific islanders came from Southeast Asia and were skilled enough as navigators to sail against the prevailing winds and currents.

28. **Directions:** An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the THREE answer choices that express the most important ideas in the passage. Some sentences do not belong in the summary because they express ideas that are not presented in the passage or are minor ideas

in the passage.

Write your answer choices in the spaces where they belong. You can either write the letter of your answer choice or you can copy the sentence.



Answer Choices

1. A Many theories about how inhabitants first came to the islands have been proposed, including the idea that North and South Americans simply drifted across the ocean.
2. B Although early colonizers of the islands probably came from agriculture-based societies, they were obliged to adopt an economy based on fishing.
3. C New evidence suggests that, rather than being isolated, Pacific islanders engaged in trade and social interaction with peoples living in Southeast Asia.
4. D Computer simulations of the winds and currents in the Pacific have shown that reaching the Pacific Islands was probably much easier than previously thought.
5. E It is now believed that the process of colonization required a great deal of skill, determination, and planning and could not have happened by chance.
6. F Using linguistic and archaeological evidence, anthropologists have determined that the first Pacific islanders were Austronesian people from Southeast Asia.

Directions: Read the passage. Then answer the questions. Give yourself 20 minutes to complete this practice set.

THE CAMBRIAN EXPLOSION

The geologic timescale is marked by significant geologic and biological events, including the origin of Earth about 4.6 billion years ago, the origin of life about 3.5 billion years ago, the origin of eukaryotic life-forms (living things that have cells with true nuclei) about 1.5 billion years ago, and the origin of animals about 0.6 billion years ago. The last event marks the beginning of the Cambrian period. Animals originated relatively late in the history of Earth—in only the last 10 percent of Earth's history. During a geologically brief 100-million-year period, all modern animal groups (along with other animals that are now extinct) evolved. This rapid origin and diversification of animals is often referred to as "the Cambrian explosion."

Scientists have asked important questions about this explosion for more than a century. Why did it occur so late in the history of Earth? The origin of multicellular forms of life seems a relatively simple step compared to the origin of life itself. Why does the fossil record not document the series of evolutionary changes during the evolution of animals? Why did animal life evolve so quickly? Paleontologists continue to search the fossil record for answers to these questions.

One interpretation regarding the absence of fossils during this important 100-million-year period is that early animals were soft bodied and simply did not fossilize. Fossilization of soft-bodied animals is less likely than fossilization of hard-bodied animals, but it does occur. Conditions that promote fossilization of soft-bodied animals include very rapid covering by sediments that create an environment that discourages decomposition. In fact, fossil beds containing soft-bodied animals have been known for many years.

The Ediacara fossil formation, which contains the oldest known animal fossils, consists exclusively of soft-bodied forms. Although named after a site in Australia, the Ediacara formation is worldwide in

distribution and dates to Precambrian times. This 700-million-year-old formation gives few clues to the origins of modern animals, however, because paleontologists believe it represents an evolutionary experiment that failed. It contains no ancestors of modern animal groups.

A slightly younger fossil formation containing animal remains is the Tommotian formation, named after a locale in Russia. It dates to the very early Cambrian period, and it also contains only soft-bodied forms. At one time, the animals present in these fossil beds were assigned to various modern animal groups, but most paleontologists now agree that all Tommotian fossils represent unique body forms that arose in the early Cambrian period and disappeared before the end of the period, leaving no descendants in modern animal groups.

A third fossil formation containing both soft-bodied and hard-bodied animals provides evidence of the result of the Cambrian explosion. This fossil formation, called the Burgess Shale, is in Yoho National Park in the Canadian Rocky Mountains of British Columbia. Shortly after the Cambrian explosion, mud slides rapidly buried thousands of marine animals under conditions that favored fossilization. These fossil beds provide evidence of about 32 modern animal groups, plus about 20 other animal body forms that are so different from any modern animals that they cannot be assigned to any one of the modern groups. These unassignable animals include a large swimming predator called *Anomalocaris* and a soft-bodied animal called *Wiwaxia*, which ate detritus or algae. The Burgess Shale formation also has fossils of many extinct representatives of modern animal groups. For example, a well-known Burgess Shale animal called *Sidneyia* is a representative of a previously unknown group of arthropods (a category of animals that includes insects, spiders, mites, and crabs).

Fossil formations like the Burgess Shale show that evolution cannot always be thought of as a slow progression. The Cambrian explosion involved rapid evolutionary diversification, followed by the extinction of many unique animals. Why was this evolution so rapid? No one really knows. Many zoologists believe that it was because so many

ecological niches were available with virtually no competition from existing species. Will zoologists ever know the evolutionary sequences in the Cambrian explosion? Perhaps another ancient fossil bed of soft-bodied animals from 600-million-year-old seas is awaiting discovery.

Directions: Now answer the questions.

PARAGRAPH 1

The geologic timescale is marked by significant geologic and biological events, including the origin of Earth about 4.6 billion years ago, the origin of life about 3.5 billion years ago, the origin of eukaryotic life-forms (living things that have cells with true nuclei) about 1.5 billion years ago, and the origin of animals about 0.6 billion years ago. The last event marks the beginning of the Cambrian period. Animals originated relatively late in the history of Earth—in only the last 10 percent of Earth's history. During a geologically brief 100-million-year period, all modern animal groups (along with other animals that are now extinct) evolved. This rapid origin and diversification of animals is often referred to as "the Cambrian explosion."

29. The word "significant" in the passage is closest in meaning to

Ⓐ numerous

Ⓑ important

Ⓒ unexplained

Ⓓ sudden

30. The word "relatively" in the passage is closest in meaning to

Ⓐ surprisingly

Ⓑ collectively

Ⓒ comparatively

Ⓓ characteristically

31. The word “diversification” in the passage is closest in meaning to

Ⓐ emergence of many varieties

Ⓑ steady decline in number

Ⓒ gradual increase in body size

Ⓓ sudden disappearance

32. The period discussed in the passage is referred to as an “explosion” because it

Ⓐ occurred 0.6 billion years ago, late in Earth’s history

Ⓑ was characterized by the unusually fast evolution of many new life-forms

Ⓒ was characterized by widespread animal extinction

Ⓓ was characterized by violent volcanic eruptions

PARAGRAPHS 2 & 3

Scientists have asked important questions about this explosion for more than a century. Why did it occur so late in the history of Earth? The origin of multicellular forms of life seems a relatively simple step compared to the origin of life itself. Why does the fossil record not document the series of evolutionary changes during the evolution of animals? Why did animal life evolve so quickly? Paleontologists continue to search the fossil record for answers to these questions.

One interpretation regarding the absence of fossils during this important 100-million-year period is that early animals were soft bodied and simply did not fossilize. Fossilization of soft-bodied animals is less likely than fossilization of hard-bodied animals, but it does occur. Conditions that promote fossilization of soft-bodied

animals include very rapid covering by sediments that create an environment that discourages decomposition. In fact, fossil beds containing soft-bodied animals have been known for many years.

33. According to paragraph 2, which of the following is NOT a question that paleontologists asked about the Cambrian explosion?

Ⓐ Why was the origin of life a simple step in Earth's history?

Ⓑ Why did it take so long for multicellular organisms to develop?

Ⓒ Why did animal life evolve so rapidly?

Ⓓ Why does the fossil record lack evidence of animal evolution during that time?

34. Which of the following best describes the relationship between paragraph 2 and paragraph 3?

Ⓐ Paragraph 2 puts forward several scientific claims, one of which is rejected in paragraph 3.

Ⓑ Paragraph 2 poses several questions, and paragraph 3 offers a possible answer to one of them.

Ⓒ Paragraph 2 presents outdated traditional views, while paragraph 3 presents the current scientific conclusions.

Ⓓ Paragraph 2 introduces a generalization that is illustrated by specific examples in paragraph 3.

35. The word "promote" in the passage is closest in meaning to

Ⓐ complicate

Ⓑ prevent

Ⓒ encourage

Ⓓ affect

PARAGRAPH 4

The Ediacara fossil formation, which contains the oldest known animal fossils, consists exclusively of soft-bodied forms. Although named after a site in Australia, the Ediacara formation is worldwide in distribution and dates to Precambrian times. This 700-million-year-old formation gives few clues to the origins of modern animals, however, because paleontologists believe it represents an evolutionary experiment that failed. It contains no ancestors of modern animal groups.

36. Which of the following is NOT mentioned in paragraph 4 as being true of the Ediacara formation?

Ⓐ It contains fossils that date back to the Precambrian period.

Ⓑ It contains only soft-bodied animal fossils.

Ⓒ It is located on a single site in Australia.

Ⓓ It does not contain any fossils of the ancestors of modern animals.

PARAGRAPH 5

A slightly younger fossil formation containing animal remains is the Tommotian formation, named after a locale in Russia. It dates to the very early Cambrian period, and it also contains only soft-bodied forms. At one time, the animals present in these fossil beds were assigned to various modern animal groups, but most paleontologists now agree that all Tommotian fossils represent unique body forms that arose in the early Cambrian period and disappeared before the end of the period, leaving no descendants in modern animal groups.

37. Which of the sentences below best expresses the essential information in the highlighted sentence in paragraph 5? Incorrect choices change the meaning in

important ways or leave out essential information.

Ⓐ The animals found in the Tommotian fossil bed were once thought to belong to a variety of modern animal groups, but now they are thought to have descended from a single group.

Ⓑ Animals in the Tommotian fossil beds were initially assigned to modern animal groups but are now thought to belong to groups that emerged and died out during the Cambrian period.

Ⓒ Though at first they thought otherwise, paleontologists now agree that the animals in the Tommotian formation have body forms from which modern animals have descended.

Ⓓ It is unclear whether the Tommotian fossils from the early Cambrian period represent unique body forms or whether they should be assigned to various modern animal groups.

PARAGRAPH 6

A third fossil formation containing both soft-bodied and hard-bodied animals provides evidence of the result of the Cambrian explosion. This fossil formation, called the Burgess Shale, is in Yoho National Park in the Canadian Rocky Mountains of British Columbia. Shortly after the Cambrian explosion, mud slides rapidly buried thousands of marine animals under conditions that favored fossilization. These fossil beds provide evidence of about 32 modern animal groups, plus about 20 other animal body forms that are so different from any modern animals that they cannot be assigned to any one of the modern groups. These unassignable animals include a large swimming predator called *Anomalocaris* and a soft-bodied animal called *Wiwaxia*, which ate detritus or algae. The Burgess Shale formation also has fossils of many extinct representatives of modern animal groups. For example, a well-known Burgess Shale animal called *Sidneyia* is a representative of a previously unknown group of arthropods (a category of animals that includes insects, spiders, mites,

and crabs).

38. Why does the author mention “Anomalocaris” and “Wiwaxia”?

Ⓐ To contrast predators with animals that eat plants such as algae

Ⓑ To question the effects of rapid mud slides on fossilization

Ⓒ To suggest that much is still unknown about animals found in the Burgess Shale

Ⓓ To provide examples of fossils that cannot be assigned to a modern animal group

39. “Sidneyia” is an example of

Ⓐ a relative of *Anomalocaris* and *Wiwaxia*

Ⓑ a previously unknown Burgess Shale animal

Ⓒ an extinct member of a currently existing category of animals

Ⓓ an animal that cannot be assigned to any modern animal group

PARAGRAPH 7

Fossil formations like the Burgess Shale show that evolution cannot always be thought of as a slow progression. The Cambrian explosion involved rapid evolutionary diversification, followed by the extinction of many unique animals. Why was this evolution so rapid? No one really knows. Many zoologists believe that it was because so many ecological niches were available with virtually no competition from existing species. Will zoologists ever know the evolutionary sequences in the Cambrian explosion? Perhaps another ancient fossil bed of soft-bodied animals from 600-million-year-old seas is awaiting discovery.

40. What can be inferred from paragraph 7 about why the Cambrian explosion is so unusual?

Ⓐ It generated new ecological niches through the extinction of many unique animals.

Ⓑ It was a period of rapid evolution, and evolution is often thought of as a slow process.

Ⓒ It is a period whose evolutionary sequences are clearly marked.

Ⓓ It generated a very large number of ancient fossil beds containing soft-bodied animals.

PARAGRAPH 3

One interpretation regarding the absence of fossils during this important 100-million-year period is that early animals were soft bodied and simply did not fossilize. ■ Fossilization of soft-bodied animals is less likely than fossilization of hard-bodied animals, but it does occur. ■ Conditions that promote fossilization of soft-bodied animals include very rapid covering by sediments that create an environment that discourages decomposition. ■ In fact, fossil beds containing soft-bodied animals have been known for many years. ■

11. Look at the four squares [■] that indicate where the following sentence can be added to the passage.

It is relatively rare because the fossilization of soft-bodied animals requires a special environment.

Where would the sentence best fit?

Ⓐ One interpretation regarding the absence of fossils during this important 100-million-year period is that early animals were soft bodied and simply did not fossilize. **It is relatively rare because the fossilization of soft-bodied animals requires a special environment.** Fossilization of soft-bodied animals is less likely than fossilization of hard-bodied animals, but it does

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12. **Directions:** An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the THREE answer choices that express the most important ideas in the passage. Some sentences do not belong in the summary because they express ideas that are not presented in the passage or are minor ideas in the passage.

    Write your answer choices in the spaces where they belong. You can either write the letter of your answer choice or you can copy the sentence.

Answer Choices

1. A The Cambrian period is significant because it marks the emergence of eukaryotic life-forms—organisms that have cells with true nuclei.
2. B Little is known about the stages of evolution during the Cambrian period, in part because early animals were soft bodied and could fossilize only under particular conditions.
3. C The Ediacara fossil formation provides the most information

about the Cambrian explosion, while the earlier Tommotian and Burgess Shale formations give clues about Precambrian evolution.

4. D While animal fossils from before the Cambrian explosion have no modern descendants, many animals that evolved during the Cambrian explosion can be assigned to modern groups.
5. E Zoologists are awaiting the discovery of a 600-million-year-old fossil formation in order to be able to form a theory of how animal evolution progressed.
6. F Although the reasons for the rapid evolution of animals during the Cambrian period are not known, one proposed explanation is an abundance of niches with a lack of competitors.

LISTENING

This section measures your ability to understand conversations and lectures in English.

Listen to each conversation and lecture only one time. After each conversation and lecture, you will answer some questions about it. Answer each question based on what is stated or implied by the speakers.

You may take notes while you listen and use your notes to help you answer the questions. Your notes will **not** be scored.

In some questions you will see this icon: . This means that you will hear, but not see, the question.

Answer each question before moving on. Do not return to previous questions.

It will take about 60 minutes to listen to the conversations and lectures and answer the questions about them.

Directions: Listen to Track 22. 🎧

Directions: Now answer the questions.

1. What do the speakers mainly discuss?
   - Ⓐ Why the woman has little in common with her roommates
   - Ⓑ How the woman can keep up in her academic studies
   - Ⓒ The woman's adjustment to life at the university
   - Ⓓ The woman's decision to transfer to another university
2. Why does the woman mention her hometown?
   - Ⓐ To draw a contrast to her current situation
   - Ⓑ To acknowledge that she is accustomed to living in big cities
   - Ⓒ To indicate that she has known some people on campus for a long time
   - Ⓓ To emphasize her previous success in academic studies
3. What does the woman imply about the incident that

occurred in her sociology class?

Ⓐ She was embarrassed because she gave an incorrect answer.

Ⓑ She was upset because the professor seemed to ignore her.

Ⓒ She was confused by the organization of the professor's lecture.

Ⓓ She was surprised by the comments of the other students.

4. According to the counselor, why should the woman visit her professor's office? *Choose 2 answers.*

[A] To offer a compliment

[B] To offer to help other students

[C] To introduce herself

[D] To suggest ways of making the class more personal

5. What does the woman imply about joining the string quartet?

Ⓐ It would enable her to continue a hobby she gave up when she was ten.

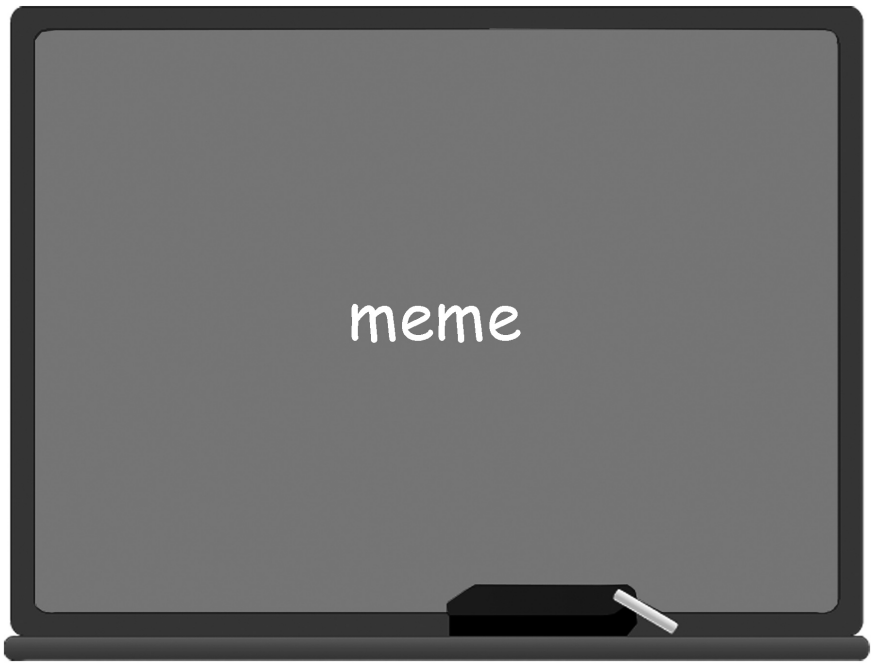
Ⓑ It would allow her to spend more time in her major area of study.

Ⓒ It would help her stop worrying about her academic studies.

Ⓓ It would be a way to meet students with similar interests.

Directions: Listen to Track 23. 🎧

Sociology


meme

replicator

longevity

Directions: Now answer the questions.

6. What is the main purpose of the lecture?

   Ⓐ To introduce a method that can help students remember new information

Ⓑ To introduce a way to study how information passes from one person to another

Ⓒ To explain the differences between biological information and cultural information

Ⓓ To explain the differences between stories, songs, and other pieces of information

7. Why does the professor tell the story about alligators?

Ⓐ To explain the difference between true and false stories

Ⓑ To draw an analogy between alligator reproduction and cultural transmission

Ⓒ To give an example of a piece of information that functions as a meme

Ⓓ To show how a story can gradually change into a song

8. According to the professor, which of the following are examples of meme transfer? *Choose 2 answers.*

[A] Telling familiar stories

[B] Sharing feelings

[C] Composing original music

[D] Learning a scientific theory

9. What example does the professor give of a meme's longevity?

Ⓐ A story has been changing since it first appeared in the 1930s.

Ⓑ A person remembers a story for many years.

Ⓒ A gene is passed on through many generations without changing.

Ⓓ A song quickly becomes popular all over the world.

10. What does the professor compare to a housefly laying many eggs?

Ⓐ A child learning many different ideas from his or her parents

Ⓑ Alligators reproducing in New York sewers

Ⓒ Different people remembering different versions of a story

Ⓓ A person singing the “Twinkle, twinkle” song many times

11. Listen to Track 24. 🎧

Ⓐ To explain why some memes do not change much

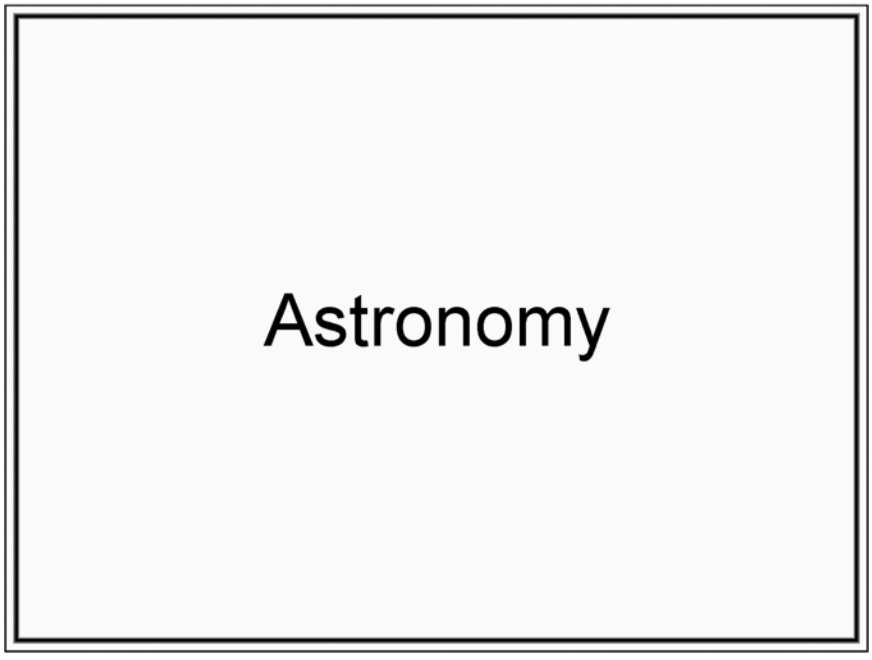
Ⓑ To ask the students for their opinion about songs as memes

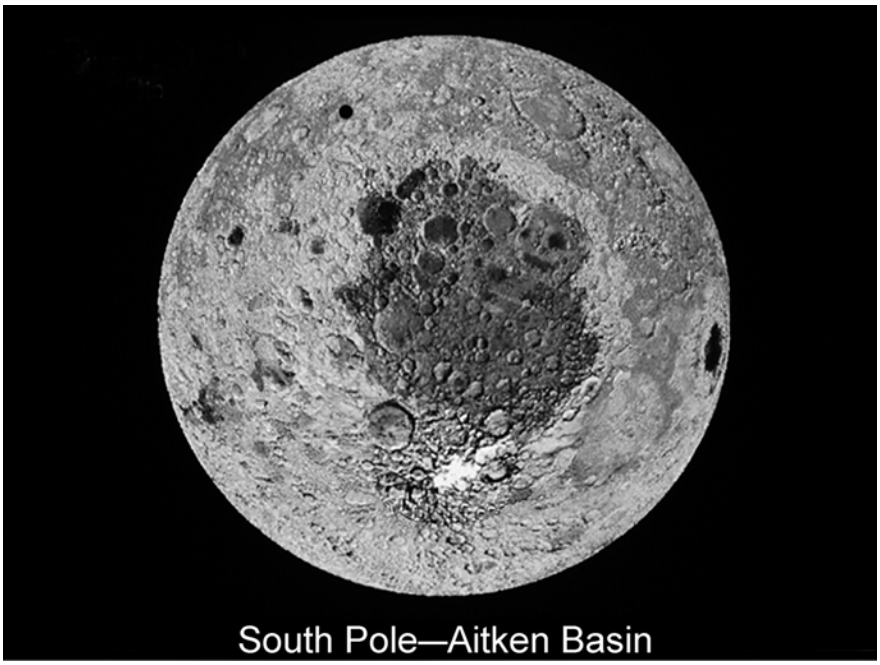
Ⓒ To acknowledge a problem with the meme theory

Ⓓ To ask the students to test an idea about memes

Note: The actual lecture contains color images. The colors from one image are discussed by the professor. You do not need to see the colors to understand the lecture or to answer the questions.

Directions: Listen to Track 25. 🎧




South Pole—Aitken Basin

Directions: Now answer the questions.

12. What is the main purpose of the lecture?

Ⓐ To explain why scientists disagree about the age of the Moon

Ⓑ To present arguments in favor of another Moon landing

Ⓒ To explain how scientists discovered a crater on the far side of the Moon

Ⓓ To review some findings of a recent mission to the Moon

13. What does the professor imply about the spacecraft Clementine?

Ⓐ It sent back the first color photographs of the Moon.

Ⓑ It was powered by solar energy.

Ⓒ It landed on the far side of the Moon.

Ⓓ It flew over the Moon's polar regions.

14. Why does the professor mention the Moon's mantle?

Ⓐ To explain how scientists are able to estimate the age of meteor impacts

Ⓑ To indicate what part of the Moon could provide key evidence about the Moon's composition

Ⓒ To explain how scientists know that meteors penetrate the Moon's crust

Ⓓ To point out an obvious difference between the Moon and Earth

15. Why is the South Pole–Aitken Basin thought to be exceptionally old?

Ⓐ The walls of the Basin are more reflective than those of most other craters.

Ⓑ Testing of rocks from the Basin's floor proved them to be as old as the Moon itself.

Ⓒ Many small craters have been detected at the bottom of the Basin.

Ⓓ A large amount of dust has been detected in and around the Basin.

16. Why does the professor consider it important to find out if water ice exists on the Moon? *Choose 2 answers.*

[A] Water ice could be processed to provide breathable air for astronauts.

[B] One component of water ice could be used as a fuel for rockets.

[C] Water ice could contain evidence of primitive life on the Moon.

[D] Water ice could be tested to find out what type of meteors crashed into the Moon.

17. Listen to Track 26. 🎧

Ⓐ It is likely that the current age estimates for the South Pole–Aitken Basin are based on incorrect assumptions.

Ⓑ It is disappointing how little the technology to analyze Moon rocks has advanced since the days of the Moon landings.

Ⓒ Too few of the original Moon-rock samples were dated

accurately.

Ⓓ It is important to obtain a more precise determination of the Moon's age.

Directions: Listen to Track 27. 🎧

Directions: Now answer the questions.

18. What is the conversation mainly about?

Ⓐ An assignment about which the student would like advice

Ⓑ Concerns as to whether the student should be in the professor's course

Ⓒ The selection of films to be viewed by students in a film theory course

Ⓓ The structure and sequence of courses in the Film Department

19. What is the professor's attitude toward the student's high school film course?

Ⓐ He does not consider it satisfactory preparation for the class he

teaches.

Ⓑ He does not think that literary works should be discussed in film classes.

Ⓒ He believes that this type of course often confuses inexperienced students.

Ⓓ He feels that the approach taken in this course is the best way to learn about film.

20. Why was the student permitted to sign up for the professor's film theory course?

Ⓐ Her high school course fulfilled the requirement for previous course work.

Ⓑ The computer system that usually blocks students was not working properly.

Ⓒ An employee in the department did not follow instructions.

Ⓓ The professor made an exception in her case.

21. Why does the professor decide to allow the student to remain in his class? *Choose 2 answers.*

[A] She needs to take the course in order to graduate.

[B] He is impressed with her eagerness to continue.

[C] She convinces him that she does have adequate preparation for the course.

[D] He learns that she is not studying film as her main course of study.

22. What does the professor advise the student to do in order to keep up with the class she is in?

Ⓐ Take the introductory course

Ⓑ Watch some video recordings

Ⓒ Do extra reading

Ⓓ Drop out of her marketing class

Directions: Listen to Track 28. 🎧

Chemistry

Directions: Now answer the questions.

23. What is the main purpose of the lecture?

Ⓐ To discuss recent innovations in laboratory equipment

Ⓑ To give an example of a practical use for a particular scientific

technique

Ⓒ To familiarize students with the chemical composition of paint pigments

Ⓓ To show how researchers were able to restore a particular work of art

24. What does the professor imply when he mentions an art historian?

Ⓐ Art historians have been learning how to use spectroscopes.

Ⓑ Scientists need to learn how art historians analyze paintings.

Ⓒ Confirming the authenticity of artworks requires collaboration.

Ⓓ Spectroscopic analysis can help identify a painter's techniques.

25. Why does the professor discuss the presence of zinc in paint pigments?

Ⓐ To explain why some paints may deteriorate over the course of time

Ⓑ To stress the need for caution when attempting to restore old artworks

Ⓒ To show how pigments differ from varnishes and binding agents

Ⓓ To show how spectroscopy can help establish the age of a painting

26. According to the professor, what is the primary advantage of spectroscopy over other laboratory methods for analyzing artworks?

Ⓐ It does not damage the artworks.

Ⓑ It provides a more accurate analysis than other methods do.

Ⓒ It uses equipment that can be transferred to other locations.

Ⓓ It can be used by individuals with little scientific training.

27. What is one way the professor mentions that chemists can help with art restoration?

Ⓐ By re-creating the pigments and binding agents used by artists of earlier eras

Ⓑ By removing pigments and binding agents that dissolve paintings over time

Ⓒ By creating protective coatings of paint that do not damage original paintings

Ⓓ By developing ways to safely remove paint added by previous restorers

28. Listen to Track 29. 🎧

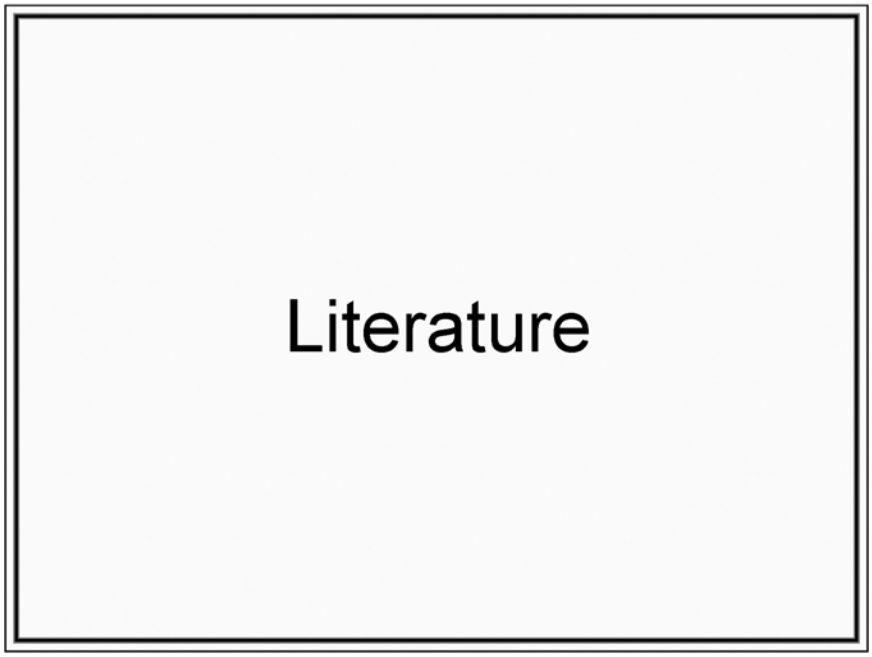
Ⓐ He is searching for a synonym for the term.

Ⓑ He is not sure how much information the students need.

Ⓒ He is going to briefly address a related topic.

Ⓓ He is giving the students a writing assignment.

Directions: Listen to Track 30. 🎧



folktales
fairy tales

Directions: Now answer the questions.

29. What is the lecture mainly about?

Ⓐ Oral traditions in folktales and fairy tales

Ⓑ Common characters and plots in folktales and fairy tales

Ⓒ Differences between folktales and fairy tales

Ⓓ Hidden meanings in folktales and fairy tales

30. What does the professor mean when he says that folktales are communal?

Ⓐ They vary little from one community to another.

Ⓑ They serve to strengthen ties among individuals within a community.

Ⓒ They relate important events in the history of a community.

Ⓓ They can be adapted to meet the needs of a community.

31. Why does the professor clarify the concept of a “fairy”?

Ⓐ To explain the origins of the term “fairy tale”

Ⓑ To eliminate a possible definition of the term “fairy tale”

Ⓒ To support a claim about the function of fairy tales

Ⓓ To indicate that fairies are a major element in fairy tales

32. What does the professor say about the setting of fairy tales?

Ⓐ The tales are usually set in a nonspecific location.

Ⓑ The location is determined by the country of origin of a tale.

Ⓒ The tales are set in a location familiar to the author.

Ⓓ A storyteller varies the location of a tale depending on the audience.

33. In the lecture, the professor discusses characteristics of folktales and fairy tales. Indicate the characteristics of each type of tale. *Put a check in the correct boxes.*

	Folktales	Fairy Tales
Their appeal is now mainly to children.		
The plot is the only stable element.		
The tales are transmitted orally.		

There is one accepted version.		
Characters are well developed.		
The language is relatively formal.		

34. Listen to Track 31. 🎧

Ⓐ To support the student's statement

Ⓑ To ask the student to clarify her statement

Ⓒ To find out if the students know what story the line comes from

Ⓓ To clarify the relationship between time and space in fairy tales

SPEAKING

This section measures your ability to speak in English about a variety of topics.

There are six questions in this section. For each question, you will be given a short time to prepare your response. When the preparation time is up, answer the question as completely as possible in the time indicated for that question. You should record your responses so that you can review them later and compare them with the answer key and scoring rubrics.

1. You will now be asked to speak about a familiar topic. Give yourself 15 seconds to prepare your response. Then record yourself speaking for 45 seconds.

   Listen to Track 32. 🎧

   Talk about a place you enjoyed going to or visiting when you were a child. Describe the place. Explain why you enjoyed it.

   Preparation Time: 15 seconds

   Response Time: 45 seconds

2. You will now be asked to give your opinion about a familiar topic. Give yourself 15 seconds to prepare your response. Then record yourself speaking for 45 seconds.

   Listen to Track 33. 🎧

   Do you agree or disagree with the following statement? Why or why not? Use details and examples to explain your answer.

   It is more important to study math or science than it is to study art or literature.

   Preparation Time: 15 seconds

Response Time: 45 seconds

3. You will now read a short passage and listen to a conversation on the same topic. You will then be asked a question about them. After you hear the question, give yourself 30 seconds to prepare your response. Then record yourself speaking for 60 seconds.

Listen to Track 34. 🎧

Reading Time: 50 seconds

Campus Dining Club Announced

Starting this year, the university dining hall will be transformed into The Campus Dining Club for one week at the end of each semester. During the last week of each semester, the dining hall will feature special meals prepared by the university's culinary arts students. The school feels that this will give students who are studying cooking and food preparation valuable experience that will help them later, when they pursue careers. The university has announced that it will charge a small additional fee for these dinners in order to pay for the special gourmet food ingredients that will be required.

Listen to Track 35. 🎧

The man expresses his opinion about the plan described in the article. Briefly summarize the plan. Then state his opinion about the plan and explain the reasons he gives for holding that opinion.

Preparation Time: 30 seconds

Response Time: 60 seconds

4. You will now read a short passage and listen to a lecture on the same topic. You will then be asked a question about them. After you hear the question, give yourself 30 seconds to prepare your response. Then record yourself speaking for 60 seconds.

Listen to Track 36. 🎧

Reading Time: 45 seconds

Target Marketing

Advertisers in the past have used radio and television in an attempt to provide information about their products to large, general audiences; it was once thought that the best way to sell a product was to advertise it to as many people as possible. However, more recent trends in advertising have turned toward target marketing. Target marketing is the strategy of advertising to smaller, very specific audiences—audiences that have been determined to have the greatest need or desire for the product being marketed. Target marketing has proved to be very effective in reaching potential customers.

Listen to Track 37. 🎧

Using the professor's examples, explain the advertising technique of target marketing.

Preparation Time: 30 seconds

Response Time: 60 seconds

5. You will now listen to part of a conversation. You will then be asked a question about it. After you hear the question, give yourself 20 seconds to prepare your response. Then record yourself speaking for 60 seconds.

   Listen to Track 38. 🎧

Briefly summarize the problem the speakers are discussing.

Then state which of the two solutions from the conversation you would recommend. Explain the reasons for your recommendation.

Preparation Time: 20 seconds

Response Time: 60 seconds

6. You will now listen to part of a lecture. You will then be asked a question about it. After you hear the question, give yourself 20 seconds to prepare your response. Then record yourself speaking for 60 seconds.

   Listen to Track 39. 🎧

Using points and examples from the talk, explain the two types of motivation.

Preparation Time: 20 seconds

Response Time: 60 seconds

WRITING

This section measures your ability to write in English to communicate in an academic environment.

There are two writing questions in this section.

For question 1, you will read a passage and listen to a lecture about the same topic. You may take notes while you read and listen. Then you will write a response to a question based on what you have read and heard. You may look back at the passage when answering the question. You may use your notes to help you answer the question. You have 20 minutes to plan and write your response.

For question 2, you will write an essay based on your own knowledge and experience. You have 30 minutes to plan and complete your essay.

1. **Directions:** Give yourself 3 minutes to read the passage.

Reading Time: 3 minutes

As early as the twelfth century A.D., the settlements of Chaco Canyon in New Mexico in the American Southwest were notable for their "great houses," massive stone buildings that contain hundreds of rooms and often stand three or four stories high. Archaeologists have been trying to determine how the buildings were used. While there is still no universally agreed upon explanation, there are three competing theories.

One theory holds that the Chaco structures were purely residential, with each housing hundreds of people. Supporters of this theory have interpreted Chaco great houses as earlier versions of the architecture seen in more recent Southwest societies. In particular, the Chaco houses appear strikingly similar to the large, well-known "apartment buildings" at Taos, New Mexico, in which many people have been living for centuries.

A second theory contends that the Chaco structures were used to store food supplies. One of the main crops of the Chaco people was grain maize, which could be stored for long periods of time without spoiling and could serve as a long-lasting supply of food. The supplies of maize had to be stored somewhere, and the size of the great houses would make them very suitable for the purpose.

A third theory proposes that houses were used as ceremonial centers. Close to one house, called Pueblo Alto, archaeologists identified an enormous mound formed by a pile of old material. Excavations of the mound revealed deposits containing a surprisingly large number of broken pots. This finding has been interpreted as evidence that people gathered at Pueblo Alto for special ceremonies. At the ceremonies, they ate festive meals and

then discarded the pots in which the meals had been prepared or served. Such ceremonies have been documented for other Native American cultures.

Listen to Track 40.

Directions: You have 20 minutes to plan and write your response. Your response will be judged on the basis of the quality of your writing and on how well your response presents the points in the lecture and their relationship to the reading passage. Typically, an effective response will be 150 to 225 words.

Listen to Track 41.

Response Time: 20 minutes

Summarize the points made in the lecture, being sure to explain how they cast doubt on the specific theories discussed in the reading passage.

2. **Directions:** Read the question below. You have 30 minutes to plan, write, and revise your essay. Typically, an effective response will contain a minimum of 300 words.

Response Time: 30 minutes

Do you agree or disagree with the following statement?

People today spend too much time on personal enjoyment—doing things they like to do—rather than doing things they should do.

Use specific reasons and examples to support your answer.

ANSWERS

Reading Section

1. B
2. B
3. B
4. B
5. C
6. A
7. D
8. D
9. A
10. C
11. D
12. B
13. A
14. B, D, F
15. D
16. A
17. A
18. B
19. C
20. B
21. A

22. D
23. D
24. C
25. B
26. C
27. D
28. A, E, F
29. B
30. C
31. A
32. B
33. A
34. B
35. C
36. C
37. B
38. D
39. C
40. B
41. B
42. B, D, F

Listening Section

1. C
2. A
3. B
4. A, C

5. D
6. B
7. C
8. A, D
9. B
10. D
11. A
12. B
13. D
14. B
15. C
16. A, B
17. D
18. B
19. A
20. C
21. B, D
22. B
23. B
24. C
25. D
26. A
27. D
28. C
29. C
30. D
31. B

32. A
33.

	Folktales	Fairy Tales
Their appeal is now mainly to children.		✓
The plot is the only stable element.	✓	
The tales are transmitted orally.	✓	
There is one accepted version.		✓
Characters are well developed.		✓
The language is relatively formal.		✓

34. A

Speaking Section

1. As with many of the independent items, there are many ways you could answer this question. It is important, however, to address both parts of the prompt. You should both describe a place you enjoyed and explain why you enjoyed this place.

   You might begin by specifically naming the place you enjoyed and begin to describe it. This could be a place that you visited many times, such as an aunt's house or a nearby park, or it could be a place that you visited only once, such as a particular amusement park. Try to provide specific details in

the description, such as the garden at your aunt's house. You might talk about what was growing there. Then you would need to provide reasons that explain why you enjoyed the place. In this case, you could say that you enjoyed working in your aunt's garden, or that you learned a lot about growing vegetables. The explanation is important because it helps listeners understand your general statements. It is better to provide one or two reasons and give full explanations than to provide a long list of reasons without explanation.

Your response should be intelligible, should demonstrate effective use of grammar and vocabulary, and should be well developed and coherent. Your response is scored using the Independent Speaking Rubric (see Appendix A).

2. To respond to this particular question, you should clearly state what your opinion is regarding the statement. Be sure to read the statement carefully to make sure you understand it. In this case, you would either agree or disagree that studying math or science is more important than studying art or literature. You should then give reasons to support your opinion. If you agree that math or science is more important, you might say that it is used in many important areas, such as engineering, and is necessary to make calculations when building structures, for example. You could also provide a personal example and say that you prefer math because it has helped you in certain situations, such as planning your personal finances. You may also want to make a statement about how art has not helped you as much.

   If you disagree with the statement, you would also need to support this with specific information. One possibility is to say that math and science are not actually important because not many people need to know math very well. Most people need

to know only a little math or science to do their jobs. Then you should provide an example of why art or literature is more important. There are many possibilities, and the specific example you choose is not important as long as it contributes to your argument. Your goal is for your listener to understand why you agree or disagree with the statement.

Your response should be intelligible, should demonstrate effective use of grammar and vocabulary, and should be well developed and coherent. Your response is scored using the Independent Speaking Rubric (see Appendix A).

3. First, as the question states, you should provide a brief summary of the university's plan from the reading, which is to offer meals prepared by culinary arts students at the dining hall. You can also provide a brief summary of the reason that they are doing this, which is to provide cooking students with some experience. You should not, however, spend too much time on this summary. Your summary should be clear enough for the listener to understand the plan without having access to additional information.

After the summary, you should state the man's opinion of the university's plan. In this case, the man agrees with the university's proposal.

You should then convey the two main reasons he gives for holding that opinion. You will need to connect information from the conversation to the reading in order for the response to be complete. The man says that he agrees that a dining club will be good experience for cooking students because cooking for many people under pressure is different from cooking for classmates. You should go beyond simply saying that the man agrees that it will be good experience. You need to give the explanation for why he believes that.

Your response should also convey the man's second reason for agreeing with the university's plan. The man agrees that the extra cost students will pay for these dinners will be worth it. He believes this because the culinary arts students will cook meals that are as good as those served in nice restaurants in the area.

You should manage your time so that you are able to discuss the summary and give a full description of both reasons that the man provides.

Your response should be intelligible, should demonstrate effective use of grammar and vocabulary, and should be well developed and coherent. Your response is scored using the Integrated Speaking Rubric (see Appendix A).

4. To respond to this particular question you should first explain the technique of target marketing as it was presented in the reading. Target marketing is designing or creating advertising so that it appeals to a specific group of people.

You should then use the example given by the professor to explain the technique. The professor discusses how a telephone company may produce two very different advertisements to be shown during different television programs, even though the phone is basically the same. A commercial shown during young people's programming, such as a music show, would appeal to their interests, and would show how the phone is fun. On the other hand, a commercial shown during a business program would emphasize factors important to businesspeople, such as efficiency. This example by the professor illustrates the concept of target marketing.

You do not need to repeat all of the details from the reading and the lecture, but instead integrate points from both to answer the question completely.

Your response should be intelligible, should demonstrate effective use of grammar and vocabulary, and should be well developed and coherent. Your response is scored using the Integrated Speaking Rubric (see Appendix A).

5. To respond to this particular question you should *briefly* describe the problem. It is enough to say that the woman has hurt her wrist and she's supposed to play the violin in a concert next week.

   Next, you need to choose *one* of the two solutions and explain why you think that solution is best. The two solutions in this conversation are: 1) perform with the group anyway, or 2) have Jim take her place. It does not matter which of the two proposed solutions you choose, since there is no "right" solution or "wrong" solution. You should choose the solution that you think is best and support your choice with reasons why you think it is best. The reasons you give can include information provided by the speakers as well as your own experiences.

   For example, if you believe the first solution is preferable, you could begin by saying that you think she should have the experience of playing in the big concert and that she would be disappointed if she didn't. You could also say that she will probably play fine. You could also speak about the disadvantages of the second solution; you might say that it is too much of a risk to ask Jim to replace her at such an important concert. Likewise, if you believe the second solution is preferable, you would state your preference for that and support it in a similar way, using specific reasons. Remember, this type of question can be answered in many different ways.

   Your response should be intelligible, should demonstrate effective use of grammar and vocabulary, and should be well

developed and coherent. Your response is scored using the Integrated Speaking Rubric (see Appendix A).

6. This particular question requires you to summarize the contents of a lecture you hear. In your response, you should talk about the two different kinds of motivation (which are extrinsic—or external—motivation, and intrinsic—or internal—motivation). You should include relevant points and examples from the lecture (and not from any other source).

   To begin your response, you should briefly state the main idea, that there are two types of motivation, and name the two types. You would then talk about the first type of motivation, extrinsic (or external) motivation. You would explain that when we are externally motivated, we do something for an external reward. You would then talk about the professor's example of a child doing household chores for an allowance. The money that the child receives is motivation.

   You would next talk about the second type of motivation, intrinsic (or internal) motivation. You would explain that when we are internally motivated, we do something because it makes us feel good. You should then discuss the professor's example. The professor goes to the gym several times a week because it's good for her health and she enjoys it. You could then say that she has gone for several years, which shows that intrinsic motivation is long lasting. You do not, however, need to repeat all of the details from the lecture. You need to give only sufficient details to explain the types of motivation. You should plan your time so that you have enough time to cover both types of motivation and their examples.

   Your response should be intelligible, should demonstrate effective use of grammar and vocabulary, and should be well developed and coherent. Your response is scored using the

Integrated Speaking Rubric (see Appendix A).

Writing Section

1. What is important to understand from the lecture is that the professor disagrees with each of the theories presented in the reading about the function of the massive stone buildings, or "great houses," of Chaco Canyon, namely that the great houses served a residential purpose; that they were used to store food supplies; and that they were used to hold ceremonies.

   In your response, you should convey the reasons presented by the professor for why the theories about the function of the Chaco great houses are not convincing. A high-scoring response will include the following points made by the professor that cast doubt on the points made in the reading:

Point made in the reading	Counterpoint made in the lecture
The Chaco houses may have been used for residential purposes, because they are similar to residential buildings built by other societies in the American Southwest.	It is unlikely that the Chaco houses were residential, because they contain very few fireplaces, many fewer than the families living in the houses would need for cooking.
The Chaco houses may have been used to store food. The Chaco people needed a place to store their grain maize, and the Chaco houses, thanks to their large capacity, could serve that purpose.	The theory that the function of the Chaco houses was to store grain maize is undermined by the fact that very few traces of maize or maize containers have been found during excavations of the Chaco houses.
The Chaco houses may have	The mound near the "Pueblo

served as ceremonial centers. The large quantity of broken pottery in a mound located near the “Pueblo Alto” house suggests that the houses hosted ceremonial feasts after which people discarded the pots in which the food was prepared and served.	Alto” house also contains construction materials and tools, which suggests that such mounds were just construction trash heaps and had nothing to do with ceremonies. The pots found in the mounds were probably used by construction workers building the houses.

Your response is scored using the Integrated Writing Rubric (see Appendix A). A response that receives a score of 5 clearly conveys all three of the main points in the table using accurate sentence structure and vocabulary.

2. To earn a top score, you should develop a multi-paragraph essay that responds to the issue of whether people today spend too much time on personal enjoyment—doing things they like to do—rather than doing things they should do. Typically an effective response will contain a minimum of 300 words.

One successful way to express agreement with the prompt is to argue that people these days are not spending their time on tasks that are meaningful, but instead are wasting their time on pleasurable but less meaningful activities. Defining what meaningful versus less meaningful activities are for you personally is important for this strategy; keep in mind that social networking, for example, might be a complete waste of time to you, but may be quite meaningful for others.

A successful way to disagree with the prompt is to explain that people nowadays work very hard at doing the things they should do—for example, in many places, people are spending more hours than ever at their jobs, because that is what the companies they work for say they should do—so whatever

time they devote to personal enjoyment is not "too much," but rather is exactly what's needed to maintain their health and happiness in light of all those hours spent on the job.

Keep in mind that there is no "correct" answer to this question. Either side of the issue can be supported with examples and reasons. It is important to make sure that you state your opinion and develop a response that explains your opinion well. The development of your essay is judged by how effectively you support your opinion; a well-developed essay will contain clearly appropriate reasons, examples, and details that illustrate your opinion. Development is not evaluated simply in terms of how many words you write.

Your response should be well organized. A well-organized essay allows an evaluator to read from the beginning to the end of the essay without becoming confused. You should be sure not to just repeat the same information in different ways.

The quality and accuracy of the sentence structure and vocabulary you use to express your ideas is also very important.

Your response is scored using the Independent Writing Rubric (see Appendix A).

TOEFL iBT Test 3

READING

This section measures your ability to understand academic passages in English.

There are three passages in the section. Give yourself 20 minutes to read each passage and answer the questions about it. The entire section will take 60 minutes to complete.

You may look back at a passage when answering the questions. You can skip questions and go back to them later as long as there is time remaining.

Directions: Read the passage. Then answer the questions. Give yourself 20 minutes to complete this practice set.

POWERING THE INDUSTRIAL REVOLUTION

In Britain one of the most dramatic changes of the Industrial Revolution was the harnessing of power. Until the reign of George III (1760–1820), available sources of power for work and travel had not increased since the Middle Ages. There were three sources of power: animal or human muscles; the wind, operating on sail or windmill; and running water. Only the last of these was suited at all to the continuous operating of machines, and although waterpower abounded in Lancashire and Scotland and ran grain mills as well as textile mills, it had one great disadvantage: streams flowed where nature intended them to, and water-driven factories had to be located on their banks, whether or not the location was desirable for other reasons. Furthermore, even the most reliable waterpower varied with the seasons and disappeared in a drought. The new age of machinery, in short, could not have been born without a new source of both movable and constant power.

The source had long been known but not exploited. Early in the century, a pump had come into use in which expanding steam raised a piston in a cylinder, and atmospheric pressure brought it down again when the steam condensed inside the cylinder to form a vacuum. This “atmospheric engine,” invented by Thomas Savery and vastly improved by his partner, Thomas Newcomen, embodied revolutionary principles, but it was so slow and wasteful of fuel that it could not be employed outside the coal mines for which it had been designed. In the 1760s, James Watt perfected a separate condenser for the steam, so that the cylinder did not have to be cooled at every stroke; then he devised a way to make the piston turn a wheel and thus convert reciprocating (back and forth) motion into rotary motion. He thereby transformed an inefficient pump of limited use into a steam engine of a thousand uses. The final step came when steam was introduced into

the cylinder to drive the piston backward as well as forward, thereby increasing the speed of the engine and cutting its fuel consumption.

Watt's steam engine soon showed what it could do. It liberated industry from dependence on running water. The engine eliminated water in the mines by driving efficient pumps, which made possible deeper and deeper mining. The ready availability of coal inspired William Murdoch during the 1790s to develop the first new form of nighttime illumination to be discovered in a millennium and a half. Coal gas rivaled smoky oil lamps and flickering candles, and early in the new century, well-to-do Londoners grew accustomed to gaslit houses and even streets. Iron manufacturers, which had starved for fuel while depending on charcoal, also benefited from ever-increasing supplies of coal; blast furnaces with steam-powered bellows turned out more iron and steel for the new machinery. Steam became the motive force of the Industrial Revolution, as coal and iron ore were the raw materials.

By 1800 more than a thousand steam engines were in use in the British Isles, and Britain retained a virtual monopoly on steam engine production until the 1830s. Steam power did not merely spin cotton and roll iron; early in the new century, it also multiplied ten times over the amount of paper that a single worker could produce in a day. At the same time, operators of the first printing presses run by steam rather than by hand found it possible to produce a thousand pages in an hour rather than thirty. Steam also promised to eliminate a transportation problem not fully solved by either canal boats or turnpikes. Boats could carry heavy weights, but canals could not cross hilly terrain; turnpikes could cross the hills, but the roadbeds could not stand up under great weights. These problems needed still another solution, and the ingredients for it lay close at hand. In some industrial regions, heavily laden wagons, with flanged wheels, were being hauled by horses along metal rails; and the stationary steam engine was puffing in the factory and mine. Another generation passed before inventors succeeded in combining these ingredients, by putting the engine on wheels and the wheels on the rails, so as to provide a machine to take the place of the horse. Thus the railroad age sprang

from what had already happened in the eighteenth century.

Directions: Now answer the questions.

PARAGRAPHS 1 & 2

In Britain one of the most dramatic changes of the Industrial Revolution was the harnessing of power. Until the reign of George III (1760–1820), available sources of power for work and travel had not increased since the Middle Ages. There were three sources of power: animal or human muscles; the wind, operating on sail or windmill; and running water. Only the last of these was suited at all to the continuous operating of machines, and although waterpower abounded in Lancashire and Scotland and ran grain mills as well as textile mills, it had one great disadvantage: streams flowed where nature intended them to, and water-driven factories had to be located on their banks, whether or not the location was desirable for other reasons. Furthermore, even the most reliable waterpower varied with the seasons and disappeared in a drought. The new age of machinery, in short, could not have been born without a new source of both movable and constant power.

The source had long been known but not exploited. Early in the century, a pump had come into use in which expanding steam raised a piston in a cylinder, and atmospheric pressure brought it down again when the steam condensed inside the cylinder to form a vacuum. This "atmospheric engine," invented by Thomas Savery and vastly improved by his partner, Thomas Newcomen, embodied revolutionary principles, but it was so slow and wasteful of fuel that it could not be employed outside the coal mines for which it had been designed. In the 1760s, James Watt perfected a separate condenser for the steam, so that the cylinder did not have to be cooled at every stroke; then he devised a way to make the piston turn a wheel and thus convert reciprocating (back and forth) motion into rotary motion. He thereby transformed an inefficient pump of limited use into a steam engine of a

thousand uses. The final step came when steam was introduced into the cylinder to drive the piston backward as well as forward, thereby increasing the speed of the engine and cutting its fuel consumption.

1. Which of the sentences below best expresses the essential information in the highlighted sentence in paragraph 1? Incorrect choices change the meaning in important ways or leave out essential information.

   Ⓐ Running water was the best power source for factories since it could keep machines operating continuously, but since it was abundant only in Lancashire and Scotland, most mills and factories that were located elsewhere could not be water driven.

   Ⓑ The disadvantage of using waterpower is that streams do not necessarily flow in places that are the most suitable for factories, which explains why so many water-powered grain and textile mills were located in undesirable places.

   Ⓒ Since machines could be operated continuously only where running water was abundant, grain and textile mills, as well as other factories, tended to be located only in Lancashire and Scotland.

   Ⓓ Running water was the only source of power that was suitable for the continuous operation of machines, but to make use of it, factories had to be located where the water was, regardless of whether such locations made sense otherwise.

2. It can be inferred from paragraph 1 that before the reign of George III there were no sources of power that

   Ⓐ were movable

   Ⓑ were widely available

   Ⓒ did not disappear during certain seasons of the year

   Ⓓ could provide continuous power

3. Which of the following best describes the relation of

paragraph 2 to paragraph 1?

Ⓐ Paragraph 2 shows how the problem discussed in paragraph 1 arose.

Ⓑ Paragraph 2 explains how the problem presented in paragraph 1 came to be solved.

Ⓒ Paragraph 2 provides a more technical discussion of the problem introduced in paragraph 1.

Ⓓ Paragraph 2 shows why the problem discussed in paragraph 1 was especially important to solve.

4. The word “exploited” in the passage is closest in meaning to

Ⓐ utilized

Ⓑ recognized

Ⓒ examined

Ⓓ fully understood

5. The word “vastly” in the passage is closest in meaning to

Ⓐ quickly

Ⓑ ultimately

Ⓒ greatly

Ⓓ initially

6. According to paragraph 2, the “atmospheric engine” was slow because

Ⓐ it had been designed to be used in coal mines

Ⓑ the cylinder had to cool between each stroke

Ⓒ it made use of expanding steam to raise the piston in its cylinder

Ⓓ it could be operated only when a large supply of fuel was available

7. According to paragraph 2, Watt’s steam engine differed from earlier steam engines in each of the following ways

EXCEPT:

Ⓐ It used steam to move a piston in a cylinder.

Ⓑ It worked with greater speed.

Ⓒ It was more efficient in its use of fuel.

Ⓓ It could be used in many different ways.

PARAGRAPH 3

Watt's steam engine soon showed what it could do. It liberated industry from dependence on running water. The engine eliminated water in the mines by driving efficient pumps, which made possible deeper and deeper mining. The ready availability of coal inspired William Murdoch during the 1790s to develop the first new form of nighttime illumination to be discovered in a millennium and a half. Coal gas rivaled smoky oil lamps and flickering candles, and early in the new century, well-to-do Londoners grew accustomed to gaslit houses and even streets. Iron manufacturers, which had starved for fuel while depending on charcoal, also benefited from ever-increasing supplies of coal; blast furnaces with steam-powered bellows turned out more iron and steel for the new machinery. Steam became the motive force of the Industrial Revolution, as coal and iron ore were the raw materials.

8. In paragraph 3, the author mentions William Murdoch's invention of a new form of nighttime illumination in order to

Ⓐ indicate one of the important developments made possible by the introduction of Watt's steam engine

Ⓑ make the point that Watt's steam engine was not the only invention of importance to the Industrial Revolution

Ⓒ illustrate how important coal was as a raw material for the Industrial Revolution

Ⓓ provide an example of another eighteenth-century invention that used steam as a power source

9. The phrase “grew accustomed to” in the passage is closest in meaning to

Ⓐ began to prefer

Ⓑ wanted to have

Ⓒ became used to

Ⓓ insisted on

PARAGRAPH 4

By 1800 more than a thousand steam engines were in use in the British Isles, and Britain retained a virtual monopoly on steam engine production until the 1830s. Steam power did not merely spin cotton and roll iron; early in the new century, it also multiplied ten times over the amount of paper that a single worker could produce in a day. At the same time, operators of the first printing presses run by steam rather than by hand found it possible to produce a thousand pages in an hour rather than thirty. Steam also promised to eliminate a transportation problem not fully solved by either canal boats or turnpikes. Boats could carry heavy weights, but canals could not cross hilly terrain; turnpikes could cross the hills, but the roadbeds could not stand up under great weights. These problems needed still another solution, and the ingredients for it lay close at hand. In some industrial regions, heavily laden wagons, with flanged wheels, were being hauled by horses along metal rails; and the stationary steam engine was puffing in the factory and mine. Another generation passed before inventors succeeded in combining these ingredients, by putting the engine on wheels and the wheels on the rails, so as to provide a machine to take the place of the horse. Thus the railroad age sprang from what had already happened in the eighteenth century.

10. The word “retained” in the passage is closest in meaning

to

Ⓐ gained

Ⓑ established

Ⓒ profited from

Ⓓ maintained

11. According to paragraph 4, which of the following statements about steam engines is true?

Ⓐ They were used for the production of paper but not for printing.

Ⓑ By 1800, significant numbers of them were produced outside of Britain.

Ⓒ They were used in factories before they were used to power trains.

Ⓓ They were used in the construction of canals and turnpikes.

12. According to paragraph 4, providing a machine to take the place of the horse involved combining which two previously separate ingredients?

Ⓐ Turnpikes and canals

Ⓑ Stationary steam engines and wagons with flanged wheels

Ⓒ Metal rails in roadbeds and wagons capable of carrying heavy loads

Ⓓ Canal boats and heavily laden wagons

PARAGRAPH 3

■ Watt's steam engine soon showed what it could do. ■ It liberated industry from dependence on running water. ■ The engine eliminated water in the mines by driving efficient pumps, which made possible deeper and deeper mining. ■ The ready availability of coal inspired William Murdoch during the 1790s to develop the first new form of nighttime illumination to be discovered in a millennium and a half. Coal

gas rivaled smoky oil lamps and flickering candles, and early in the new century, well-to-do Londoners grew accustomed to gaslit houses and even streets. Iron manufacturers, which had starved for fuel while depending on charcoal, also benefited from ever-increasing supplies of coal; blast furnaces with steam-powered bellows turned out more iron and steel for the new machinery. Steam became the motive force of the Industrial Revolution, as coal and iron ore were the raw materials.

13. Look at the four squares [■] that indicate where the following sentence can be added to the passage.

The factories did not have to go to the streams when power could come to the factories.

Where would the sentence best fit?

Ⓐ **The factories did not have to go to the streams when power could come to the factories.** Watt's steam engine soon showed what it could do. ■ It liberated industry from dependence on running water. ■ The engine eliminated water in the mines by driving efficient pumps, which made possible deeper and deeper mining. ■ The ready availability of coal inspired William Murdoch during the 1790s to develop the first new form of nighttime illumination to be discovered in a millennium and a half. Coal gas rivaled smoky oil lamps and flickering candles, and early in the new century, well-to-do Londoners grew accustomed to gaslit houses and even streets. Iron manufacturers, which had starved for fuel while depending on charcoal, also benefited from ever-increasing supplies of coal; blast furnaces with steam-powered bellows turned out more iron and steel for the new machinery. Steam became the motive force of the Industrial Revolution, as coal and iron ore were the raw materials.

Ⓑ ■ Watt's steam engine soon showed what it could do. **The**

factories did not have to go to the streams when power could come to the factories. It liberated industry from dependence on running water. ■ The engine eliminated water in the mines by driving efficient pumps, which made possible deeper and deeper mining. ■ The ready availability of coal inspired William Murdoch during the 1790s to develop the first new form of nighttime illumination to be discovered in a millennium and a half. Coal gas rivaled smoky oil lamps and flickering candles, and early in the new century, well-to-do Londoners grew accustomed to gaslit houses and even streets. Iron manufacturers, which had starved for fuel while depending on charcoal, also benefited from ever-increasing supplies of coal; blast furnaces with steam-powered bellows turned out more iron and steel for the new machinery. Steam became the motive force of the Industrial Revolution, as coal and iron ore were the raw materials.

Ⓒ ■ Watt's steam engine soon showed what it could do. ■ It liberated industry from dependence on running water. **The factories did not have to go to the streams when power could come to the factories.** The engine eliminated water in the mines by driving efficient pumps, which made possible deeper and deeper mining. ■ The ready availability of coal inspired William Murdoch during the 1790s to develop the first new form of nighttime illumination to be discovered in a millennium and a half. Coal gas rivaled smoky oil lamps and flickering candles, and early in the new century, well-to-do Londoners grew accustomed to gaslit houses and even streets. Iron manufacturers, which had starved for fuel while depending on charcoal, also benefited from ever-increasing supplies of coal; blast furnaces with steam-powered bellows turned out more iron and steel for the new machinery. Steam became the motive force of the Industrial Revolution, as coal and iron ore were the raw materials.

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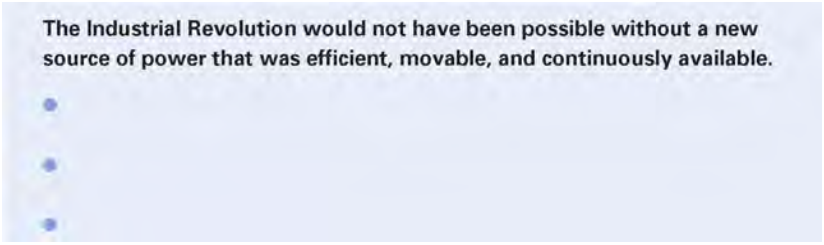
14. **Directions**: An introductory sentence for a brief summary of the passage is provided on the next page. Complete the summary by selecting the THREE answer choices that express the most important ideas in the passage. Some sentences do not belong in the summary because they express ideas that are not presented in the passage or are minor ideas in the passage.

Write your answer choices in the spaces where they belong. You can either write the letter of your answer choice or you can copy the sentence.



Answer Choices

1. A In the early eighteenth century, Savery and Newcomen discovered that expanding steam could be used to raise a piston in a cylinder.
2. B In the mid-1700s, James Watt transformed an inefficient steam pump into a fast, flexible, fuel-efficient engine.
3. C Watt's steam engine played a leading role in greatly increasing industrial production of all kinds.
4. D In the 1790s, William Murdoch developed a new way of lighting houses and streets using coal gas.
5. E Until the 1830s, Britain was the world's major producer of steam engines.
6. F The availability of steam engines was a major factor in the development of railroads, which solved a major transportation problem.

Directions: Read the passage. Then answer the questions. Give yourself 20 minutes to complete this practice set.

WILLIAM SMITH

In 1769 in a little town in Oxfordshire, England, a child with the very ordinary name of William Smith was born into the poor family of a village blacksmith. He received rudimentary village schooling, but mostly he roamed his uncle's farm collecting the fossils that were so abundant in the rocks of the Cotswold hills. When he grew older, William Smith taught himself surveying from books he bought with his small savings, and at the age of eighteen he was apprenticed to a surveyor of the local parish. He then proceeded to teach himself geology, and when he was twenty-four, he went to work for the company that was excavating the Somerset Coal Canal in the south of England.

This was before the steam locomotive, and canal building was at its height. The companies building the canals to transport coal needed surveyors to help them find the coal deposits worth mining as well as to determine the best courses for the canals. This job gave Smith an opportunity to study the fresh rock outcrops created by the newly dug canal. He later worked on similar jobs across the length and breadth of England, all the while studying the newly revealed strata and collecting all the fossils he could find. Smith used mail coaches to travel as much as 10,000 miles per year. In 1815 he published the first modern geological map, “A Map of the Strata of England and Wales with a Part of Scotland,” a map so meticulously researched that it can still be used today.

In 1831 when Smith was finally recognized by the Geological Society of London as the “father of English geology,” it was not only for his maps but also for something even more important. Ever since people had begun to catalog the strata in particular outcrops, there had been the hope that these could somehow be used to calculate geological time. But as more and more accumulations of strata were cataloged in more and more places, it became clear that the sequences of rocks sometimes differed from region to region and that no rock type was ever going to become a reliable time marker throughout the world. Even without the problem of regional differences, rocks present a difficulty as unique time markers. Quartz is quartz—a silicon ion surrounded by four oxygen ions—there’s no difference at all between two-million-year-old Pleistocene quartz and Cambrian quartz created over 500 million years ago.

As he collected fossils from strata throughout England, Smith began to see that the fossils told a different story from the rocks. Particularly in the younger strata, the rocks were often so similar that he had trouble distinguishing the strata, but he never had trouble telling the fossils apart. While rock between two consistent strata might in one place be shale and in another sandstone, the fossils in that shale or sandstone were always the same. Some fossils endured through so many millions of years that they appear in many strata, but others occur only in a few strata, and a few species had their births and

extinctions within one particular stratum. Fossils are thus identifying markers for particular periods in Earth's history.

Not only could Smith identify rock strata by the fossils they contained, he could also see a pattern emerging: certain fossils always appear in more ancient sediments, while others begin to be seen as the strata become more recent. By following the fossils, Smith was able to put all the strata of England's earth into relative temporal sequence. About the same time, Georges Cuvier made the same discovery while studying the rocks around Paris. Soon it was realized that this principal of faunal (animal) succession was valid not only in England or France but virtually everywhere. It was actually a principle of floral succession as well, because plants showed the same transformation through time as did fauna. Limestone may be found in the Cambrian or—300 million years later—in the Jurassic strata, but a trilobite—the ubiquitous marine arthropod that had its birth in the Cambrian—will never be found in Jurassic strata, nor a dinosaur in the Cambrian.

Directions: Now answer the questions.

PARAGRAPH 1

In 1769 in a little town in Oxfordshire, England, a child with the very ordinary name of William Smith was born into the poor family of a village blacksmith. He received rudimentary village schooling, but mostly he roamed his uncle's farm collecting the fossils that were so abundant in the rocks of the Cotswold hills. When he grew older, William Smith taught himself surveying from books he bought with his small savings, and at the age of eighteen he was apprenticed to a surveyor of the local parish. He then proceeded to teach himself geology, and when he was twenty-four, he went to work for the company that was excavating the Somerset Coal Canal in the south of England.

15. The word “rudimentary” in the passage is closest in meaning to

Ⓐ thorough

Ⓑ strict

Ⓒ basic

Ⓓ occasional

16. According to paragraph 1, which of the following statements about William Smith is NOT true?

Ⓐ Smith learned surveying by reading and by apprenticing for a local surveyor.

Ⓑ Smith’s family lived in a small English town and possessed little wealth.

Ⓒ Smith learned about fossils from books he borrowed from his uncle.

Ⓓ Smith eventually left his village to work on the excavation of an English canal.

PARAGRAPH 2

This was before the steam locomotive, and canal building was at its height. The companies building the canals to transport coal needed surveyors to help them find the coal deposits worth mining as well as to determine the best courses for the canals. This job gave Smith an opportunity to study the fresh rock outcrops created by the newly dug canal. He later worked on similar jobs across the length and breadth of England, all the while studying the newly revealed strata and collecting all the fossils he could find. Smith used mail coaches to travel as much as 10,000 miles per year. In 1815 he published the first modern geological map, “A Map of the Strata of England and Wales with a Part of Scotland,” a map so meticulously researched that it can still be used today.

17. Which of the following can be inferred from paragraph 2 about canal building?

Ⓐ Canals were built primarily in the south of England rather than in other regions.

Ⓑ Canal building decreased after the steam locomotive was invented.

Ⓒ Canal building made it difficult to study rock strata which often became damaged in the process.

Ⓓ Canal builders hired surveyors like Smith to examine exposed rock strata.

18. According to paragraph 2, which of the following is true of the map published by William Smith?

Ⓐ It indicates the locations of England's major canals.

Ⓑ It became most valuable when the steam locomotive made rail travel possible.

Ⓒ The data for the map were collected during Smith's work on canals.

Ⓓ It is no longer regarded as a geological masterpiece.

19. The word "meticulously" in the passage is closest in meaning to

Ⓐ carefully

Ⓑ quickly

Ⓒ frequently

Ⓓ obviously

PARAGRAPH 3

In 1831 when Smith was finally recognized by the Geological Society of London as the "father of English geology," it was not only for his maps but also for something even more important. Ever since

people had begun to catalog the strata in particular outcrops, there had been the hope that these could somehow be used to calculate geological time. But as more and more accumulations of strata were cataloged in more and more places, it became clear that the sequences of rocks sometimes differed from region to region and that no rock type was ever going to become a reliable time marker throughout the world. Even without the problem of regional differences, rocks present a difficulty as unique time markers. Quartz is quartz—a silicon ion surrounded by four oxygen ions—there's no difference at all between two-million-year-old Pleistocene quartz and Cambrian quartz created over 500 million years ago.

20. Which of the sentences below best expresses the essential information in the highlighted sentence in paragraph 3? Incorrect choices change the meaning in important ways or leave out essential information.

Ⓐ The discovery of regional differences in the sequences of rocks led geologists to believe that rock types could some day become reliable time markers.

Ⓑ Careful analysis of strata revealed that rocks cannot establish geological time because the pattern of rock layers varies from place to place.

Ⓒ Smith's catalogs of rock strata indicated that the sequences of rocks are different from place to place and from region to region.

Ⓓ Because people did not catalog regional differences in sequences of rocks, it was believed that rocks could never be reliable time markers.

21. Why does the author use the phrase "Quartz is quartz"?

Ⓐ To describe how the differences between Pleistocene and Cambrian quartz reveal information about dating rocks

Ⓑ To point out that the chemical composition of quartz makes it more difficult to date than other rocks

Ⓒ To provide an example of how regional differences in rock sequences can make a particular rock difficult to date

Ⓓ To explain that rocks are difficult to use for dating because their chemical compositions always remain the same over time

PARAGRAPH 4

As he collected fossils from strata throughout England, Smith began to see that the fossils told a different story from the rocks. Particularly in the younger strata, the rocks were often so similar that he had trouble distinguishing the strata, but he never had trouble telling the fossils apart. While rock between two consistent strata might in one place be shale and in another sandstone, the fossils in that shale or sandstone were always the same. Some fossils endured through so many millions of years that they appear in many strata, but others occur only in a few strata, and a few species had their births and extinctions within one particular stratum. Fossils are thus identifying markers for particular periods in Earth's history.

22. According to paragraph 4, it was difficult for Smith to distinguish rock strata because

Ⓐ the rocks from different strata closely resembled each other

Ⓑ he was often unable to find fossils in the younger rock strata

Ⓒ their similarity to each other made it difficult for him to distinguish one rock type from another

Ⓓ the type of rock between two consistent strata was always the same

23. The word "endured" in the passage is closest in meaning to

Ⓐ vanished

Ⓑ developed

Ⓒ varied

Ⓓ survived

PARAGRAPH 5

Not only could Smith identify rock strata by the fossils they contained, he could also see a pattern emerging: certain fossils always appear in more ancient sediments, while others begin to be seen as the strata become more recent. By following the fossils, Smith was able to put all the strata of England's earth into relative temporal sequence. About the same time, Georges Cuvier made the same discovery while studying the rocks around Paris. Soon it was realized that this principal of faunal (animal) succession was valid not only in England or France but virtually everywhere. It was actually a principle of floral succession as well, because plants showed the same transformation through time as did fauna. Limestone may be found in the Cambrian or—300 million years later—in the Jurassic strata, but a trilobite—the ubiquitous marine arthropod that had its birth in the Cambrian—will never be found in Jurassic strata, nor a dinosaur in the Cambrian.

24. The word "virtually" in the passage is closest in meaning to

Ⓐ possibly

Ⓑ absolutely

Ⓒ surprisingly

Ⓓ nearly

25. Select the TWO answer choices that are true statements based upon the discussion of the principle of faunal succession in paragraph 5. To receive credit, you must select TWO answers.

Ⓐ It was a principle that applied to fauna but not to flora.

Ⓑ It was discovered independently by two different geologists.

Ⓒ It describes how fossils are distributed in rock strata.

Ⓓ It explains why plants and animals undergo transformations through time.

26. In mentioning "trilobite," the author is making which of the following points?

Ⓐ Fossils cannot be found in more than one rock stratum.

Ⓑ Faunal succession can help put rock layers in relative temporal sequence.

Ⓒ Faunal succession cannot be applied to different strata composed of the same kind of rock.

Ⓓ The presence of trilobite fossils makes it difficult to date a rock.

PARAGRAPH 5

Not only could Smith identify rock strata by the fossils they contained, he could also see a pattern emerging: certain fossils always appear in more ancient sediments, while others begin to be seen as the strata become more recent. ■ By following the fossils, Smith was able to put all the strata of England's earth into relative temporal sequence. ■ About the same time, Georges Cuvier made the same discovery while studying the rocks around Paris. ■ Soon it was realized that this principal of faunal (animal) succession was valid not only in England or France but virtually everywhere. ■ It was actually a principle of floral succession as well, because plants showed the same transformation through time as did fauna. Limestone may be found in the Cambrian or—300 million years later—in the Jurassic strata, but a trilobite—the ubiquitous marine arthropod that had its birth in the Cambrian—will never be found in Jurassic strata, nor a dinosaur in the Cambrian.

27. Look at the four squares [■] that indicate where the following sentence can be added to the passage.

The findings of these geologists inspired others to examine the rock and fossil records in different parts of the world.

Where would the sentence best fit?

Ⓐ Not only could Smith identify rock strata by the fossils they contained, he could also see a pattern emerging: certain fossils always appear in more ancient sediments, while others begin to be seen as the strata become more recent. **The findings of these geologists inspired others to examine the rock and fossil records in different parts of the world.** By following the fossils, Smith was able to put all the strata of England's earth into relative temporal sequence. ■ About the same time, Georges Cuvier made the same discovery while studying the rocks around Paris. ■ Soon it was realized that this principal of faunal (animal) succession was valid not only in England or France but virtually everywhere. ■ It was actually a principle of floral succession as well, because plants showed the same transformation through time as did fauna. Limestone may be found in the Cambrian or—300 million years later—in the Jurassic strata, but a trilobite—the ubiquitous marine arthropod that had its birth in the Cambrian—will never be found in Jurassic strata, nor a dinosaur in the Cambrian.

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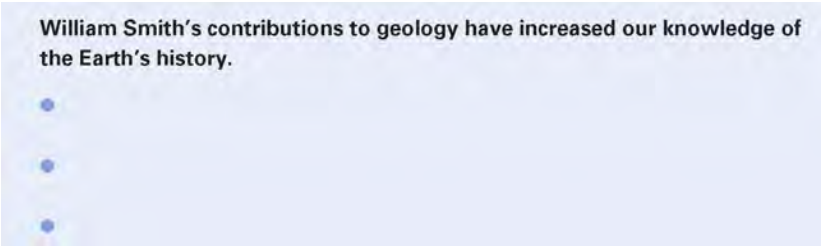
28. **Directions**: An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the THREE answer choices that express the most important ideas in the passage. Some sentences do not belong in the summary because they express ideas that are not presented in the passage or are minor ideas in the passage.

Write your answer choices in the spaces where they belong. You can either write the letter of your answer choice or you can copy the sentence.



Answer Choices

1. A Smith found success easily in his profession because he

came from a family of geologists and surveyors.

2. [B] Smith's work on canals allowed him to collect fossils and study rock layers all over England.
3. [C] Smith found that fossils are much more reliable indicators of geological time than rock strata are.
4. [D] Smith was named "the father of English geology" for his maps rather than for his other contributions to the field.
5. [E] Smith and Cuvier discovered that fossil patterns are easier to observe in ancient rock strata than in younger rock strata.
6. [F] The discovery of the principle of faunal succession allowed geologists to establish the relative age of Earth's rock layers.

Directions: Read the passage. Then answer the questions. Give yourself 20 minutes to complete this practice set.

INFANTILE AMNESIA

What do you remember about your life before you were three? Few people can remember anything that happened to them in their early years. Adults' memories of the next few years also tend to be scanty. Most people remember only a few events—usually ones that were meaningful and distinctive, such as being hospitalized or a sibling's birth.

How might this inability to recall early experiences be explained? The sheer passage of time does not account for it; adults have excellent recognition of pictures of people who attended high school with them 35 years earlier. Another seemingly plausible explanation—that infants do not form enduring memories at this point in development—also is incorrect. Children two and a half to three years old remember experiences that occurred in their first year, and eleven month olds remember some events a year later. Nor does the

hypothesis that infantile amnesia reflects repression—or holding back—of sexually charged episodes explain the phenomenon. While such repression may occur, people cannot remember ordinary events from the infant and toddler periods, either.

Three other explanations seem more promising. One involves physiological changes relevant to memory. Maturation of the frontal lobes of the brain continues throughout early childhood, and this part of the brain may be critical for remembering particular episodes in ways that can be retrieved later. Demonstrations of infants' and toddlers' long-term memory have involved their repeating motor activities that they had seen or done earlier, such as reaching in the dark for objects, putting a bottle in a doll's mouth, or pulling apart two pieces of a toy. The brain's level of physiological maturation may support these types of memories, but not ones requiring explicit verbal descriptions.

A second explanation involves the influence of the social world on children's language use. Hearing and telling stories about events may help children store information in ways that will endure into later childhood and adulthood. Through hearing stories with a clear beginning, middle, and ending, children may learn to extract the gist of events in ways that they will be able to describe many years later. Consistent with this view, parents and children increasingly engage in discussions of past events when children are about three years old. However, hearing such stories is not sufficient for younger children to form enduring memories. Telling such stories to two year olds does not seem to produce long-lasting verbalizable memories.

A third likely explanation for infantile amnesia involves incompatibilities between the ways in which infants encode[1] information and the ways in which older children and adults retrieve it. Whether people can remember an event depends critically on the fit between the way in which they earlier encoded the information and the way in which they later attempt to retrieve it. The better able the person is to reconstruct the perspective from which the material was encoded, the more likely that recall will be successful.

This view is supported by a variety of factors that can create mismatches between very young children's encoding and older children's and adults' retrieval efforts. The world looks very different to a person whose head is only two or three feet above the ground than to one whose head is five or six feet above it. Older children and adults often try to retrieve the names of things they saw, but infants would not have encoded the information verbally. General knowledge of categories of events such as a birthday party or a visit to the doctor's office helps older individuals encode their experiences, but again, infants and toddlers are unlikely to encode many experiences within such knowledge structures.

These three explanations of infantile amnesia are not mutually exclusive; indeed, they support each other. Physiological immaturity may be part of why infants and toddlers do not form extremely enduring memories, even when they hear stories that promote such remembering in preschoolers. Hearing the stories may lead preschoolers to encode aspects of events that allow them to form memories they can access as adults. Conversely, improved encoding of what they hear may help them better understand and remember stories and thus make the stories more useful for remembering future events. Thus, all three explanations—physiological maturation, hearing and producing stories about past events, and improved encoding of key aspects of events—seem likely to be involved in overcoming infantile amnesia.

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1. **encode:** transfer information from one system of communication into another

Directions: Now answer the questions.

PARAGRAPH 2

How might this inability to recall early experiences be explained? The sheer passage of time does not account for it; adults have excellent recognition of pictures of people who attended high school

with them 35 years earlier. Another seemingly plausible explanation—that infants do not form enduring memories at this point in development—also is incorrect. Children two and a half to three years old remember experiences that occurred in their first year, and eleven month olds remember some events a year later. Nor does the hypothesis that infantile amnesia reflects repression—or holding back—of sexually charged episodes explain the phenomenon. While such repression may occur, people cannot remember ordinary events from the infant and toddler periods, either.

29. What purpose does paragraph 2 serve in the larger discussion of children's inability to recall early experiences?

Ⓐ To argue that theories that are not substantiated by evidence should generally be considered unreliable

Ⓑ To argue that the hypotheses mentioned in paragraph 2 have been more thoroughly researched than have the theories mentioned later in the passage

Ⓒ To explain why some theories about infantile amnesia are wrong before presenting ones more likely to be true

Ⓓ To explain why infantile amnesia is of great interest to researchers

30. The "plausible" in the passage is closest in meaning to

Ⓐ flexible

Ⓑ believable

Ⓒ debatable

Ⓓ predictable

31. The word "phenomenon" in the passage is closest in meaning to

Ⓐ exception

Ⓑ repetition

Ⓒ occurrence

Ⓓ idea

32. All of the following theories about the inability to recall early experiences are rejected in paragraph 2 EXCEPT:

Ⓐ The ability to recall an event decreases as the time after the event increases.

Ⓑ Young children are not capable of forming memories that last for more than a short time.

Ⓒ People may hold back sexually meaningful memories.

Ⓓ Most events in childhood are too ordinary to be worth remembering.

PARAGRAPH 3

Three other explanations seem more promising. One involves physiological changes relevant to memory. Maturation of the frontal lobes of the brain continues throughout early childhood, and this part of the brain may be critical for remembering particular episodes in ways that can be retrieved later. Demonstrations of infants' and toddlers' long-term memory have involved their repeating motor activities that they had seen or done earlier, such as reaching in the dark for objects, putting a bottle in a doll's mouth, or pulling apart two pieces of a toy. The brain's level of physiological maturation may support these types of memories, but not ones requiring explicit verbal descriptions.

33. What does paragraph 3 suggest about long-term memory in children?

Ⓐ Maturation of the frontal lobes of the brain is important for the long-term memory of motor activities but not verbal descriptions.

Ⓑ Young children may form long-term memories of actions they see earlier than of things they hear or are told.

Ⓒ Young children have better long-term recall of short verbal exchanges than of long ones.

Ⓓ Children's long-term recall of motor activities increases when such activities are accompanied by explicit verbal descriptions.

PARAGRAPH 4

A second explanation involves the influence of the social world on children's language use. Hearing and telling stories about events may help children store information in ways that will endure into later childhood and adulthood. Through hearing stories with a clear beginning, middle, and ending, children may learn to extract the gist of events in ways that they will be able to describe many years later. Consistent with this view, parents and children increasingly engage in discussions of past events when children are about three years old. However, hearing such stories is not sufficient for younger children to form enduring memories. Telling such stories to two year olds does not seem to produce long-lasting verbalizable memories.

34. According to paragraph 4, what role may storytelling play in forming childhood memories?

Ⓐ It may encourage the physiological maturing of the brain.

Ⓑ It may help preschool children tell the difference between ordinary and unusual memories.

Ⓒ It may help preschool children retrieve memories quickly.

Ⓓ It may provide an ordered structure that facilitates memory retrieval.

PARAGRAPHS 5 & 6

A third likely explanation for infantile amnesia involves

incompatibilities between the ways in which infants encode[1] information and the ways in which older children and adults retrieve it. Whether people can remember an event depends critically on the fit between the way in which they earlier encoded the information and the way in which they later attempt to retrieve it. The better able the person is to reconstruct the perspective from which the material was encoded, the more likely that recall will be successful.

This view is supported by a variety of factors that can create mismatches between very young children's encoding and older children's and adults' retrieval efforts. The world looks very different to a person whose head is only two or three feet above the ground than to one whose head is five or six feet above it. Older children and adults often try to retrieve the names of things they saw, but infants would not have encoded the information verbally. General knowledge of categories of events such as a birthday party or a visit to the doctor's office helps older individuals encode their experiences, but again, infants and toddlers are unlikely to encode many experiences within such knowledge structures.

35. The word "critically" in the passage is closest in meaning to

Ⓐ fundamentally

Ⓑ partially

Ⓒ consistently

Ⓓ subsequently

36. The word "perspective" in the passage is closest in meaning to

Ⓐ system

Ⓑ theory

Ⓒ source

Ⓓ viewpoint

37. The phrase "This view" in the passage refers to the belief that

Ⓐ the ability to retrieve a memory partly depends on the similarity between the encoding and retrieving process

Ⓑ the process of encoding information is less complex for adults than it is for young adults and infants

Ⓒ infants and older children are equally dependent on discussion of past events for the retrieval of information

Ⓓ infants encode information in the same way older children and adults do

38. According to paragraphs 5 and 6, one disadvantage very young children face in processing information is that they cannot

Ⓐ process a lot of information at one time

Ⓑ organize experiences according to type

Ⓒ block out interruptions

Ⓓ interpret the tone of adult language

PARAGRAPH 7

These three explanations of infantile amnesia are not mutually exclusive; indeed, they support each other. Physiological immaturity may be part of why infants and toddlers do not form extremely enduring memories, even when they hear stories that promote such remembering in preschoolers. Hearing the stories may lead preschoolers to encode aspects of events that allow them to form memories they can access as adults. Conversely, improved encoding of what they hear may help them better understand and remember stories and thus make the stories more useful for remembering future events. Thus, all three explanations—physiological maturation, hearing and producing stories about past events, and improved encoding of key aspects of events—seem likely to be involved in overcoming infantile amnesia.

39. Which of the sentences below best expresses the essential information in the highlighted sentence in paragraph 7? Incorrect choices change the meaning in important ways or leave out essential information.

Ⓐ Incomplete physiological development may partly explain why hearing stories does not improve long-term memory in infants and toddlers.

Ⓑ One reason why preschoolers fail to comprehend the stories they hear is that they are physiologically immature.

Ⓒ Given the chance to hear stories, infants and toddlers may form enduring memories despite physiological immaturity.

Ⓓ Physiologically mature children seem to have no difficulty remembering stories they heard as preschoolers.

40. How does paragraph 7 relate to the earlier discussion of infantile amnesia?

Ⓐ It introduces a new theory about the causes of infantile amnesia.

Ⓑ It argues that particular theories discussed earlier in the passage require further research.

Ⓒ It explains how particular theories discussed earlier in the passage may work in combination.

Ⓓ It evaluates which of the theories discussed earlier is most likely to be true.

PARAGRAPH 1

What do you remember about your life before you were three? ■ Few people can remember anything that happened to them in their early years. ■ Adults' memories of the next few years also tend to be scanty. ■ Most people remember only a few events—usually ones that were meaningful and distinctive, such as being hospitalized or a

sibling's birth. ■

11. Look at the four squares [■] that indicate where the following sentence can be added to the passage.

Other important occasions are school graduations and weddings.

Where would the sentence best fit?

Ⓐ What do you remember about your life before you were three? **Other important occasions are school graduations and weddings.** Few people can remember anything that happened to them in their early years. ■ Adults' memories of the next few years also tend to be scanty. ■ Most people remember only a few events—usually ones that were meaningful and distinctive, such as being hospitalized or a sibling's birth. ■

Ⓑ What do you remember about your life before you were three? ■ Few people can remember anything that happened to them in their early years. **Other important occasions are school graduations and weddings.** Adults' memories of the next few years also tend to be scanty. ■ Most people remember only a few events—usually ones that were meaningful and distinctive, such as being hospitalized or a sibling's birth. ■

Ⓒ What do you remember about your life before you were three? ■ Few people can remember anything that happened to them in their early years. ■ Adults' memories of the next few years also tend to be scanty. **Other important occasions are school graduations and weddings.** Most people remember only a few events—usually ones that were meaningful and distinctive, such as being hospitalized or a sibling's birth. ■

Ⓓ What do you remember about your life before you were three?

■ Few people can remember anything that happened to them in their early years. ■ Adults' memories of the next few years also tend to be scanty. ■ Most people remember only a few events—usually ones that were meaningful and distinctive, such as being hospitalized or a sibling's birth. **Other important occasions are school graduations and weddings.**

12. **Directions:** An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the THREE answer choices that express the most important ideas in the passage. Some sentences do not belong in the summary because they express ideas that are not presented in the passage or are minor ideas in the passage.

    Write your answer choices in the spaces where they belong. You can either write the letter of your answer choice or you can copy the sentence.

Answer Choices

1. A Preschoolers typically do not recall events from their first year.
2. B Frontal lobe function of the brain may need to develop before memory retrieval can occur.
3. C Children recall physical activities more easily if they are verbalized.

4. D The opportunity to hear chronologically narrated stories may help three-year-old children produce long-lasting memories.
5. E The content of a memory determines the way in which it is encoded.
6. F The contrasting ways in which young children and adults process information may determine their relative success in remembering.

LISTENING

This section measures your ability to understand conversations and lectures in English.

Listen to each conversation and lecture only one time. After each conversation and lecture, you will answer some questions about it. Answer each question based on what is stated or implied by the speakers.

You may take notes while you listen and use your notes to help you answer the questions. Your notes will **not** be scored.

In some questions, you will see this icon: . This means that you will hear, but not see, the question.

Answer each question before moving on. Do not return to previous questions.

It will take about 60 minutes to listen to the conversations and lectures and answer the questions about them.

Directions: Listen to Track 42. 🎧

Directions: Now answer the questions.

1. Why does the student go to the career services office?
   - Ⓐ To confirm the date and time of the career fair
   - Ⓑ To learn the location of the career fair
   - Ⓒ To find out if he is allowed to attend the career fair
   - Ⓓ To get advice about interviewing at the career fair
2. Why does the student think that companies' representatives would not be interested in talking to him?
   - Ⓐ He will not be graduating this year.
   - Ⓑ He is not currently taking business classes.
   - Ⓒ He has not declared a major yet.
   - Ⓓ He does not have a current résumé.
3. What does the woman imply about the small print on the

career fair posters and flyers?

Ⓐ The information in the small print was incomplete.

Ⓑ The print was smaller than she expected it to be.

Ⓒ The information the small print contains will be updated.

Ⓓ The information in the small print will be presented in a more noticeable way.

4. What does the woman say is a good way for the student to prepare for speaking to companies' representatives? *Choose 2 answers.*

[A] Take some business classes

[B] Familiarize himself with certain businesses beforehand

[C] Have questions ready to ask the representatives

[D] Talk to people who work for accounting firms

5. Listen to Track 43. 🎧

Ⓐ To acknowledge that he cannot go to this year's career fair

Ⓑ To acknowledge the amount of preparation he will have

Ⓒ To indicate that he has school work he must complete before the career fair

Ⓓ To indicate that he needs to go to his job now

Directions: Listen to Track 44. 🎧

Economics

Directions: Now answer the questions.

6. What is the main purpose of the talk?
   - Ⓐ To show what happens after an economy has experienced a boom-and-bust cycle
   - Ⓑ To illustrate the conditions needed to produce a boom-and-bust cycle
   - Ⓒ To demonstrate how boom-and-bust cycles have changed over time
   - Ⓓ To explain why the boom-and-bust cycle is not a frequent historical occurrence
7. What is the professor's opinion about the dot-com crash?
   - Ⓐ She thinks that people should have realized it would happen.
   - Ⓑ She does not believe that anything like it will happen again.
   - Ⓒ She is surprised that it did not have more serious consequences.
   - Ⓓ She is confident that people learned a valuable lesson from it.
8. According to the professor, where did tulips originate?

Ⓐ In the mountains of central Asia

Ⓑ In the region around Istanbul in Turkey

Ⓒ In the sandy soils of the Netherlands

Ⓓ In the forests of northern Europe

9. Why does the professor mention a merchant who ate tulip bulbs?

Ⓐ To explain how the Turks introduced the flower to European visitors

Ⓑ To explain what happened to tulip bulbs that did not produce desirable colors

Ⓒ To give an example of one way that the rich in the Netherlands showed off their wealth

Ⓓ To illustrate her point that Europeans were unfamiliar with the flower

10. What were some of the factors that contributed to the tulip craze in the Netherlands in the seventeenth century? *Choose 3 answers.*

[A] Wealthy gardeners liked to compete for rare plants.

[B] The number of people with disposable income was growing.

[C] Tulip bulbs were initially cheap and easy to obtain.

[D] Tulips in the wild bloomed in unusual color combinations.

[E] The tulip market was not regulated by the government.

11. The professor mentions the practice of trading promissory notes in the Netherlands in the 1630s. What does this practice explain? *Choose 2 answers.*

[A] Why tulips replaced gold as a form of currency

[B] Why buyers were no longer interested in owning actual tulips

[C] Why borrowing in the Netherlands increased on a significant scale

[D] Why the middle class in the Netherlands expanded in size

Directions: Listen to Track 45. 🎧

Biology

Nightcap Oak

Directions: Now answer the questions.

12. What topics related to the Nightcap Oak does the professor mainly discuss? *Choose 2 answers.*

[A] Factors that relate to the size of the area in which it grows

[B] The size of its population over the last few centuries

[C] Whether anything can be done to ensure its survival

[D] Why it did not change much over the last one hundred million years

13. According to the professor, what led scientists to characterize the Nightcap Oak as primitive?

Ⓐ It has no evolutionary connection to other trees growing in Australia today.

Ⓑ It has an inefficient reproductive system.

Ⓒ Its flowers are located at the bases of the leaves.

Ⓓ It is similar to some ancient fossils.

14. What point does the professor make about the Nightcap

Oak's habitat?

Ⓐ It is stable despite its limited size.

Ⓑ Unlike the habitats of many plants, it is expanding.

Ⓒ Its recent changes have left the Nightcap Oak struggling to adapt.

Ⓓ Its size is much larger than the area where the Nightcap Oak grows.

15. According to the professor, what are two factors that prevent the Nightcap Oak population from spreading? *Choose 2 answers.*

[A] The complex conditions required for the trees to produce fruit

[B] The fact that the seed cannot germinate while locked inside the shell

[C] The limited time the seed retains the ability to germinate

[D] Competition with tree species that evolved more recently

16. Why does the professor mention the size of the Nightcap Oak population over the last few hundred years?

Ⓐ To explain why it is likely that the Nightcap Oak population will increase in the future

Ⓑ To point out that the Nightcap Oak's limited reproductive success has not led to a decrease in its population

Ⓒ To present evidence that the Nightcap Oak is able to tolerate major changes in its environment

Ⓓ To point out that the Nightcap Oak is able to resist diseases that have destroyed other tree species

17. Listen to Track 46. 🎧

Ⓐ She wants the students to think about a possible connection.

Ⓑ She wants to know if the students have any questions.

Ⓒ She is implying that researchers have been asking the wrong questions.

Ⓓ She is implying that there may be no connection between the questions.

Directions: Listen to Track 47. 🎧

Directions: Now answer the questions.

18. Why does the student go to see the professor?

Ⓐ She is having trouble finding a topic for her term paper.

Ⓑ She needs his help to find resource materials.

Ⓒ She wants to ask him for an extension on a term paper.

Ⓓ She wants him to approve her plans for a term paper.

19. Why is the student interested in learning more about dialects?

Ⓐ She often has trouble understanding what other students are saying.

Ⓑ She is trying to change the way she speaks.

Ⓒ She is aware that her own dialect differs from those of her roommates.

Ⓓ She spent her childhood in various places where different dialects are spoken.

20. Based on the conversation, what can be concluded about "dialect accommodation"? *Choose 2 answers.*

A It is a largely subconscious process.

B It is a process that applies only to some dialects.

C It is a very common phenomenon.

D It is a topic that has not been explored extensively.

21. What does the professor want the student to do next?

Ⓐ Read some articles he has recommended

Ⓑ Present her proposal before the entire class

Ⓒ Submit a design plan for the project

Ⓓ Listen to recordings of different dialects

22. Listen to Track 48. 🎧

Ⓐ He thinks the topic goes beyond his expertise.

Ⓑ He thinks the topic is too broad for the student to manage.

Ⓒ He thinks the topic is not relevant for a linguistics class.

Ⓓ He thinks other students may have chosen the same topic.

Directions: Listen to Track 49. 🎧

Directions: Now answer the questions.

23. What aspect of creative writing does the professor mainly discuss?

Ⓐ How to keep a reader's interest

Ⓑ How to create believable characters

Ⓒ Key differences between major and minor characters

Ⓓ Techniques for developing short-story plots

24. Why does the professor recommend that students pay attention to the people they see every day?

Ⓐ The behavior and characteristics of these people can be used in character sketches.

Ⓑ Observing people in real-life situations can provide ideas for story plots.

Ⓒ It is easier to observe the behavior of familiar people than of new people.

Ⓓ Students can gather accurate physical descriptions for their characters.

25. The professor discusses an example of three friends who run out of gas. What point does he use the example to illustrate?

Ⓐ Writers should know their characters as well as they know their friends.

Ⓑ Writers should create characters that interact in complex ways.

Ⓒ Friends do not always behave the way we expect them to behave.

Ⓓ Friends' behavior is often more predictable than fictional characters' behavior.

26. What warning does the professor give when he talks about the man who lives on the mountain?

Ⓐ Avoid placing characters in remote settings

Ⓑ Avoid having more than one major character

Ⓒ Avoid using people as models whose lives are unusual

Ⓓ Avoid making characters into stereotypes

27. What does the professor imply is the importance of flat

characters?

Ⓐ They act more predictably than other characters.

Ⓑ They are difficult for readers to understand.

Ⓒ They help reveal the main character's personality.

Ⓓ They are the only characters able to experience defeat.

28. Listen to Track 50. 🎧

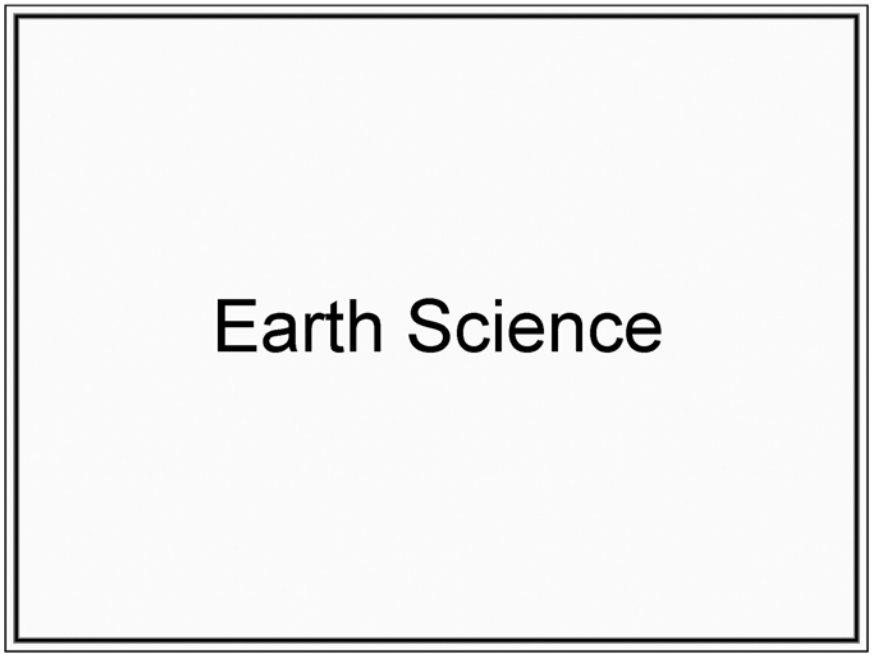
Ⓐ To indicate that he is about to explain what type of drawing he wants

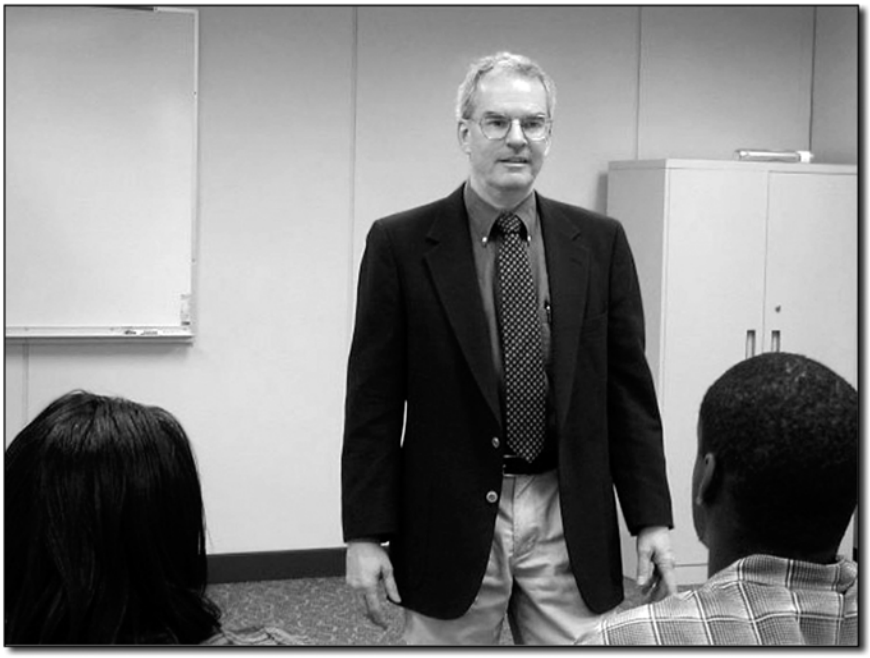
Ⓑ To help students understand a term that may be confusing

Ⓒ To indicate that he used the wrong word earlier

Ⓓ To motivate the students to do better work

Directions: Listen to Track 51. 🎧





Sahara Desert

Directions: Now answer the questions.

29. What is the lecture mainly about?

Ⓐ An example of rapid climate change

Ⓑ A comparison of two mechanisms of climate change

Ⓒ The weather conditions in the present-day Sahara

Ⓓ Recent geological findings made in the Sahara

30. Not long ago, the Sahara had a different climate. What evidence does the professor mention to support this? *Choose 3 answers.*

[A] Ancient pollen

[B] Bones from large animals

[C] Rock paintings

[D] Agriculture in ancient Egypt

[E] Underground water

31. In the lecture, what do the Ice Age and the creation of the Sahara Desert both illustrate about past climate

changes? *Choose 2 answers.*

A That some climate changes benefitted the development of civilization

B That some climate changes were not caused by human activity

C That some climate changes were caused by a decrease of moisture in the atmosphere

D That some climate changes were caused by changes in Earth's motion and position

32. What started the runaway effect that led to the Sahara area of North Africa becoming a desert?

Ⓐ The prevailing winds became stronger.

Ⓑ The seasonal rains moved to a different area.

Ⓒ The vegetation started to die off in large areas.

Ⓓ The soil lost its ability to retain rainwater.

33. The professor mentions a theory that people migrating from the Sahara were important to the development of the Egyptian civilization. Which sentence best describes the professor's attitude toward this theory?

Ⓐ It is exciting because it perfectly explains recent archaeological discoveries.

Ⓑ It is problematic because it goes too far beyond the generally available data.

Ⓒ It raises an interesting possibility and he hopes to see more evidence for it.

Ⓓ It cannot be taken seriously until it explains how the migrants got to Egypt.

34. Listen to Track 52. 🎧

Ⓐ To correct a misstatement he made about the Sahara's climate

Ⓑ To suggest that the current dryness of the Sahara is exaggerated

Ⓒ To indicate that scientists are not in agreement about the Sahara's past climate

Ⓓ To emphasize the difference between the current and past climates of the Sahara

SPEAKING

This section measures your ability to speak in English about a variety of topics.

There are six questions in this section. For each question, you will be given a short time to prepare your response. When the preparation time is up, answer the question as completely as possible in the time indicated for that question. You should record your responses so that you can review them later and compare them with the answer key and scoring rubrics.

1. You will now be asked to speak about a familiar topic. Give yourself 15 seconds to prepare your response. Then record yourself speaking for 45 seconds.

   Listen to Track 53. 🎧

   Talk about a photograph or painting you have seen that was memorable. Explain what you liked or disliked about it.

   Preparation Time: 15 seconds

   Response Time: 45 seconds

2. You will now be asked to give your opinion about a familiar topic. Give yourself 15 seconds to prepare your response. Then record yourself speaking for 45 seconds.

   Listen to Track 54. 🎧

   Some people have one career throughout their lives. Other people do different kinds of work at different points in their lives. Which do you think is better? Explain why.

   Preparation Time: 15 seconds

   Response Time: 45

seconds

3. You will now read a short passage and listen to a conversation on the same topic. You will then be asked a question about them. After you hear the question, give yourself 30 seconds to prepare your response. Then record yourself speaking for 60 seconds.

Listen to Track 55. 🎧

Reading Time: 50 seconds

History Seminars Should Be Shorter

Currently, all of the seminar classes in the history department are three hours long. I would like to propose that history seminars be shortened to two hours. I make this proposal for two reasons. First, most students just cannot concentrate for three hours straight. I myself have taken these three-hour seminars and found them tiring and sometimes boring. Also, when a seminar lasts that long, people stop concentrating and stop learning, so the third hour of a three-hour seminar is a waste of everyone's time. Two-hour seminars would be much more efficient.

Sincerely,

Tim Lawson

Listen to Track 56. 🎧

The woman expresses her opinion about the proposal described in the letter. Briefly summarize the proposal. Then state her opinion about the proposal and explain the reasons she gives for holding that opinion.

Preparation Time: 30 seconds

Response Time: 60 seconds

4. You will now read a short passage and listen to a lecture on the same topic. You will then be asked a question about them. After you hear the question, give yourself 30 seconds to prepare your response. Then record yourself speaking for 60 seconds.

Listen to Track 57. 🎧

Reading Time: 45 seconds

Explicit Memories and Implicit Memories

In everyday life, when people speak of memory, they are almost always speaking about what psychologists would call explicit memories. An explicit memory is a conscious or intentional recollection, usually of facts, names, events, or other things that a person can state or declare. There is another kind of memory that is not conscious. Memories of this kind are called implicit memories. An individual can have an experience that he or she cannot consciously recall yet still display reactions that indicate the experience has been somehow recorded in his or her brain.

Listen to Track 58. 🎧

Using the example of the car advertisement, explain what is meant by implicit memory.

Preparation Time: 30 seconds

Response Time: 60 seconds

5. You will now listen to part of a conversation. You will then be asked a question about it. After you hear the question, give yourself 20 seconds to prepare your response. Then record yourself speaking for 60 seconds.

   Listen to Track 59. 🎧

Briefly summarize the problem the speakers are discussing.

Then state which of the two solutions from the conversation you would recommend. Explain the reasons for your recommendation.

Preparation Time: 20 seconds

Response Time: 60 seconds

6. You will now listen to part of a lecture. You will then be asked a question about it. After you hear the question, give yourself 20 seconds to prepare your response. Then record yourself speaking for 60 seconds.

   Listen to Track 60. 🎧

Using points and examples from the talk, explain the difference between active and passive attention.

Preparation Time: 20 seconds

Response Time: 60 seconds

WRITING

This section measures your ability to write in English to communicate in an academic environment.

There are two writing questions in this section.

For question 1, you will read a passage and listen to a lecture about the same topic. You may take notes while you read and listen. Then you will write a response to a question based on what you have read and heard. You may look back at the passage when answering the question. You may use your notes to help you answer the question. You have 20 minutes to plan and write your response.

For question 2, you will write an essay based on your own knowledge and experience. You have 30 minutes to plan and complete your essay.

1. **Directions:** Give yourself 3 minutes to read the passage.

Reading Time: 3 minutes

Communal online encyclopedias represent one of the latest resources to be found on the Internet. They are in many respects like traditional printed encyclopedias: collections of articles on various subjects. What is specific to these online encyclopedias, however, is that any Internet user can contribute a new article or make an editorial change in an existing one. As a result, the encyclopedia is authored by the whole community of Internet users. The idea might sound attractive, but the communal online encyclopedias have several important problems that make them much less valuable than traditional, printed encyclopedias.

First, contributors to a communal online encyclopedia often lack academic credentials, thereby making their contributions partially informed at best and downright inaccurate in many cases. Traditional encyclopedias are written by trained experts who adhere to standards of academic rigor that nonspecialists cannot really achieve.

Second, even if the original entry in the online encyclopedia is correct, the communal nature of these online encyclopedias gives unscrupulous users and vandals or hackers the opportunity to fabricate, delete, and corrupt information in the encyclopedia. Once changes have been made to the original text, an unsuspecting user cannot tell the entry has been tampered with. None of this is possible with a traditional encyclopedia.

Third, the communal encyclopedias focus too frequently, and in too great a depth, on trivial and popular topics, which creates a false impression of what is important and what is not. A child doing research for a school project may discover that a major historical

event receives as much attention in an online encyclopedia as, say, a single long-running television program. The traditional encyclopedia provides a considered view of what topics to include or exclude and contains a sense of proportion that online "democratic" communal encyclopedias do not.

Listen to Track 61. 🎧

Directions: You have 20 minutes to plan and write your response. Your response will be judged on the basis of the quality of your writing and on how well your response presents the points in the lecture and their relationship to the reading passage. Typically, an effective response will be 150 to 225 words.

Listen to Track 62. 🎧

Response Time: 20 minutes

Summarize the points made in the lecture, being sure to explain how

they oppose the specific points made in the reading passage.

2. **Directions:** Read the question below. You have 30 minutes to plan, write, and revise your essay. Typically, an effective response will contain a minimum of 300 words.

Response Time: 30 minutes

Do you agree or disagree with the following statement?

Life today is easier and more comfortable than it was when your grandparents were children.

Use specific reasons and examples to support your answer.

ANSWERS

Reading Section

1. D
2. D
3. B
4. A
5. C
6. B
7. A
8. A
9. C
10. D
11. C
12. B
13. C
14. B, C, F
15. C
16. C
17. B
18. C
19. A
20. B
21. D

22. A
23. D
24. D
25. B, C
26. B
27. C
28. B, C, F
29. C
30. B
31. C
32. D
33. B
34. D
35. A
36. D
37. A
38. B
39. A
40. C
41. D
42. B, D, F

Listening Section

1. C
2. A
3. D
4. B, C

5. B
6. B
7. A
8. A
9. D
10. A, B, E
11. B, C
12. A, B
13. D
14. D
15. B, C
16. B
17. A
18. D
19. C
20. A, C
21. C
22. B
23. B
24. A
25. A
26. D
27. C
28. B
29. A
30. A, C, E
31. B, D

32. B
33. C
34. D

Speaking Section

1. There are many ways you could answer this particular question. You could talk about a particular artist's painting or photograph, a family photograph, or even a friend's painting. You might start by giving a brief description of the photograph or painting and talk briefly about its subject matter or important features. You then will need to give at least one well-developed reason why you like or dislike the photograph or painting. You do not want to spend too much time describing the photograph and run out of time to explain why you like it.

   Your response should be intelligible, should demonstrate effective use of grammar and vocabulary, and should be well developed and coherent. Your response is scored using the Independent Speaking Rubric (see Appendix A).

2. To respond to this particular question, you should clearly state what your opinion is: do you think it is better to have one career or do different kinds of work? You should then give reasons to support your opinion. If you think that it is better to have one career, you could say that if you have a career that you love, there is no reason to change. Many people enjoy doing one thing that they are very good at. You may then talk about other advantages, such as money or the possibility to advance over time. You may give a more specific example to help you explain. For example, you could say that a doctor has gone to school for a long time and it takes a long time to learn

to be a good doctor, so in this case changing careers would not make sense.

If you think it is better to do different kinds of work, you would develop your opinion in a similar way. You could say that doing one job for your whole life would not be interesting, and that as technology progresses, many new fields to work in become available. You might then provide specific information about new fields, such as those connected to new computer technology.

It is important to understand that that there is no "correct" answer to this question. Whichever option you prefer, your answer should be supported with examples. It is important to make sure that you state your opinion and develop your response with good examples and relevant details.

Your response should be intelligible, should demonstrate effective use of grammar and vocabulary, and should be well developed and coherent. Your response is scored using the Independent Speaking Rubric (see Appendix A).

3. To respond to this particular question, you should state the woman's opinion of the letter writer's proposal to shorten history seminars to two hours. In this case, the woman disagrees with the letter writer's proposal.

After stating that the woman disagrees with the proposal, you should convey the two main reasons she gives for holding that opinion. You will need to connect information from the conversation to the reading in order for the response to be complete. The woman says that the first reason given for shortening history seminars—that students cannot concentrate for three hours—isn't valid. She says that Tim, the letter writer, is not a typical student and that he stays up late at night, and sometimes even sleeps in class.

Your response should also convey the woman's second reason for not agreeing with the letter writer's proposal. The letter writer thinks that the third hour of the seminar is a waste of time because people don't learn anything. The woman thinks, however, that the last hour is when the discussions are the most interesting and that it is the most important part of the seminar.

Your response should be intelligible, should demonstrate effective use of grammar and vocabulary, and should be well developed and coherent. Your response is scored using the Integrated Speaking Rubric (see Appendix A).

4. To respond to this particular question you should first explain the idea of implicit memory as it was presented in the reading. An implicit memory is not conscious and cannot be recalled, but it is recorded in our brains. You may choose to contrast this with explicit memory, which is consciously recalled, but do not spend too much time at this stage. You must give yourself enough time to discuss the professor's example.

You should then use the example given by the professor to explain implicit memory. In the example, implicit memory is demonstrated when a person drives by a billboard and sees an advertisement for a car called "Panther" but has no recollection of the billboard. Then later, the same person recalls the word "Panther" when asked to name an animal that starts with the letter "P," even though "pig" is a more common animal that begins with "p." This shows that the billboard has had an effect on the person's memory; this is an illustration of implicit memory.

You do not need to repeat all of the details from the reading and the lecture, but instead integrate points from both

to answer the question completely.

Your response should be intelligible, should demonstrate effective use of grammar and vocabulary, and should be well developed and coherent. Your response is scored using the Integrated Speaking Rubric (see Appendix A).

5. To respond to this particular question you should *briefly* describe the problem. It is enough to say that the study group hasn't been studying much because they have become friends and joke around a lot.

Next, you need to choose *one* of the two solutions and explain why you think that solution is best. The two solutions in this conversation are: (1) meet on a day other than Fridays, or (2) have somebody be the leader, who would set an agenda and make sure work gets done. It does not matter which of the two proposed solutions you choose, since there is no "right" solution or "wrong" solution. You should choose the solution that you think is best and support your choice with reasons why you think it is best. The reasons you give can include information provided by the speakers as well as your own experiences.

For example, if you believe the first solution is preferable, you could speak about the disadvantages of the second solution; you might say that having a leader would change the way the group works, and that some people might not agree with this idea. Adding a leader could create more problems than it solves, and it might be too much responsibility for the student. Therefore, changing the day of the meetings is the better solution. If you believe the second solution is preferable, you might say that organization is what the group needs, and that the woman would get good experience from being leader of the group. These are just examples of possible responses;

remember, this type of question can be answered in many different ways.

Your response should be intelligible, should demonstrate effective use of grammar and vocabulary, and should be well developed and coherent. Your response is scored using the Integrated Speaking Rubric (see Appendix A).

6. This particular question requires you to summarize the contents of a lecture you hear. In your response, you should talk about the two different kinds of attention that the professor describes.

The order in which you discuss the two types of attention is not important as long as you discuss both types fully and make clear what is different about them. The professor says that active attention is voluntary; it occurs when people force themselves to pay attention to something. A boring lecture about frogs will require students to pay active attention, but they will not be able to maintain their attention for long.

You would then talk about passive attention. Passive attention is involuntary and requires no effort to maintain, unlike active attention, which does require effort; it occurs when people are naturally interested in the material. If a teacher pulls out a live frog, the students become more interested and passive attention is maintained.

You should budget your time so that you are able to include a good summary of both types of attention and talk about both examples of the frog lecture.

Your response should be intelligible, should demonstrate effective use of grammar and vocabulary, and should be well developed and coherent. Your response is scored using the Integrated Speaking Rubric (see Appendix A).

Writing Section

1. What is important to understand from the lecture is that the professor disagrees with the criticisms of communal online encyclopedias presented in the reading, namely that the encyclopedias contain inaccurate information; that unscrupulous users can tamper with the information in the encyclopedias; and that the encyclopedias do not distinguish important topics from unimportant ones.

   In your response, you should convey the reasons presented by the professor for why the criticisms of communal online encyclopedias are not convincing. A high-scoring response will include the following points made by the professor that cast doubt on the points made in the reading:

Point made in the reading	Counterpoint made in the lecture
Since entries in communal online encyclopedias are not always written by experts, they can be inaccurate and unreliable.	No encyclopedia is perfectly accurate. What really matters is how easily and quickly the mistakes can be corrected. In this regard, online encyclopedias are better than the traditional ones, because inaccurate content in online encyclopedias can be revised much faster.
Because anyone can make revisions to the content of online encyclopedias, unscrupulous users, vandals, and hackers can intentionally corrupt the content of articles in the encyclopedias.	Online encyclopedias have taken steps to protect their content from unscrupulous users, vandals, and hackers. Some important content is presented in a “read-only” format that cannot be revised.

	Also, special editors now monitor changes made to articles and eliminate revisions that are malicious.
Communal online encyclopedias often give equal space to articles on trivial topics and articles on serious topics. This creates a false impression about which information is important and which is not.	The fact that online encyclopedias contain information on all kinds of subjects is not a weakness but a strength. Diversity of topics covered by online encyclopedias is a true reflection of the diversity of people's interests. In contrast, traditional encyclopedias have limited space, and editors who choose which entries to include do not always take diverse interests into account.

Your response is scored using the Integrated Writing Rubric (see Appendix A). A response that receives a score of 5 clearly conveys all three of the main points in the table using accurate sentence structure and vocabulary.

2. To earn a top score, you should develop a multi-paragraph essay that responds to the issue of whether life is easier and more comfortable now than when your grandparents were children. Typically an effective response will contain a minimum of 300 words.

One successful way to express agreement with the prompt is to describe how developments in a particular field have helped to make life easier. Describing how work in the household has become so much easier as a result of the availability of electronic appliances could be one way to

develop such a response; you could explain how these machines save time on doing household tasks that years ago took many hours or even days to complete, and conclude that life is much easier now because we have more free time.

On the other hand, you could disagree with the prompt by explaining that life was more comfortable when your grandparents were children. For example, it may be the case that when your grandparents were children, the air and water were cleaner, food was fresher, and some types of jobs were less stressful; you could discuss the importance of any of those in support of your opinion.

Keep in mind that there is no "correct" answer to this question. Either side of the issue can be supported with examples and reasons. It is important to make sure that you state your opinion and develop a response that explains your opinion well. The development of your essay is judged by how effectively you support your opinion; a well-developed essay will contain clearly appropriate reasons, examples, and details that illustrate your opinion. Development is not evaluated simply in terms of how many words you write.

Your response should be well organized. A well-organized essay allows an evaluator to read from the beginning to the end of the essay without becoming confused. You should be sure not to just repeat the same information in different ways.

The quality and accuracy of the sentence structure and vocabulary you use to express your ideas is also very important.

Your response is scored using the Independent Writing Rubric (see Appendix A).

TOEFL iBT Test 4

READING

This section measures your ability to understand academic passages in English.

There are three passages in the section. Give yourself 20 minutes to read each passage and answer the questions about it. The entire section will take 60 minutes to complete.

You may look back at a passage when answering the questions. You can skip questions and go back to them later as long as there is time remaining.

Directions: Read the passage. Then answer the questions. Give yourself 20 minutes to complete this practice set.

POPULATION AND CLIMATE

The human population on Earth has grown to the point that it is having an effect on Earth's atmosphere and ecosystems. Burning of fossil fuels, deforestation, urbanization, cultivation of rice and cattle, and the manufacture of chlorofluorocarbons (CFCs) for propellants and refrigerants are increasing the concentration of carbon dioxide, methane, nitrogen oxides, sulphur oxides, dust, and CFCs in the atmosphere. About 70 percent of the Sun's energy passes through the atmosphere and strikes Earth's surface. This radiation heats the surface of the land and ocean, and these surfaces then reradiate infrared radiation back into space. This allows Earth to avoid heating up too much. However, not all of the infrared radiation makes it into space; some is absorbed by gases in the atmosphere and is reradiated back to Earth's surface. A greenhouse gas is one that absorbs infrared radiation and then reradiates some of this radiation back to Earth. Carbon dioxide, CFCs, methane, and nitrogen oxides are greenhouse gases. The natural greenhouse effect of our atmosphere is well established. In fact, without greenhouse gases in the atmosphere, scientists calculate that Earth would be about 33°C cooler than it currently is.

The current concentration of carbon dioxide in the atmosphere is about 360 parts per million. Human activities are having a major influence on atmospheric carbon dioxide concentrations, which are rising so fast that current predictions are that atmospheric concentrations of carbon dioxide will double in the next 50 to 100 years. The Intergovernmental Panel on Climate Change (IPCC) report in 1992, which represents a consensus of most atmospheric scientists, predicts that a doubling of carbon dioxide concentration would raise global temperatures anywhere between 1.4°C and 4.5°C. The IPCC report issued in 2001 raised the temperature prediction

almost twofold. The suggested rise in temperature is greater than the changes that occurred in the past between ice ages. The increase in temperatures would not be uniform, with the smallest changes at the equator and changes two or three times as great at the poles. The local effects of these global changes are difficult to predict, but it is generally agreed that they may include alterations in ocean currents, increased winter flooding in some areas of the Northern Hemisphere, a higher incidence of summer drought in some areas, and rising sea levels, which may flood low-lying countries.

Scientists are actively investigating the feedback mechanism within the physical, chemical, and biological components of Earth's climate system in order to make accurate predictions of the effects the rise in greenhouse gases will have on future global climates. Global circulation models are important tools in this process. These models incorporate current knowledge on atmospheric circulation patterns, ocean currents, the effect of landmasses, and the like to predict climate under changed conditions. There are several models, and all show agreement on a global scale. For example, all models show substantial changes in climate when carbon dioxide concentration is doubled. However, there are significant differences in the regional climates predicted by different models. Most models project greater temperature increases in mid-latitude regions and in mid-continental regions relative to the global average. Additionally, changes in precipitation patterns are predicted, with decreases in mid-latitude regions and increased rainfall in some tropical areas. Finally, most models predict that there will be increased occurrences of extreme events, such as extended periods without rain (drought), extreme heat waves, greater seasonal variation in temperatures, and increases in the frequency and magnitude of severe storms. Plants and animals have strong responses to virtually every aspect of these projected global changes.

The challenge of predicting organismal responses to global climate change is difficult. Partly, this is due to the fact that there are more studies of short-term, individual organism responses than there are of long-term, systemwide studies. It is extremely difficult, both monetarily

and physically, for scientists to conduct field studies at spatial and temporal scales that are large enough to include all the components of real-world systems, especially ecosystems with large, freely ranging organisms. One way paleobiologists try to get around this limitation is to attempt to reconstruct past climates by examining fossil life.

The relative roles that abiotic and biotic factors play in the distribution of organisms is especially important now, when the world is confronted with the consequences of a growing human population. Changes in climate, land use, and habitat destruction are currently causing dramatic decreases in biodiversity throughout the world. An understanding of climate-organism relationships is essential to efforts to preserve and manage Earth's biodiversity.

Directions: Now answer the questions.

PARAGRAPH 1

The human population on Earth has grown to the point that it is having an effect on Earth's atmosphere and ecosystems. Burning of fossil fuels, deforestation, urbanization, cultivation of rice and cattle, and the manufacture of chlorofluorocarbons (CFCs) for propellants and refrigerants are increasing the concentration of carbon dioxide, methane, nitrogen oxides, sulphur oxides, dust, and CFCs in the atmosphere. About 70 percent of the Sun's energy passes through the atmosphere and strikes Earth's surface. This radiation heats the surface of the land and ocean, and these surfaces then reradiate infrared radiation back into space. This allows Earth to avoid heating up too much. However, not all of the infrared radiation makes it into space; some is absorbed by gases in the atmosphere and is reradiated back to Earth's surface. A greenhouse gas is one that absorbs infrared radiation and then reradiates some of this radiation back to Earth. Carbon dioxide, CFCs, methane, and nitrogen oxides are greenhouse gases. The natural greenhouse effect of our

atmosphere is well established. In fact, without greenhouse gases in the atmosphere, scientists calculate that Earth would be about 33°C cooler than it currently is.

1. The phrase “makes it” in the passage is closest in meaning to
   Ⓐ is reflected
   Ⓑ collects
   Ⓒ arrives
   Ⓓ blends
2. It can be inferred from paragraph 1 that one positive aspect of greenhouse gases is that they
   Ⓐ absorb 70 percent of the Sun’s energy
   Ⓑ can be rapidly replenished in the atmosphere
   Ⓒ remove pollutants from ecosystems
   Ⓓ help keep Earth warm

PARAGRAPH 2

The current concentration of carbon dioxide in the atmosphere is about 360 parts per million. Human activities are having a major influence on atmospheric carbon dioxide concentrations, which are rising so fast that current predictions are that atmospheric concentrations of carbon dioxide will double in the next 50 to 100 years. The Intergovernmental Panel on Climate Change (IPCC) report in 1992, which represents a consensus of most atmospheric scientists, predicts that a doubling of carbon dioxide concentration would raise global temperatures anywhere between 1.4°C and 4.5°C. The IPCC report issued in 2001 raised the temperature prediction almost twofold. The suggested rise in temperature is greater than the changes that occurred in the past between ice ages. The increase in temperatures would not be uniform, with the smallest changes at the

equator and changes two or three times as great at the poles. The local effects of these global changes are difficult to predict, but it is generally agreed that they may include alterations in ocean currents, increased winter flooding in some areas of the Northern Hemisphere, a higher incidence of summer drought in some areas, and rising sea levels, which may flood low-lying countries.

3. According to paragraph 2, what can be said about the effects of global changes?

   Ⓐ The local plants and animals will be permanently damaged.

   Ⓑ It is hard to know exactly what form the local effects will take.

   Ⓒ Seawater levels will fall around the world.

   Ⓓ The effects will not occur in some regions of the world.

4. Which of the sentences below best expresses the essential information in the highlighted sentence in paragraph 2? Incorrect choices change the meaning in important ways or leave out essential information.

   Ⓐ The rapid rise of carbon dioxide concentrations can be attributed largely to the actions of humans.

   Ⓑ Predictions about atmospheric concentrations of carbon dioxide indicate that the influence of human activities will double soon.

   Ⓒ In the next 50 to 100 years, human activities will no longer have an influence on atmospheric carbon dioxide concentrations.

   Ⓓ Human activities can influence current predictions about atmospheric conditions.

5. The word “consensus” in the passage is closest in meaning to

   Ⓐ publication

   Ⓑ debate

   Ⓒ collection

Ⓓ agreement

PARAGRAPH 3

Scientists are actively investigating the feedback mechanism within the physical, chemical, and biological components of Earth's climate system in order to make accurate predictions of the effects the rise in greenhouse gases will have on future global climates. Global circulation models are important tools in this process. These models incorporate current knowledge on atmospheric circulation patterns, ocean currents, the effect of landmasses, and the like to predict climate under changed conditions. There are several models, and all show agreement on a global scale. For example, all models show substantial changes in climate when carbon dioxide concentration is doubled. However, there are significant differences in the regional climates predicted by different models. Most models project greater temperature increases in mid-latitude regions and in mid-continental regions relative to the global average. Additionally, changes in precipitation patterns are predicted, with decreases in mid-latitude regions and increased rainfall in some tropical areas. Finally, most models predict that there will be increased occurrences of extreme events, such as extended periods without rain (drought), extreme heat waves, greater seasonal variation in temperatures, and increases in the frequency and magnitude of severe storms. Plants and animals have strong responses to virtually every aspect of these projected global changes.

6. The phrase "this process" refers to

Ⓐ the interaction between physical and biological components of Earth's climate system

Ⓑ the increase of greenhouse gases in the atmosphere

Ⓒ predicting future global climate

Ⓓ global circulation models

7. According to paragraph 3, rainfall amounts are predicted to decrease in what parts of the world?
   - Ⓐ In mid-latitude regions
   - Ⓑ In tropical areas
   - Ⓒ In mid-continental regions
   - Ⓓ At the poles
8. The word “incorporate” in the passage is closest in meaning to
   - Ⓐ describe
   - Ⓑ include
   - Ⓒ expand
   - Ⓓ present
9. The word “virtually” in the passage is closest in meaning to
   - Ⓐ nearly
   - Ⓑ presumably
   - Ⓒ usually
   - Ⓓ visually
10. According to paragraph 3, climate models predict that all of the following events will occur with the increase in greenhouse gases EXCEPT
    - Ⓐ greater seasonal temperature changes
    - Ⓑ prolonged heat waves
    - Ⓒ increased diversity of plants and animals
    - Ⓓ longer dry periods

PARAGRAPH 5

The relative roles that abiotic and biotic factors play in the distribution of organisms is especially important now, when the world is confronted with the consequences of a growing human population. Changes in climate, land use, and habitat destruction are currently causing dramatic decreases in biodiversity throughout the world. An understanding of climate-organism relationships is essential to efforts to preserve and manage Earth's biodiversity.

11. The author's main purpose in paragraph 5 is to

Ⓐ explain the process of studying organism responses to climate change

Ⓑ stress the importance of learning how climate affects plants and animals

Ⓒ illustrate an important point about factors affecting biodiversity

Ⓓ examine current research practices on the distribution of organisms on Earth

PARAGRAPHS 1 2 3 4 & 5

The human population on Earth has grown to the point that it is having an effect on Earth's atmosphere and ecosystems. Burning of fossil fuels, deforestation, urbanization, cultivation of rice and cattle, and the manufacture of chlorofluorocarbons (CFCs) for propellants and refrigerants are increasing the concentration of carbon dioxide, methane, nitrogen oxides, sulphur oxides, dust, and CFCs in the atmosphere. About 70 percent of the Sun's energy passes through the atmosphere and strikes Earth's surface. This radiation heats the surface of the land and ocean, and these surfaces then reradiate infrared radiation back into space. This allows Earth to avoid heating up too much. However, not all of the infrared radiation makes it into space; some is absorbed by gases in the atmosphere and is reradiated back to Earth's surface. A greenhouse gas is one that absorbs infrared radiation and then reradiates some of this radiation back to Earth. Carbon dioxide, CFCs, methane, and nitrogen oxides

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regions relative to the global average. Additionally, changes in precipitation patterns are predicted, with decreases in mid-latitude regions and increased rainfall in some tropical areas. Finally, most models predict that there will be increased occurrences of extreme events, such as extended periods without rain (drought), extreme heat waves, greater seasonal variation in temperatures, and increases in the frequency and magnitude of severe storms. Plants and animals have strong responses to virtually every aspect of these projected global changes.

The challenge of predicting organismal responses to global climate change is difficult. Partly, this is due to the fact that there are more studies of short-term, individual organism responses than there are of long-term, systemwide studies. It is extremely difficult, both monetarily and physically, for scientists to conduct field studies at spatial and temporal scales that are large enough to include all the components of real-world systems, especially ecosystems with large, freely ranging organisms. One way paleobiologists try to get around this limitation is to attempt to reconstruct past climates by examining fossil life.

The relative roles that abiotic and biotic factors play in the distribution of organisms is especially important now, when the world is confronted with the consequences of a growing human population. Changes in climate, land use, and habitat destruction are currently causing dramatic decreases in biodiversity throughout the world. An understanding of climate-organism relationships is essential to efforts to preserve and manage Earth's biodiversity.

12. Look at the terms "greenhouse gas," "atmospheric circulation patterns," "global scale," and "biotic factors." Which of these terms is defined in the passage?

Ⓐ Greenhouse gas

Ⓑ Atmospheric circulation patterns

Ⓒ Global scale

Ⓓ Biotic factors

PARAGRAPH 4

The challenge of predicting organismal responses to global climate change is difficult. ■ Partly, this is due to the fact that there are more studies of short-term, individual organism responses than there are of long-term, systemwide studies. ■ It is extremely difficult, both monetarily and physically, for scientists to conduct field studies at spatial and temporal scales that are large enough to include all the components of real-world systems, especially ecosystems with large, freely ranging organisms. ■ One way paleobiologists try to get around this limitation is to attempt to reconstruct past climates by examining fossil life. ■

13. Look at the four squares [■] that indicate where the following sentence can be added to the passage.

Much of this work depends on the assumption that life forms adapted to a particular climate in the present were adapted to the same type of climate in the past.

Where would the sentence best fit?

Ⓐ The challenge of predicting organismal responses to global climate change is difficult. **Much of this work depends on the assumption that life forms adapted to a particular climate in the present were adapted to the same type of climate in the past.** Partly, this is due to the fact that there are more studies of short-term, individual organism responses than there are of long-term, systemwide studies. ■ It is extremely difficult, both monetarily and physically, for scientists to conduct field studies at spatial and temporal scales that are large enough to include all the components of real-world systems, especially ecosystems with large, freely ranging organisms. ■ One way paleobiologists try to get around this limitation is to attempt to reconstruct past climates by examining fossil life. ■

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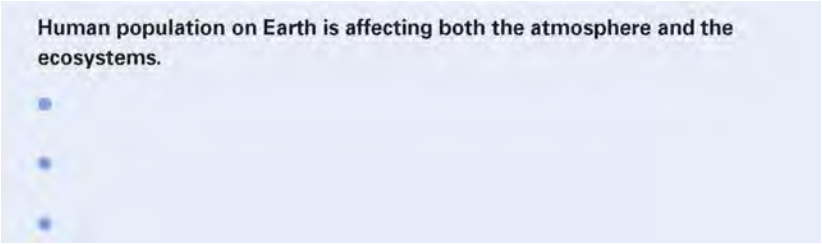
scientists to conduct field studies at spatial and temporal scales that are large enough to include all the components of real-world systems, especially ecosystems with large, freely ranging organisms. ■ One way paleobiologists try to get around this limitation is to attempt to reconstruct past climates by examining fossil life. **Much of this work depends on the assumption that life forms adapted to a particular climate in the present were adapted to the same type of climate in the past.**

14. **Directions:** An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the THREE answer choices that express the most important ideas in the passage. Some sentences do not belong in the summary because they express ideas that are not presented in the passage or are minor ideas in the passage.

Write your answer choices in the spaces where they belong. You can either write the letter of your answer choice or you can copy the sentence.



Answer Choices

1. A The survival of organisms on Earth is directly related to the amount of fossil fuels that are consumed.
2. B Atmospheric carbon dioxide concentrations are rising quickly.

3. [C] Scientists are working on ways to make precise forecasts of how the increase of greenhouse gases will affect Earth.
4. [D] Scientists predict that temperature changes would be greater at the poles than at the equator.
5. [E] Global circulation models can be used to measure the concentrations of chlorofluorocarbons in the atmosphere.
6. [F] The ability to make accurate predictions about global climate presents several difficulties.

Directions: Read the passage. Then answer the questions. Give yourself 20 minutes to complete this practice set.

EUROPE IN THE TWELFTH CENTURY

Europe in the eleventh century underwent enormous social, technological, and economic changes, but this did not create a new Europe—it created two new ones. The north was developed as a rigidly hierarchical society in which status was determined, or was at least indicated, by the extent to which one owned, controlled, or labored on land; whereas the Mediterranean south developed a more fluid, and therefore more chaotic, world in which industry and commerce predominated and social status both reflected and resulted from the role that one played in the public life of the community. In other words, individual identity and social community in the north were established on a personal basis, whereas in the south they were established on a civic basis. By the start of the twelfth century, northern and southern Europe were very different places indeed, and the Europeans themselves noticed it and commented on it.

Political dominance belonged to the north. Germany, France, and England had large populations and large armies that made them, in the political and military senses, the masters of western Europe. Organized by the practices known collectively as feudalism[1], these kingdoms emerged as powerful states with sophisticated machineries

of government. Their kings and queens were the leading figures of the age; their castles and cathedrals stood majestically on the landscape as symbols of their might; their armies both energized and defined the age. Moreover, feudal society showed a remarkable ability to adapt to new needs by encouraging the parallel development of domestic urban life and commercial networks; in some regions of the north, in fact, feudal society may even have developed in response to the start of the trends toward bigger cities. But southern Europe took the lead in economic and cultural life. Though the leading Mediterranean states were small in size, they were considerably wealthier than their northern counterparts. The Italian city of Palermo in the twelfth century, for example, alone generated four times the commercial tax revenue of the entire kingdom of England. Southern communities also possessed urbane, multilingual cultures that made them the intellectual and artistic leaders of the age. Levels of general literacy in the south far surpassed those of the north, and the people of the south put that learning to use on a large scale. Science, mathematics, poetry, law, historical writing, religious speculation, translation, and classical studies all began to flourish; throughout most of the twelfth century, most of the continent's best brains flocked to southern Europe.

So too did a lot of the north's soldiers. One of the central themes of the political history of the twelfth century was the continual effort by the northern kingdoms to extend their control southward in the hope of tapping into the Mediterranean bonanza. The German emperors starting with Otto I (936–973), for example, struggled ceaselessly to establish their control over the cities of northern Italy, since those cities generated more revenue than all of rural Germany combined. The kings of France used every means at their disposal to push the lower border of their kingdom to the Mediterranean shoreline. And the Normans who conquered and ruled England established outposts of Norman power in Sicily and the adjacent lands of southern Italy; the English kings also hoped or claimed at various times to be, either through money or marriage diplomacy, the rulers of several Mediterranean states. But as the northern world pressed southward,

so too did some of the cultural norms and social mechanisms of the south expand northward. Over the course of the twelfth century, the feudal kingdoms witnessed a proliferation of cities modeled in large degree on those of the south. Contact with the merchants and financiers of the Mediterranean led to the development of northern industry and international trade (which helped to pay for many of the castles and cathedrals mentioned earlier). And education spread as well, culminating in the foundation of what is arguably medieval Europe's greatest invention: the university. The relationship of north and south was symbiotic, in other words, and the contrast between them was more one of differences in degree than of polar opposition.

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1. **feudalism:** a political and economic system based on the relationship of a lord to people of lower status, who owed service and/or goods to the lord in exchange for the use of land.

Directions: Now answer the questions.

PARAGRAPH 1

Europe in the eleventh century underwent enormous social, technological, and economic changes, but this did not create a new Europe—it created two new ones. The north was developed as a rigidly hierarchical society in which status was determined, or was at least indicated, by the extent to which one owned, controlled, or labored on land; whereas the Mediterranean south developed a more fluid, and therefore more chaotic, world in which industry and commerce predominated and social status both reflected and resulted from the role that one played in the public life of the community. In other words, individual identity and social community in the north were established on a personal basis, whereas in the south they were established on a civic basis. By the start of the twelfth century, northern and southern Europe were very different places indeed, and the Europeans themselves noticed it and commented on it.

5. The word "rigidly" in the passage is closest in meaning to

Ⓐ extremely

Ⓑ normally

Ⓒ obviously

Ⓓ strictly

16. According to paragraph 1, which of the following was a deciding factor in a person's place in society in northern Europe at the end of the eleventh century?

Ⓐ Ownership of a commercial enterprise

Ⓑ Participation in social and technological changes

Ⓒ Role in public life in the community

Ⓓ Relationship to land through ownership or labor

17. According to paragraph 1, which of the following best characterizes the societies in European lands close to the Mediterranean Sea at the beginning of the twelfth century?

Ⓐ They were civic societies dominated by industry and commerce.

Ⓑ They were based on individual social status.

Ⓒ They had a fixed and hierarchical form of government.

Ⓓ They were established on the idea of individual responsibility.

PARAGRAPH 2

Political dominance belonged to the north. Germany, France, and England had large populations and large armies that made them, in the political and military senses, the masters of western Europe. Organized by the practices known collectively as feudalism[1], these kingdoms emerged as powerful states with sophisticated machineries of government. Their kings and queens were the leading figures of the age; their castles and cathedrals stood majestically on the landscape

as symbols of their might; their armies both energized and defined the age. Moreover, feudal society showed a remarkable ability to adapt to new needs by encouraging the parallel development of domestic urban life and commercial networks; in some regions of the north, in fact, feudal society may even have developed in response to the start of the trends toward bigger cities. But southern Europe took the lead in economic and cultural life. Though the leading Mediterranean states were small in size, they were considerably wealthier than their northern counterparts. The Italian city of Palermo in the twelfth century, for example, alone generated four times the commercial tax revenue of the entire kingdom of England. Southern communities also possessed urbane, multilingual cultures that made them the intellectual and artistic leaders of the age. Levels of general literacy in the south far surpassed those of the north, and the people of the south put that learning to use on a large scale. Science, mathematics, poetry, law, historical writing, religious speculation, translation, and classical studies all began to flourish; throughout most of the twelfth century, most of the continent's best brains flocked to southern Europe.

18. The word "counterparts" in the passage is closest in meaning to

Ⓐ associates

Ⓑ equivalents

Ⓒ opponents

Ⓓ admirers

19. Why does the author mention the "Italian city of Palermo" in the passage?

Ⓐ It had a population that spoke several different languages.

Ⓑ Its artists and intellectuals were famous both in the north and south.

Ⓒ Its commerce made it richer than a large northern country.

Ⓓ It was a relatively small and unimportant Mediterranean state.

20. The word “urbane” in the passage is closest in meaning to

Ⓐ cultivated

Ⓑ famous

Ⓒ popular

Ⓓ exceptional

21. According to paragraph 2, European intellectuals moved to southern Europe during the twelfth century because southern cities

Ⓐ needed learned people for commerce

Ⓑ paid educated people better than northern cities did

Ⓒ were flourishing centers of science, literature, and other studies

Ⓓ needed teachers to improve the levels of general learning

22. Which of the following best describes the organization of paragraph 2?

Ⓐ A statement of fact followed by examples

Ⓑ A description followed by a contrasting description

Ⓒ A series of detailed comparisons

Ⓓ A logical argument

PARAGRAPH 3

So too did a lot of the north’s soldiers. One of the central themes of the political history of the twelfth century was the continual effort by the northern kingdoms to extend their control southward in the hope of tapping into the Mediterranean bonanza. The German emperors starting with Otto I (936–973), for example, struggled ceaselessly to establish their control over the cities of northern Italy, since those cities generated more revenue than all of rural Germany combined. The kings of France used every means at their disposal to push the

lower border of their kingdom to the Mediterranean shoreline. And the Normans who conquered and ruled England established outposts of Norman power in Sicily and the adjacent lands of southern Italy; the English kings also hoped or claimed at various times to be, either through money or marriage diplomacy, the rulers of several Mediterranean states. But as the northern world pressed southward, so too did some of the cultural norms and social mechanisms of the south expand northward. Over the course of the twelfth century, the feudal kingdoms witnessed a proliferation of cities modeled in large degree on those of the south. Contact with the merchants and financiers of the Mediterranean led to the development of northern industry and international trade (which helped to pay for many of the castles and cathedrals mentioned earlier). And education spread as well, culminating in the foundation of what is arguably medieval Europe's greatest invention: the university. The relationship of north and south was symbiotic, in other words, and the contrast between them was more one of differences in degree than of polar opposition.

23. Which of the sentences below best expresses the essential information in the highlighted sentence in paragraph 3? Incorrect choices change the meaning in important ways or leave out essential information.

Ⓐ In political history, northern kingdoms tried to extend their control during the twelfth century, but the south tapped into the rich treasures it had around the Mediterranean.

Ⓑ Political history demonstrates that during the twelfth century, while southern states enjoyed the Mediterranean bonanza, northern countries increased the power of their kings.

Ⓒ The political history of twelfth-century Europe shows particularly that northern countries continually tried to expand their rule into the south to profit from the riches there.

Ⓓ Political history shows that northern kingdoms were so influenced by the example of Mediterranean wealth that they advanced into other areas.

24. The word “proliferation” in the passage is closest in meaning to

Ⓐ beginning

Ⓑ increase

Ⓒ occupation

Ⓓ construction

25. According to paragraph 3, northern Europe was influenced by the Mediterranean states in all of the following ways EXCEPT

Ⓐ the design of castles and cathedrals

Ⓑ the spread of education

Ⓒ the construction of cities

Ⓓ the development of industry and trade

PARAGRAPH 1

Europe in the eleventh century underwent enormous social, technological, and economic changes, but this did not create a new Europe—it created two new ones. ■ The north was developed as a rigidly hierarchical society in which status was determined, or was at least indicated, by the extent to which one owned, controlled, or labored on land; whereas the Mediterranean south developed a more fluid, and therefore more chaotic, world in which industry and commerce predominated and social status both reflected and resulted from the role that one played in the public life of the community. ■ In other words, individual identity and social community in the north were established on a personal basis, whereas in the south they were established on a civic basis. ■ By the start of the twelfth century, northern and southern Europe were very different places indeed, and the Europeans themselves noticed it and commented on it. ■

26. Look at the four squares [■] that indicate where the

following sentence can be added to the passage.

There was northern Europe on the one hand and southern Europe on the other.

Where would the sentence best fit?

Ⓐ Europe in the eleventh century underwent enormous social, technological, and economic changes, but this did not create a new Europe—it created two new ones. **There was northern Europe on the one hand and southern Europe on the other.** The north was developed as a rigidly hierarchical society in which status was determined, or was at least indicated, by the extent to which one owned, controlled, or labored on land; whereas the Mediterranean south developed a more fluid, and therefore more chaotic, world in which industry and commerce predominated and social status both reflected and resulted from the role that one played in the public life of the community. ■ In other words, individual identity and social community in the north were established on a personal basis, whereas in the south they were established on a civic basis. ■ By the start of the twelfth century, northern and southern Europe were very different places indeed, and the Europeans themselves noticed it and commented on it. ■

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predominated and social status both reflected and resulted from the role that one played in the public life of the community. ■ In other words, individual identity and social community in the north were established on a personal basis, whereas in the south they were established on a civic basis. ■ By the start of the twelfth century, northern and southern Europe were very different places indeed, and the Europeans themselves noticed it and commented on it. **There was northern Europe on the one hand and southern Europe on the other.**

27. **Directions**: Select from the seven phrases below the two phrases that correctly characterize northern Europe during the twelfth century and the three phrases that correctly characterize southern Europe. Two of the phrases will NOT be used.

Write your answer choices in the spaces where they belong. You can either write the letter of your answer choice or you can copy the sentence.

Answer Choices

1. A Democratic social structure
2. B Sophisticated culture

3. C Small wealthy states
4. D Famous kings and queens
5. E Extensive communication systems
6. F Highly literate population
7. G Large military forces

Directions: Read the passage. Then answer the questions. Give yourself 20 minutes to complete this practice set.

WHAT IS A COMMUNITY?

The Black Hills forest, the prairie riparian forest, and other forests of the western United States can be separated by the distinctly different combinations of species they comprise. It is easy to distinguish between prairie riparian forest and Black Hills forest—one is a broad-leaved forest of ash and cottonwood trees, the other is a coniferous forest of ponderosa pine and white spruce trees. One has kingbirds; the other, juncos (birds with white outer tail feathers). The fact that ecological communities are, indeed, recognizable clusters of species led some early ecologists, particularly those living in the beginning of the twentieth century, to claim that communities are highly integrated, precisely balanced assemblages. This claim harkens back to even earlier arguments about the existence of a balance of nature, where every species is there for a specific purpose, like a vital part in a complex machine. Such a belief would suggest that to remove any species, whether it be plant, bird, or insect, would somehow disrupt the balance, and the habitat would begin to deteriorate. Likewise, to add a species may be equally disruptive.

One of these pioneer ecologists was Frederick Clements, who studied ecology extensively throughout the Midwest and other areas in North America. He held that within any given region of climate, ecological communities tended to slowly converge toward a single endpoint, which he called the “climatic climax.” This “climax”

community was, in Clements's mind, the most well-balanced, integrated grouping of species that could occur within that particular region. Clements even thought that the process of ecological succession—the replacement of some species by others over time—was somewhat akin to the development of an organism, from embryo to adult. Clements thought that succession represented discrete stages in the development of the community (rather like infancy, childhood, and adolescence), terminating in the climatic "adult" stage, when the community became self-reproducing and succession ceased. Clements's view of the ecological community reflected the notion of a precise balance of nature.

Clements was challenged by another pioneer ecologist, Henry Gleason, who took the opposite view. Gleason viewed the community as largely a group of species with similar tolerances to the stresses imposed by climate and other factors typical of the region. Gleason saw the element of chance as important in influencing where species occurred. His concept of the community suggests that nature is not highly integrated. Gleason thought succession could take numerous directions, depending upon local circumstances.

Who was right? Many ecologists have made precise measurements, designed to test the assumptions of both the Clements and Gleason models. For instance, along mountain slopes, does one life zone, or habitat type, grade sharply or gradually into another? If the divisions are sharp, perhaps the reason is that the community is so well integrated, so holistic, so like Clements viewed it, that whole clusters of species must remain together. If the divisions are gradual, perhaps, as Gleason suggested, each species is responding individually to its environment, and clusters of species are not so integrated that they must always occur together.

It now appears that Gleason was far closer to the truth than Clements. The ecological community is largely an accidental assemblage of species with similar responses to a particular climate. Green ash trees are found in association with plains cottonwood trees because both can survive well on floodplains and the competition between them is not so strong that only one can persevere. One

ecological community often flows into another so gradually that it is next to impossible to say where one leaves off and the other begins. Communities are individualistic.

This is not to say that precise harmonies are not present within communities. Most flowering plants could not exist were it not for their pollinators—and vice versa. Predators, disease organisms, and competitors all influence the abundance and distribution of everything from oak trees to field mice. But if we see a precise balance of nature, it is largely an artifact of our perception, due to the illusion that nature, especially a complex system like a forest, seems so unchanging from one day to the next.

Directions: Now answer the questions.

PARAGRAPH 1

The Black Hills forest, the prairie riparian forest, and other forests of the western United States can be separated by the distinctly different combinations of species they comprise. It is easy to distinguish between prairie riparian forest and Black Hills forest—one is a broad-leaved forest of ash and cottonwood trees, the other is a coniferous forest of ponderosa pine and white spruce trees. One has kingbirds; the other, juncos (birds with white outer tail feathers). The fact that ecological communities are, indeed, recognizable clusters of species led some early ecologists, particularly those living in the beginning of the twentieth century, to claim that communities are highly integrated, precisely balanced assemblages. This claim harkens back to even earlier arguments about the existence of a balance of nature, where every species is there for a specific purpose, like a vital part in a complex machine. Such a belief would suggest that to remove any species, whether it be plant, bird, or insect, would somehow disrupt the balance, and the habitat would begin to deteriorate. Likewise, to add a species may be equally disruptive.

28. In paragraph 1, why does the author distinguish between prairie riparian forest and Black Hills forest?

Ⓐ To highlight the difference between the views of various ecologists about the nature of ecological communities

Ⓑ To illustrate why some ecologists tended to view ecological communities as highly integrated

Ⓒ To demonstrate that one forest has a greater variety of species than the other

Ⓓ To show how these two forests differ from others in the United States

29. According to paragraph 1, what was a common claim about ecological communities before the early twentieth century?

Ⓐ Every species in a community has a specific role in that community.

Ⓑ It is important to protect communities by removing certain species.

Ⓒ A precise balance is difficult to maintain in an ecological community.

Ⓓ It is necessary for new species to be added quickly as ecological communities develop.

30. The word “clusters” in the passage is closest in meaning to

Ⓐ models

Ⓑ categories

Ⓒ examples

Ⓓ groups

31. According to paragraph 1, the belief in a balance of nature suggests that removing a species from an ecological community would have which of the following

effects?

Ⓐ It would reduce competition between the remaining species of the community.

Ⓑ It would produce a different, but equally balanced, community.

Ⓒ It would lead to a decline in the community.

Ⓓ It would cause more harm than adding a species to the community.

PARAGRAPH 2

One of these pioneer ecologists was Frederick Clements, who studied ecology extensively throughout the Midwest and other areas in North America. He held that within any given region of climate, ecological communities tended to slowly converge toward a single endpoint, which he called the “climatic climax.” This “climax” community was, in Clements’s mind, the most well-balanced, integrated grouping of species that could occur within that particular region. Clements even thought that the process of ecological succession—the replacement of some species by others over time—was somewhat akin to the development of an organism, from embryo to adult. Clements thought that succession represented discrete stages in the development of the community (rather like infancy, childhood, and adolescence), terminating in the climatic “adult” stage, when the community became self-reproducing and succession ceased. Clements’s view of the ecological community reflected the notion of a precise balance of nature.

32. The word “ceased” in the passage is closest in meaning to

Ⓐ succeeded

Ⓑ balanced

Ⓒ ended

Ⓓ advanced

33. Which of the following best represents the view of ecological communities associated with Frederick Clements in paragraph 2?

Ⓐ Only when all species in a community are at the reproductive stage of development is an ecological community precisely balanced.

Ⓑ When an ecological community achieves “climatic climax,” it begins to decline.

Ⓒ All climates have similar climax communities.

Ⓓ Ecological communities eventually reach the maximum level of balance that is possible for their region.

34. According to paragraph 2, Clements compared the process of ecological succession to

Ⓐ the replacement of animal habitats over time

Ⓑ the development of an organism

Ⓒ self-reproduction

Ⓓ changes in climate

PARAGRAPH 3

Clements was challenged by another pioneer ecologist, Henry Gleason, who took the opposite view. Gleason viewed the community as largely a group of species with similar tolerances to the stresses imposed by climate and other factors typical of the region. Gleason saw the element of chance as important in influencing where species occurred. His concept of the community suggests that nature is not highly integrated. Gleason thought succession could take numerous directions, depending upon local circumstances.

35. According to Gleason in paragraph 3, the occurrence of a

species in a particular community is influenced by

Ⓐ unpredictable events

Ⓑ how individualistic the species is

Ⓒ the number of other species present

Ⓓ the tolerance of other species to stresses

PARAGRAPH 4

Who was right? Many ecologists have made precise measurements, designed to test the assumptions of both the Clements and Gleason models. For instance, along mountain slopes, does one life zone, or habitat type, grade sharply or gradually into another? If the divisions are sharp, perhaps the reason is that the community is so well integrated, so holistic, so like Clements viewed it, that whole clusters of species must remain together. If the divisions are gradual, perhaps, as Gleason suggested, each species is responding individually to its environment, and clusters of species are not so integrated that they must always occur together.

36. What did the ecologists in paragraph 4 hope to determine with their measurements?

Ⓐ Whether different species compete for the same environments

Ⓑ Whether habitats are sharply separated or gradually flow into each other

Ⓒ Whether succession differs in different types of habitats

Ⓓ Whether integrated communities survive better than independent communities

PARAGRAPH 5

It now appears that Gleason was far closer to the truth than

Clements. The ecological community is largely an accidental assemblage of species with similar responses to a particular climate. Green ash trees are found in association with plains cottonwood trees because both can survive well on floodplains and the competition between them is not so strong that only one can persevere. One ecological community often flows into another so gradually that it is next to impossible to say where one leaves off and the other begins. Communities are individualistic.

37. In paragraph 5, why does the author mention green ash trees and plains cottonwood trees?

Ⓐ To support the current view about how ecological communities develop

Ⓑ To provide an example of species that prefer to live on floodplains

Ⓒ To provide evidence that supports the theory of Clements

Ⓓ To show where one ecological community stops and the other begins

38. The word "persevere" in the passage is closest in meaning to

Ⓐ reproduce

Ⓑ fail

Ⓒ expand

Ⓓ continue

PARAGRAPH 6

This is not to say that precise harmonies are not present within communities. Most flowering plants could not exist were it not for their pollinators—and vice versa. Predators, disease organisms, and competitors all influence the abundance and distribution of everything from oak trees to field mice. But if we see a precise balance of nature,

it is largely an artifact of our perception, due to the illusion that nature, especially a complex system like a forest, seems so unchanging from one day to the next.

39. Which of the sentences below best expresses the essential information in the highlighted sentence in paragraph 6? Incorrect choices change the meaning in important ways or leave out essential information.

Ⓐ We see nature as precisely balanced because nature is unchanging.

Ⓑ A precise balance of nature is not possible because of the complexity of natural systems.

Ⓒ Our sense that nature is precisely balanced results from the illusion that it is unchanging.

Ⓓ Because nature is precisely balanced, complex systems do not seem to change.

PARAGRAPH 4

■ Who was right? ■ Many ecologists have made precise measurements, designed to test the assumptions of both the Clements and Gleason models. ■ For instance, along mountain slopes, does one life zone, or habitat type, grade sharply or gradually into another? ■ If the divisions are sharp, perhaps the reason is that the community is so well integrated, so holistic, so like Clements viewed it, that whole clusters of species must remain together. If the divisions are gradual, perhaps, as Gleason suggested, each species is responding individually to its environment, and clusters of species are not so integrated that they must always occur together.

40. Look at the four squares [■] that indicate where the following sentence can be added to the passage.

Their research has helped to decide between the two views

because it has focused on questions to which Clements and Gleason would give opposing answers.

Where would the sentence best fit?

Ⓐ **Their research has helped to decide between the two views because it has focused on questions to which Clements and Gleason would give opposing answers.** Who was right? ■ Many ecologists have made precise measurements, designed to test the assumptions of both the Clements and Gleason models. ■ For instance, along mountain slopes, does one life zone, or habitat type, grade sharply or gradually into another? ■ If the divisions are sharp, perhaps the reason is that the community is so well integrated, so holistic, so like Clements viewed it, that whole clusters of species must remain together. If the divisions are gradual, perhaps, as Gleason suggested, each species is responding individually to its environment, and clusters of species are not so integrated that they must always occur together.

Ⓑ ■ Who was right? **Their research has helped to decide between the two views because it has focused on questions to which Clements and Gleason would give opposing answers.** Many ecologists have made precise measurements, designed to test the assumptions of both the Clements and Gleason models. ■ For instance, along mountain slopes, does one life zone, or habitat type, grade sharply or gradually into another? ■ If the divisions are sharp, perhaps the reason is that the community is so well integrated, so holistic, so like Clements viewed it, that whole clusters of species must remain together. If the divisions are gradual, perhaps, as Gleason suggested, each species is responding individually to its environment, and clusters of species are not so integrated that they must always occur together.

Ⓒ ■ Who was right? ■ Many ecologists have made precise measurements, designed to test the assumptions of both the Clements and Gleason models. **Their research has helped to decide between the two views because it has focused on questions to which Clements and Gleason would give opposing answers.** For instance, along mountain slopes, does one life zone, or habitat type, grade sharply or gradually into another? ■ If the divisions are sharp, perhaps the reason is that the community is so well integrated, so holistic, so like Clements viewed it, that whole clusters of species must remain together. If the divisions are gradual, perhaps, as Gleason suggested, each species is responding individually to its environment, and clusters of species are not so integrated that they must always occur together.

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11. **Directions:** An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the THREE answer choices that express the most important ideas in the passage. Some sentences do

not belong in the summary because they express ideas that are not presented in the passage or are minor ideas in the passage.

Write your answer choices in the spaces where they belong. You can either write the letter of your answer choice or you can copy the sentence.

Answer Choices

1. A Clements held that ecological communities were like organisms that compete with each other for dominance in a particular climatic region.
2. B Clements saw the community as a collection of thoroughly interdependent species progressing toward a single climax community.
3. C Gleason held that within a single climatic region, differing local factors would cause ecological communities to develop in different ways.
4. D Gleason believed that sharp divisions would exist between species in different habitats.
5. E Today's ecologists recognize that ecological communities must be precisely and permanently balanced.
6. F The current thinking is that communities are individualistic and largely accidental collections of species with similar needs and tolerances.

LISTENING

This section measures your ability to understand conversations and lectures in English.

Listen to each conversation and lecture only one time. After each conversation and lecture, you will answer some questions about it. Answer each question based on what is stated or implied by the speakers.

You may take notes while you listen and use your notes to help you answer the questions. Your notes will **not** be scored.

In some questions you will see this icon: . This means that you will hear, but not see, the question.

Answer each question before moving on. Do not return to previous questions.

It will take about 60 minutes to listen to the conversations and lectures and answer the questions about them.

Directions: Listen to Track 63. 🎧

Directions: Now answer the questions.

1. Why does the man go to the computer center?
   - Ⓐ To learn how to use the Internet
   - Ⓑ To ask the woman where he can buy a computer
   - Ⓒ To ask if he can get instruction on using computers
   - Ⓓ To find out where the computer labs are located
2. How did the man probably feel when he first arrived at the computer center?
   - Ⓐ Embarrassed about his lack of computer skills
   - Ⓑ Excited to learn about computers
   - Ⓒ Upset that he needs to take an expensive computer course
   - Ⓓ Nervous about an assignment to write a paper on a computer
3. What does the woman imply about the book she bought

for her father?

Ⓐ It does not include instruction on word processing.

Ⓑ It is not available at the campus bookstore.

Ⓒ It is intended only for people with a lot of computer experience.

Ⓓ It might be helpful for the man.

4. What does the woman imply about the student assistants?

Ⓐ The man will not be able to work with them for long.

Ⓑ They may not be good instructors for beginners.

Ⓒ They are required to teach students to use the computers.

Ⓓ Not all of them know about computers.

5. What will the woman do to help the man?

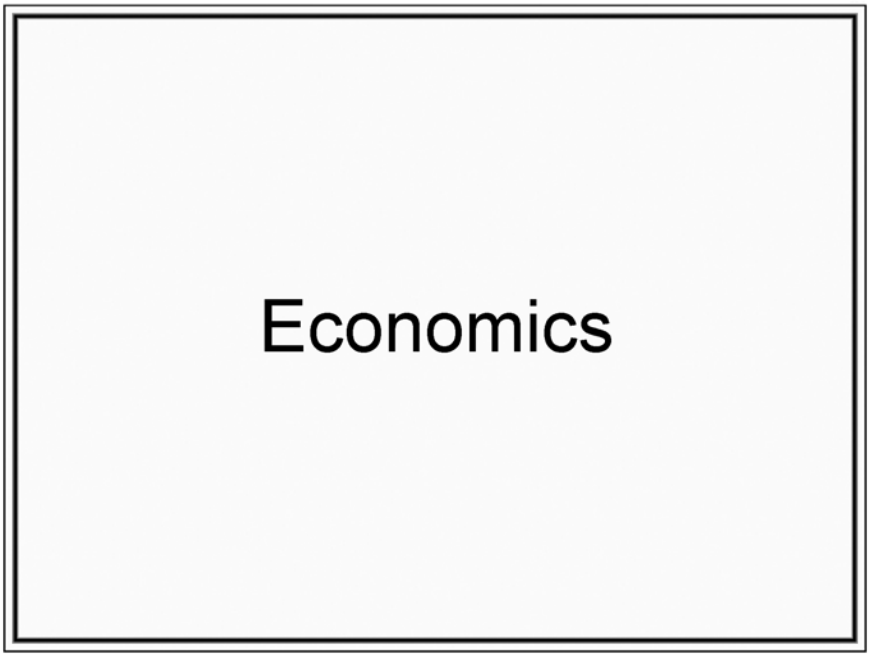
Ⓐ Lend him a book on computers

Ⓑ Give him a list of computer courses

Ⓒ Give him a list of student assistants

Ⓓ Recommend a computer instructor

Directions: Listen to Track 64. 🎧



Directions: Now answer the questions.

6. What is the lecture mainly about?
   - Ⓐ Ways to limit the expansion of international trade
   - Ⓑ How restrictions on international trade can cause economic

harm

Ⓒ Factors that influence the distribution of exports

Ⓓ Why international trade has expanded in recent years

7. According to the professor, why do many people want imports to be regulated?

Ⓐ To allow for price increases in domestic products

Ⓑ To make the prices of exports more competitive

Ⓒ To protect against domestic unemployment

Ⓓ To encourage the economic growth of certain industries

8. According to the professor, what is a negative result of limiting imports?

Ⓐ The pace of technological innovation slows down.

Ⓑ The number of domestic low-paying jobs decreases.

Ⓒ People move to areas where income is lower.

Ⓓ The potential income from exports is reduced.

9. What does the professor imply about the sugar industry in Florida?

Ⓐ It is a good source of high-paying jobs.

Ⓑ It should not be protected from competition from imports.

Ⓒ It is a good example of the effect of international specialization.

Ⓓ It is managed cost effectively.

10. What does the professor imply about the effect of increasing imports?

Ⓐ It will eventually result in a decrease in exports.

Ⓑ It is not necessarily bad for the economy.

Ⓒ It creates domestic economic problems that are easily solved.

Ⓓ Its impact on the economy is immediately apparent.

11. What is the professor’s opinion of retraining and relocating unemployed people?

Ⓐ It is more expensive over time than blocking imports.
Ⓑ It can sometimes have unintended consequences.
Ⓒ It is one possible way to adapt to an increase in imports.
Ⓓ It maintains the production levels of inefficient industries.

Directions: Listen to Track 65. 🎧

baleen whale

Directions: Now answer the questions.

12. What does the professor mainly discuss?

Ⓐ Why some whales do not migrate

Ⓑ How and why baleen whales migrate

Ⓒ How baleen whales communicate with other whales

Ⓓ How different whales hunt for their food

13. According to the professor, what is a common reason for migration that does NOT apply to baleen whales?

Ⓐ The need to avoid lower water temperatures

Ⓑ The need to raise young in a suitable environment

Ⓒ The need to find better feeding grounds

Ⓓ The need to find a mating partner

14. In order to prove or disprove the balancing-act theory of whale migration, what question needs to be answered?

Ⓐ Whether or not whales have good eyesight

Ⓑ How long baleen whales are able to survive without food

Ⓒ How fast baleen whales can swim compared with other kinds of whales

Ⓓ Whether moving south saves whales more energy than staying north

15. According to the professor, what are the possible means used by migrating whales to find the right direction? *Choose 3 answers.*

[A] Using magnetic fields as a guide

[B] Recognizing coastal landmarks

[C] Following the heat of the tropical water

[D] Listening to sounds that bounce off of the land

[E] Following the migrating plankton

16. Listen to Track 66. 🎧

Ⓐ She is not an expert on what she is about to discuss.

Ⓑ She will discuss only what is relevant to her main point.

Ⓒ She thinks her students already understand her point.

Ⓓ She will not repeat what was discussed in previous classes.

17. Listen to Track 67. 🎧

Ⓐ It is not obvious how whales find their way.

Ⓑ Different whales have different ways of locating food.

Ⓒ Whales have a poor sense of orientation.

Ⓓ Scientists have not been able to track the whales.

Directions: Listen to Track 68. 🎧

Directions: Now answer the questions.

18. Why does the student go to see her advisor, Professor Anderson?

Ⓐ She wants Professor Anderson's help with her research.

Ⓑ She is responding to Professor Anderson's invitation.

Ⓒ She has a complaint about another professor.

Ⓓ She wants to get a letter of recommendation to law school.

19. Why does the student mention Professor Connelly's class?

Ⓐ She was not happy with the grade she received in the class.

Ⓑ She might be able to expand the research she did in the class.

Ⓒ It was the most difficult class she ever took.

Ⓓ Professor Connelly took the class on a trip to Venezuela.

20. What does the student tell Professor Anderson she will do before their next meeting?

Ⓐ Register for Professor Connelly's class

Ⓑ Begin to write her honors thesis

Ⓒ Turn in her honors project to Professor Connelly

Ⓓ Talk to Professor Connelly about doing an honors project

21. Listen to Track 69.

Ⓐ Very few students are asked to consider writing an honors thesis.

Ⓑ The woman has shown poor research skills in the past.

Ⓒ An honors thesis could help the woman get into law school.

Ⓓ The woman should write a proposal outlining her research skills.

22. Listen to Track 70.

Ⓐ She is uncertain about her ability to write an honors thesis.

Ⓑ She does not think an honors thesis would be useful to her.

Ⓒ She considers herself to be a good writer.

Ⓓ She has only written one research paper before.

Directions: Listen to Track 71.

Directions: Now answer the questions.

23. What is the lecture mainly about?

Ⓐ Why some newspapers do not improve their services

Ⓑ What newspapers can do to increase their readership

Ⓒ Why local newspapers cannot compete with major newspapers

Ⓓ How the topics that interest readers have changed over the years

24. According to the professor, what topics are newspaper readers most interested in? *Choose 2 answers.*

[A] Political issues

[B] Entertainment and weather

[C] Natural disasters and accidents

[D] Ordinary people

25. According to the professor, how can newspapers attract readers to serious stories?

Ⓐ By including photos that provide background information

Ⓑ By making minor revisions to the content of the story

Ⓒ By making the format more appealing to readers

Ⓓ By gradually increasing the number of serious stories

26. What does the professor imply about the use of colors in newspapers?

Ⓐ It has been greatly influenced by reader preferences.

Ⓑ It is more effective than early research indicated.

Ⓒ It has not resulted in significant increases in the number of readers.

Ⓓ It has been neglected in the study of journalism.

27. Listen to Track 72. 🎧

Ⓐ He agrees with the professor completely.

Ⓑ He is surprised by the professor's point of view.

Ⓒ He is not familiar with the topic the professor is discussing.

Ⓓ He can offer a solution to the problem being discussed.

28. Listen to Track 73. 🎧

Ⓐ He fully supports the student's statement.

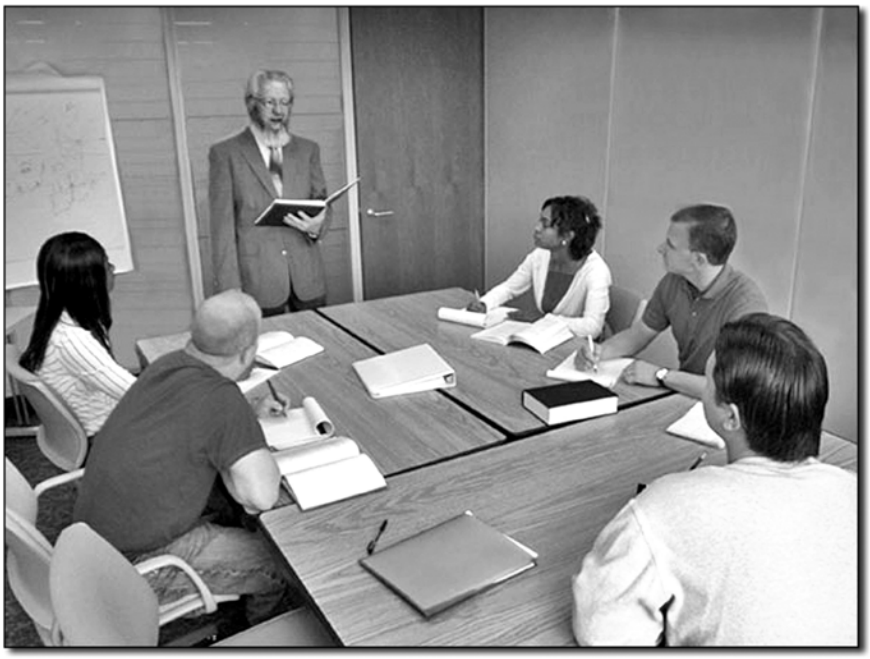
Ⓑ His experience this morning was unexpected.

Ⓒ He was not affected by what happened this morning.

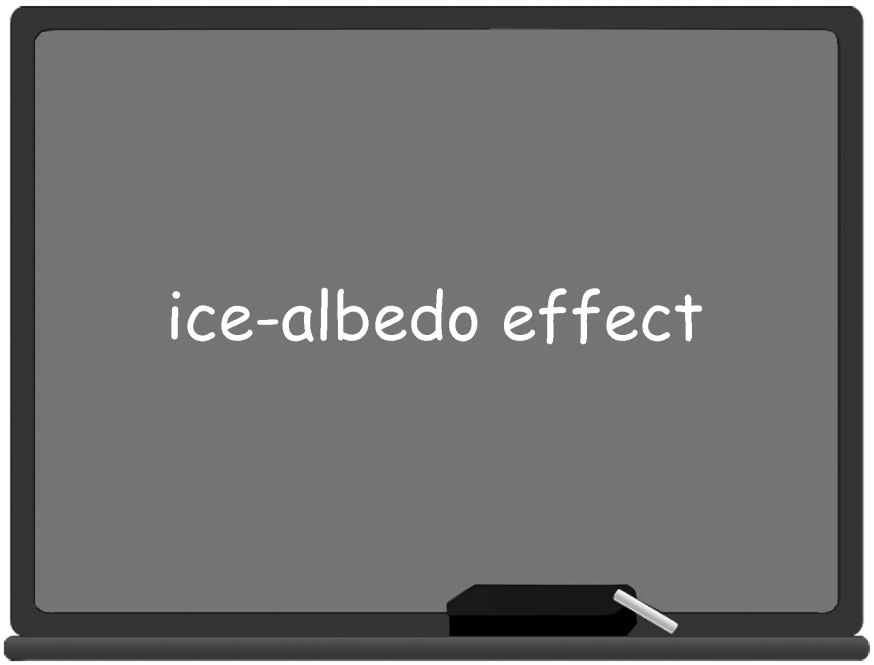
Ⓓ The student should not complain.

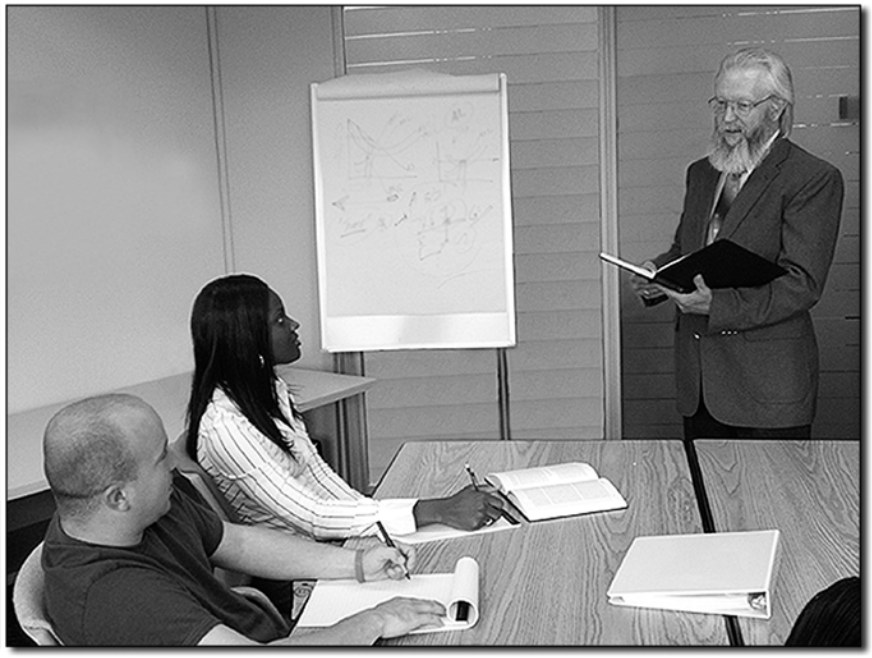
Directions: Listen to Track 74. 🎧

Geology

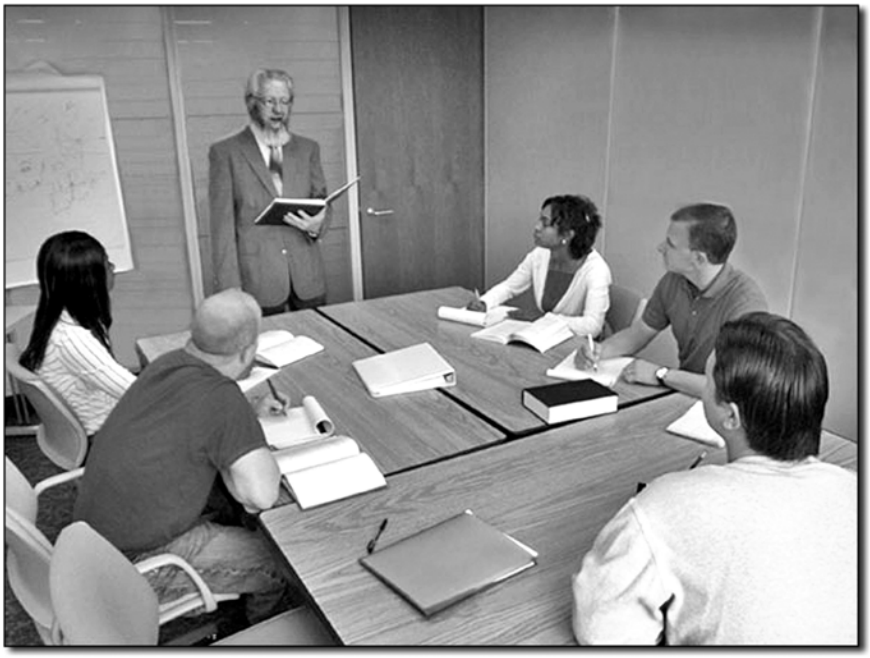


erratics


ice-albedo effect



calcium carbonate



Directions: Now answer the questions.

29. What aspect of the Earth 750 million years ago is the lecture mainly about?

Ⓐ The changes in locations of the continents

Ⓑ The effect of greenhouse gases on the atmosphere

Ⓒ Factors that influenced the ocean currents

Ⓓ Factors that contributed to a global freeze

30. According to the professor, how do geologists interpret the presence of erratics in the tropics?

Ⓐ It indicates that carbon-dioxide levels were once higher there.

Ⓑ It is evidence of global glaciation.

Ⓒ It indicates that the Earth may cool off at some point in the future.

Ⓓ It is evidence that some glaciers originated there.

31. What is the ice-albedo effect?

Ⓐ Global warming is balanced by carbon dioxide in the oceans.

Ⓑ Solar radiation retained in the atmosphere melts ice.

Ⓒ Large amounts of carbon dioxide are removed from the atmosphere.

Ⓓ Reflection of heat by glaciers contributes to their growth.

32. What is the relationship between carbon dioxide and silicate rocks?

Ⓐ Silicate rocks are largely composed of carbon dioxide.

Ⓑ Silicate rocks contribute to the creation of carbon dioxide.

Ⓒ The erosion of silicate rocks reduces carbon-dioxide levels in the atmosphere.

Ⓓ The formation of silicate rocks removes carbon dioxide from the oceans.

33. What was one feature of the Earth that contributed to the runaway freeze 750 million years ago?

Ⓐ Carbon-dioxide levels in the oceans were low.

Ⓑ The continents were located close to the equator.

Ⓒ The movement of glaciers carried away large quantities of rock.

Ⓓ The level of greenhouse gases in the atmosphere was high.

34. Listen to Track 75. 🎧

Ⓐ To compare an unfamiliar object to a familiar one

Ⓑ To reveal evidence that contradicts his point

Ⓒ To indicate uncertainty as to what deposits from glaciers look like

Ⓓ To encourage students to examine rocks in streams

SPEAKING

This section measures your ability to speak in English about a variety of topics.

There are six questions in this section. For each question, you will be given a short time to prepare your response. When the preparation time is up, answer the question as completely as possible in the time indicated for that question. You should record your responses so that you can review them later and compare them with the answer key and scoring rubrics.

1. You will now be asked to speak about a familiar topic. Give yourself 15 seconds to prepare your response. Then record yourself speaking for 45 seconds.

   Listen to Track 76. 🎧

   Sometimes one individual can have a great impact on a group or community. Select one person and explain how you think this person has affected others in the group or community. Give specific details and examples to explain your answer.

   Preparation Time: 15 seconds

   Response Time: 45 seconds

2. You will now be asked to give your opinion about a familiar topic. Give yourself 15 seconds to prepare your response. Then record yourself speaking for 45 seconds.

   Listen to Track 77. 🎧

   When some people visit a city or country for the first time, they prefer to take an organized tour. Other people prefer to explore new places on their own. Which do you prefer and why?

   Preparation Time: 15 seconds

Response Time: 45 seconds

3. You will now read a short passage and listen to a conversation on the same topic. You will then be asked a question about them. After you hear the question, give yourself 30 seconds to prepare your response. Then record yourself speaking for 60 seconds.

Listen to Track 78. 🎧

Reading Time: 45 seconds

Professor Fox Accepts New Position

We are happy to announce that Professor Fox will be filling the vacant Dean of Students position. Strong organizational skills are important for this position. Professor Fox has demonstrated such skills in her role as Head of the Philosophy Department, where she has coordinated department affairs for five years. Additionally, the Dean of Students must be someone who is able to work well with students, since responsibilities include counseling and advising students who are dealing with personal problems. As our head women's soccer coach, Professor Fox has proven to be a supportive role model for team members, always offering assistance when they ask for personal guidance.

Listen to Track 79. 🎧

The woman expresses her opinion about the change described in the article. Briefly summarize the change. Then state her opinion about the change and explain the reasons she gives for holding that opinion.

Preparation Time: 30 seconds

Response Time: 60 seconds

4. You will now read a short passage and listen to a lecture on the same topic. You will then be asked a question about them. After you hear the question, give yourself 30 seconds to prepare your response. Then record yourself speaking for 60 seconds.

Listen to Track 80. 🎧

Reading Time: 45 seconds

Critical Period

It is generally believed that for many organisms, there is a specific time period, a so-called "window of opportunity," during which the organism must receive crucial input from its environment in order for normal development to occur. This period is called the *critical period*. If the needed environmental input is not received during this period, the normal development of certain physical attributes or behaviors may never occur. In other words, if the organism is not provided with the needed stimulus or influence during the critical period, it may permanently lose the capacity to ever obtain a particular physical attribute or behavior.

Listen to Track 81. 🎧

Using the examples of kittens and geese, explain the idea of a critical period.

Preparation Time: 30 seconds

Response Time: 60 seconds

5. You will now listen to part of a conversation. You will then be asked a question about it. After you hear the question, give yourself 20 seconds to prepare your response. Then record yourself speaking for 60 seconds.

   Listen to Track 82. 🎧

Briefly summarize the problem the speakers are discussing.

Then state which of the two solutions from the conversation you would recommend. Explain the reasons for your recommendation.

Preparation Time: 20 seconds

Response Time: 60 seconds

6. You will now listen to part of a lecture. You will then be asked a question about it. After you hear the question, give yourself 20 seconds to prepare your response. Then record yourself speaking for 60 seconds.

   Listen to Track 83. 🎧

Using the example of the vacuum cleaner, explain when it is legally acceptable to use exaggeration in advertising and when it is not.

Preparation Time: 20 seconds

Response Time: 60 seconds

WRITING

This section measures your ability to write in English to communicate in an academic environment.

There are two writing questions in this section.

For question 1, you will read a passage and listen to a lecture about the same topic. You may take notes while you read and listen. Then you will write a response to a question based on what you have read and heard. You may look back at the passage when answering the question. You may use your notes to help you answer the question. You have 20 minutes to plan and write your response.

For question 2, you will write an essay based on your own knowledge and experience. You have 30 minutes to plan and complete your essay.

1. **Directions:** Give yourself 3 minutes to read the passage.

Reading Time: 3 minutes

Many people dream of owning their own business but are afraid of the risks. Instead of starting a new business, however, one can buy a franchise. A franchise is a license issued by a large, usually well-known, company to a small business owner. Under the license, the owner acquires the right to use the company's brand name and agrees to sell its products. In return, the franchising company receives a percent of the sales.

A major problem for first-time business owners is finding reliable suppliers of the goods and services they need: equipment, raw materials, maintenance, etc. It is easy to choose the wrong supplier, and doing so can be costly. Buying a franchise eliminates much of this problem. Most franchising companies have already found reliable suppliers, and franchise contracts typically specify which suppliers are to be used. This protects franchise owners from the risk of serious losses.

Another advantage of a franchise is that it can save a new business a lot of money on advertising. Advertising one's product to potential customers is a crucial factor in a business's success. A franchise owner, however, sells an already popular and recognized brand and also gets the benefit of sophisticated and expensive advertising paid by the parent company.

Finally, a franchise offers more security than starting an independent (nonfranchise) business. The failure rate for starting independent businesses is very high during the first few years; the failure rate for starting franchises is much lower. Finding one's own way in today's competitive business environment is difficult, and buying a franchise allows an inexperienced business owner to use

a proven business model.

Listen to Track 84. 🎧

Directions: You have 20 minutes to plan and write your response. Your response will be judged on the basis of the quality of your writing and on how well your response presents the points in the lecture and their relationship to the reading passage. Typically, an effective response will be 150 to 225 words.

Listen to Track 85. 🎧

Response Time: 20 minutes

Summarize the points made in the lecture, being sure to explain how they challenge specific points made in the reading passage.

2. **Directions:** Read the question below. You have 30 minutes to plan, write, and revise your essay. Typically, an effective response will contain a minimum of 300 words.

Response Time: 30 minutes

Do you agree or disagree with the following statement?

> **People learn things better from those at their own level—such as fellow students or co-workers—than from those at a higher level, such as teachers or supervisors.**

Use specific reasons and examples to support your answer.

ANSWERS

Reading Section

1. C
2. D
3. B
4. A
5. D
6. C
7. A
8. B
9. A
10. C
11. B
12. A
13. D
14. B, C, F
15. D
16. D
17. A
18. B
19. C
20. A
21. C

22. B
23. C
24. B
25. A
26. A
27. D, G, B, C, F
28. B
29. A
30. D
31. C
32. C
33. D
34. B
35. A
36. B
37. A
38. D
39. C
40. C
41. B, C, F

Listening Section

1. C
2. A
3. D
4. B
5. C

6. B
7. C
8. D
9. B
10. B
11. C
12. B
13. C
14. D
15. A, B, D
16. B
17. A
18. B
19. B
20. D
21. C
22. A
23. B
24. B, D
25. C
26. C
27. B
28. A
29. D
30. B
31. D
32. C

33. B
34. A

Speaking Section

1. There are many ways you could answer this particular question. You first need to choose one person and explain how that person has had a great impact on a group. It is important to provide an explanation for your choice beyond simply stating that the person is important or great. You should provide clear support so that your listeners understand why this person was important or great.

   As an example, you may choose to talk about a person that you work with. You could say that this person is a very good leader, and this person's leadership has enabled your company to achieve many great things, such as obtain many new clients. Also, you could say that this person has had an effect on the other members of the group because the other members have followed this person's example to be better employees.

   Your response should be intelligible, should demonstrate effective use of grammar and vocabulary, and should be well developed and coherent. Your response is scored using the Independent Speaking Rubric (see Appendix A).

2. To respond to this particular question, you should clearly state what your opinion is: do you prefer to take an organized tour when visiting a place for the first time, or do you prefer to explore the new place on your own? There is no "correct" answer to this question. Whichever option you prefer, your answer should be supported with examples.

   If you think that it is better to take an organized tour, you could say that a tour is better, especially if you do not know

much about the new place. You might not know where to go or what to see. Plus, the guide will have more knowledge than you do. You might give a specific example of a tour that you have been on yourself.

If you prefer to explore a place on your own, you might say that a tour would limit you, because you would be told where to go. There might be a situation where you want to stay in one place for a longer time, but the tour would not allow this. In this case, you could also give a specific example of a time when you explored a place on your own and why this was good.

It is important to make sure that you state your opinion and develop your response with good examples and relevant details.

Your response should be intelligible, should demonstrate effective use of grammar and vocabulary, and should be well developed and coherent. Your response is scored using the Independent Speaking Rubric (see Appendix A).

3. To respond to this particular question, you should state the woman's opinion of the university's decision to give the position of Dean of Students to Professor Fox. In this case, the woman disagrees with the decision.

After stating that the woman disagrees with the decision, you should convey the two main reasons she gives for holding that opinion. You will need to connect information from the conversation to the reading in order for the response to be complete. The woman says that the first reason given for appointing Professor Fox—that she has strong organizational skills—is not valid. You should provide as her explanation either that some classes were cancelled because Professor Fox did not organize enough teaching assistants or that she missed

a philosophy course in Europe because Professor Fox did not sign her paperwork in time.

Your response should also convey the woman's second reason for not agreeing with the university's decision to make Professor Fox Dean of Students. The woman disagrees that Professor Fox works well with students. As support, she says that Professor Fox has an aggressive coaching style. She also gives an example of her friend who was criticized by Professor Fox when she was looking for emotional support. This shows that, in the woman's opinion, Professor Fox would not be a good Dean of Students.

As you need to discuss *both* of the woman's reasons for disagreeing with the university's decision, you should not include too much detail from the reading or concentrate too much on one of the reasons. Give yourself enough time to discuss both reasons.

Your response should be intelligible, should demonstrate effective use of grammar and vocabulary, and should be well developed and coherent. Your response is scored using the Integrated Speaking Rubric (see Appendix A).

4. To respond to this particular question you should first explain the idea of a critical period as it was presented in the reading. The critical period is a specific time period for many organisms. Organisms must receive external or environmental input during this critical period in order to develop normally. Do not spend too much time summarizing all of the content of the reading.

You should then use the examples given by the professor to explain critical periods. In the first example, the professor discusses a critical period that affects a physical attribute. Vision in kittens will not develop normally if they are not

exposed to light within the first four months of life. In the second example, the professor discusses a critical period affecting a behavior. Baby geese will adopt whatever large moving object they first see within the first two days of their lives as their parent. They will follow this "parent" even if it's a different species. That behavior cannot be changed even if a real goose reappears.

You do not need to repeat all of the details from the reading and the lecture, but instead integrate points from both to answer the question completely. For this question, you need to give yourself enough time to talk about both examples.

Your response should be intelligible, should demonstrate effective use of grammar and vocabulary, and should be well developed and coherent. Your response is scored using the Integrated Speaking Rubric (see Appendix A).

5. To respond to this particular question you should *briefly* describe the problem. In this case the problem is that the woman does not want to cook her own meals because the kitchen in the dorm is always a mess.

   Next, you need to choose *one* of the two solutions and explain why you think that solution is best. Note that you are not required to talk about both solutions. The two solutions in this conversation are: 1) put up a schedule so people can sign up to use the kitchen. Anyone who uses the kitchen must clean up, or 2) hire someone to clean the kitchen once a week. It does not matter which of the two proposed solutions you choose, since there is no "right" solution or "wrong" solution. You should choose the solution that you think is best and support your choice with reasons why you think it is best. The reasons you give can include information provided by the speakers as well as your own experiences.

For example, if you believe the first solution is preferable, you could say that it should be the students' responsibility to clean the kitchen. Cleaning the kitchen is important because it could lead to good habits, and eventually these students will be responsible for their own kitchens. Another way to discuss this is to talk about the disadvantage of the other solution. In this case you might say that hiring somebody else is not a good idea because it costs money, and students do not usually have a lot of money. They would be better off using this money to buy food for themselves.

If you believe the second solution is preferable, you might say that students don't really have enough time to clean. They are already very busy with their schoolwork, so cleaning is something that they should get somebody else to do. Also, somebody else might do a better job since many students don't have a lot of experience cleaning.

These are just examples of possible responses; remember, this type of question can be answered in many different ways.

Your response should be intelligible, should demonstrate effective use of grammar and vocabulary, and should be well developed and coherent. Your response is scored using the Integrated Speaking Rubric (see Appendix A).

6. This particular question requires you to summarize the contents of a lecture you hear. In your response, you should talk about exaggeration in advertising, including the examples of when it is legal to use exaggeration and when it is not legal to use exaggeration.

You should begin with a general statement about the lecture, such as that exaggeration in advertising has to be so extreme that nobody will believe it. If it isn't, this advertising may be illegal. You would then talk about the first example

that the professor gives. An advertiser that wanted to make the point that its vacuum cleaner is very light showed it in a television ad floating in the air. This kind of advertisement was legal because no one would really believe that a vacuum cleaner floated in the air.

You should then talk about the professor's second example. The professor says that if the company showed the vacuum cleaner cleaning a big dirty carpet in just a few seconds that is an exaggeration and would be unacceptable because someone might actually believe it. We can imagine someone buying the vacuum cleaner and being disappointed that it didn't work that well.

You should read the question carefully and respond with the appropriate information. This question clearly directs you to talk about a time when it is acceptable to use exaggeration and a time when it is not acceptable. You should budget your time so that you are able to talk about both examples.

Your response should be intelligible, should demonstrate effective use of grammar and vocabulary, and should be well developed and coherent. Your response is scored using the Integrated Speaking Rubric (see Appendix A).

Writing Section

1. What is important to understand from the lecture is that the professor disagrees with the advantages of buying franchises presented in the reading, namely that a franchise owner does not have to look for suppliers; that a franchise owner gets the benefit of advertising done by the parent company; and that franchises provide more security than other types of business.

   In your response, you should convey the reasons presented

by the professor for why buying a franchise is not the best way of becoming a business owner. A high-scoring response will include the following points made by the professor that cast doubt on the points made in the reading:

Point made in the reading	Counterpoint made in the lecture
Since franchising companies have already selected reliable suppliers for franchise owners to use, a new franchise owner does not run the risk of working with unreliable suppliers.	A franchise owner is forced to use the suppliers identified by the parent company. Such suppliers often charge too much for their goods and services. A franchise owner cannot use cheaper suppliers that may be available.
Franchise owners save money on advertising because they sell well-known brands and because they get the benefit of advertising paid for by the parent companies.	In fact, franchise owners have to pay a portion of their income to the parent company in return for advertising services. However, advertising by the parent company focuses on the brand and not on the owner's individual business. Owners would get greater benefit for less money if they did their own advertising.
Buying a franchise offers very good security. The failure rate of starting franchises is much lower than the failure rate of starting independent businesses.	There is in fact an option for starting business owners that is more secure than buying a franchise: buying an already-existing independent business. Independent businesses bought from previous owners have twice as much chance of

	success as new franchises.

Your response is scored using the Integrated Writing Rubric (see Appendix A). A response that receives a score of 5 clearly conveys all three of the main points in the table using accurate sentence structure and vocabulary.

2. To earn a top score, you should develop a multi-paragraph essay that responds to the issue of whether people learn things better from those at their own level—such as fellow students or coworkers—than from those at a higher level, such as teachers or supervisors. Typically an effective response will contain a minimum of 300 words.

One successful way to express agreement with the prompt is to explain that you can learn better from your fellow students or coworkers—at least those whom you enjoy being around—because when these people try to teach you something, it will be in a relaxed, friendly atmosphere with no pressure. You might go on to argue that if you're relaxed, you'll learn better.

A successful way to disagree with the prompt is to describe the advantage of learning from someone with expert knowledge and teaching ability; you may have had a teacher who is not only great at math, for example, but is also much more skilled and experienced at transmitting this knowledge to others than a classmate of yours might be, even if the classmate also has tremendous knowledge of the subject matter.

Keep in mind that there is no "correct" answer to this question. Either side of the issue can be supported with examples and reasons. It is important to make sure that you state your opinion and develop a response that explains your

opinion well. The development of your essay is judged by how effectively you support your opinion; a well-developed essay will contain clearly appropriate reasons, examples, and details that illustrate your opinion. Development is not evaluated simply in terms of how many words you write.

Your response should be well organized. A well-organized essay allows an evaluator to read from the beginning to the end of the essay without becoming confused. You should be sure not to just repeat the same information in different ways.

The quality and accuracy of the sentence structure and vocabulary you use to express your ideas is also very important.

Your response is scored using the Independent Writing Rubric (see Appendix A).

TOEFL iBT Test 5

READING

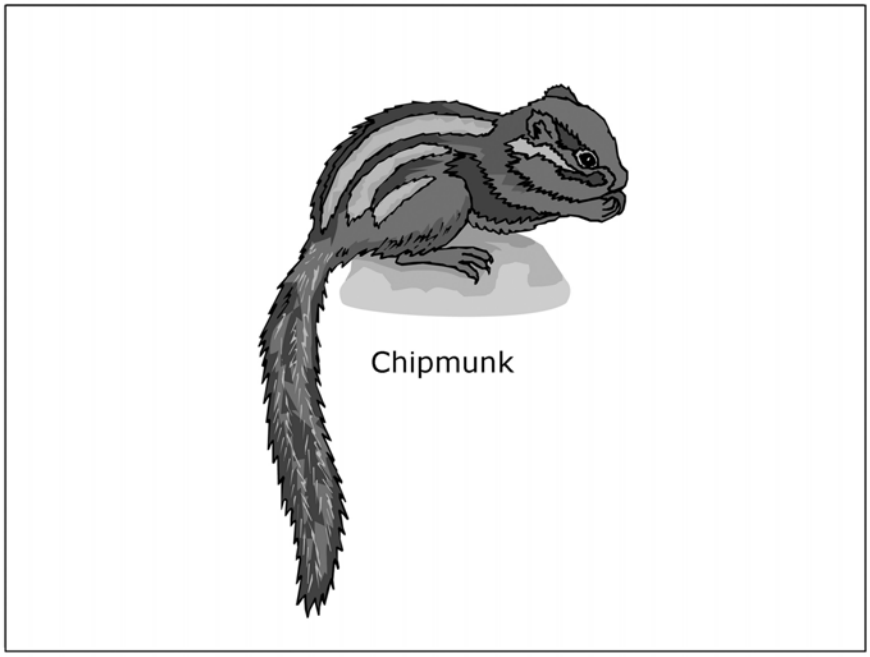
This section measures your ability to understand academic passages in English.

There are three passages in the section. Give yourself 20 minutes to read each passage and answer the questions about it. The entire section will take 60 minutes to complete.

You may look back at a passage when answering the questions. You can skip questions and go back to them later as long as there is time remaining.

Directions: Read the passage. Then answer the questions. Give yourself 20 minutes to complete this practice set.

HABITATS AND CHIPMUNK SPECIES



There are eight chipmunk species in the Sierra Nevada mountain range, and most of them look pretty much alike. But eight different species of chipmunks scurrying around a picnic area will not be found. Nowhere in the Sierra do all eight species occur together. Each species tends strongly to occupy a specific habitat type, within an elevational range, and the overlap among them is minimal.

The eight chipmunk species of the Sierra Nevada represent but a few of the 15 species found in western North America, yet the whole of eastern North America makes do with but one species: the Eastern chipmunk. Why are there so many very similar chipmunks in the West? The presence of tall mountains interspersed with vast areas of arid desert and grassland makes the West ecologically far different from the East. The West affords much more opportunity for chipmunk

populations to become geographically isolated from one another, a condition of species formation. Also, there are more extremes in western habitats. In the Sierra Nevada, high elevations are close to low elevations, at least in terms of mileage, but ecologically they are very different.

Most ecologists believe that ancient populations of chipmunks diverged genetically when isolated from one another by mountains and unfavorable ecological habitat. These scattered populations first evolved into races—adapted to the local ecological conditions—and then into species, reproductively isolated from one another. This period of evolution was relatively recent, as evidenced by the similar appearance of all the western chipmunk species.

Ecologists have studied the four chipmunk species that occur on the eastern slope of the Sierra and have learned just how these species interact while remaining separate, each occupying its own elevational zone. The sagebrush chipmunk is found at the lowest elevation, among the sagebrush. The yellow pine chipmunk is common in low to mid-elevations and open conifer forests, including piñon and ponderosa and Jeffrey pine forests. The lodgepole chipmunk is found at higher elevations, among the lodgepoles, firs, and high-elevation pines. The alpine chipmunk is higher still, venturing among the talus slopes, alpine meadows, and high-elevation pines and junipers. Obviously, the ranges of each species overlap. Why don’t sagebrush chipmunks move into the pine zones? Why don’t alpine chipmunks move to lower elevations and share the conifer forests with lodgepole chipmunks?

The answer, in one word, is aggression. Chipmunk species actively defend their ecological zones from encroachment by neighboring species. The yellow pine chipmunk is more aggressive than the sagebrush chipmunk, possibly because it is a bit larger. It successfully bullies its smaller evolutionary cousin, excluding it from the pine forests. Experiments have shown that the sagebrush chipmunk is physiologically able to live anywhere in the Sierra Nevada, from high alpine zones to the desert. The little creature is apparently restricted to the desert not because it is specialized to live only there but because

that is the only habitat where none of the other chipmunk species can live. The fact that sagebrush chipmunks tolerate very warm temperatures makes them, and only them, able to live where they do. The sagebrush chipmunk essentially occupies its habitat by default. In one study, ecologists established that yellow pine chipmunks actively exclude sagebrush chipmunks from pine forests; the ecologists simply trapped all the yellow pine chipmunks in a section of forest and moved them out. Sagebrush chipmunks immediately moved in, but yellow pine chipmunks did not enter sagebrush desert when sagebrush chipmunks were removed.

The most aggressive of the four eastern-slope species is the lodgepole chipmunk, a feisty rodent indeed. It actively prevents alpine chipmunks from moving downslope, and yellow pine chipmunks from moving upslope. There is logic behind the lodgepole's aggressive demeanor. It lives in the cool, shaded conifer forests, and of the four species, it is the least able to tolerate heat stress. It is, in other words, the species of the strictest habitat needs: it simply must be in those shaded forests. However, if it shared its habitat with alpine and yellow pine chipmunks, either or both of these species might outcompete it, taking most of the available food. Such a competition could effectively eliminate lodgepole chipmunks from the habitat. Lodgepoles survive only by virtue of their aggression.

Directions: Now answer the questions.

PARAGRAPH 1

There are eight chipmunk species in the Sierra Nevada mountain range, and most of them look pretty much alike. But eight different species of chipmunks scurrying around a picnic area will not be found. Nowhere in the Sierra do all eight species occur together. Each species tends strongly to occupy a specific habitat type, within an elevational range, and the overlap among them is minimal.

1. Why does the author mention a “picnic area” in paragraph 1?

   Ⓐ To identify a site where a variety of different species of chipmunks can be seen

   Ⓑ To support the point that each species of chipmunk inhabits a distinct location

   Ⓒ To emphasize the idea that all species of chipmunks have a similar appearance

   Ⓓ To provide an example of a location to which chipmunks are likely to scurry for food

PARAGRAPH 2

The eight chipmunk species of the Sierra Nevada represent but a few of the 15 species found in western North America, yet the whole of eastern North America makes do with but one species: the Eastern chipmunk. Why are there so many very similar chipmunks in the West? The presence of tall mountains interspersed with vast areas of arid desert and grassland makes the West ecologically far different from the East. The West affords much more opportunity for chipmunk populations to become geographically isolated from one another, a condition of species formation. Also, there are more extremes in western habitats. In the Sierra Nevada, high elevations are close to low elevations, at least in terms of mileage, but ecologically they are very different.

2. The phrase “interspersed with” in the passage is closest in meaning to

   Ⓐ distributed among

   Ⓑ covered by

   Ⓒ positioned above

   Ⓓ evolved from

3. In paragraph 2, the author indicates that a large variety of chipmunk species exist in western North America because of

   Ⓐ a large migration of chipmunks from eastern North America in an earlier period

   Ⓑ the inability of chipmunks to adapt to the high mountainous regions of eastern North America

   Ⓒ the ecological variety and extremes of the West that caused chipmunks to become geographically isolated

   Ⓓ the absence of large human populations that discouraged species formation among chipmunks in the East

PARAGRAPH 3

Most ecologists believe that ancient populations of chipmunks diverged genetically when isolated from one another by mountains and unfavorable ecological habitat. These scattered populations first evolved into races—adapted to the local ecological conditions—and then into species, reproductively isolated from one another. This period of evolution was relatively recent, as evidenced by the similar appearance of all the western chipmunk species.

4. The word “diverged” in the passage is closest in meaning to

   Ⓐ declined

   Ⓑ competed

   Ⓒ progressed

   Ⓓ separated

5. The phrase “one another” in the passage refers to

   Ⓐ populations

   Ⓑ races

Ⓒ ecological conditions

Ⓓ species

PARAGRAPH 4

Ecologists have studied the four chipmunk species that occur on the eastern slope of the Sierra and have learned just how these species interact while remaining separate, each occupying its own elevational zone. The sagebrush chipmunk is found at the lowest elevation, among the sagebrush. The yellow pine chipmunk is common in low to mid-elevations and open conifer forests, including piñon and ponderosa and Jeffrey pine forests. The lodgepole chipmunk is found at higher elevations, among the lodgepoles, firs, and high-elevation pines. The alpine chipmunk is higher still, venturing among the talus slopes, alpine meadows, and high-elevation pines and junipers. Obviously, the ranges of each species overlap. Why don't sagebrush chipmunks move into the pine zones? Why don't alpine chipmunks move to lower elevations and share the conifer forests with lodgepole chipmunks?

6. Which of the sentences below best expresses the essential information in the highlighted sentence in paragraph 4? Incorrect choices change the meaning in important ways or leave out essential information.

   Ⓐ Ecologists studied how the geographic characteristics of the eastern slope of the Sierra influenced the social development of chipmunks.

   Ⓑ Ecologists learned exactly how chipmunk species separated from each other on the eastern slope of the Sierra relate to one another.

   Ⓒ Ecologists discovered that chipmunks of the eastern slope of the Sierra invade and occupy higher elevational zones when threatened by another species.

Ⓓ Ecologists studied how individual chipmunks of the eastern slope of the Sierra avoid interacting with others of their species.

7. Where does paragraph 4 indicate that the yellow pine chipmunk can be found in relationship to the other species of the eastern slope of the Sierra?

Ⓐ Below the sagebrush chipmunk

Ⓑ Above the alpine chipmunk

Ⓒ At the same elevation as the sagebrush chipmunk

Ⓓ Below the lodgepole chipmunk

PARAGRAPH 5

The answer, in one word, is aggression. Chipmunk species actively defend their ecological zones from encroachment by neighboring species. The yellow pine chipmunk is more aggressive than the sagebrush chipmunk, possibly because it is a bit larger. It successfully bullies its smaller evolutionary cousin, excluding it from the pine forests. Experiments have shown that the sagebrush chipmunk is physiologically able to live anywhere in the Sierra Nevada, from high alpine zones to the desert. The little creature is apparently restricted to the desert not because it is specialized to live only there but because that is the only habitat where none of the other chipmunk species can live. The fact that sagebrush chipmunks tolerate very warm temperatures makes them, and only them, able to live where they do. The sagebrush chipmunk essentially occupies its habitat by default. In one study, ecologists established that yellow pine chipmunks actively exclude sagebrush chipmunks from pine forests; the ecologists simply trapped all the yellow pine chipmunks in a section of forest and moved them out. Sagebrush chipmunks immediately moved in, but yellow pine chipmunks did not enter sagebrush desert when sagebrush chipmunks were removed.

8. The word “encroachment” in the passage is closest in meaning to

   Ⓐ complete destruction

   Ⓑ gradual invasion

   Ⓒ excessive development

   Ⓓ substitution

9. Paragraph 5 mentions all of the following as true of the relationship of sagebrush chipmunks to their habitats EXCEPT:

   Ⓐ Sagebrush chipmunks are able to survive in any habitat of the Sierra Nevada.

   Ⓑ Sagebrush chipmunks occupy their habitat because of the absence of competition from other chipmunks.

   Ⓒ Sagebrush chipmunks are better able to survive in hot temperatures than other species of chipmunks.

   Ⓓ Sagebrush chipmunks spend the warm season at the higher elevations of the alpine zone.

10. Which of the following statements is supported by the results of the experiment described at the end of paragraph 5?

    Ⓐ The habitat of the yellow pine chipmunk is a desirable one to other species, but the habitat of the sagebrush chipmunk is not.

    Ⓑ It was more difficult to remove sagebrush chipmunks from their habitat than it was to remove yellow pine chipmunks from theirs.

    Ⓒ Yellow pine chipmunks and sagebrush chipmunks require the same environmental conditions in their habitats.

    Ⓓ The temperature of the habitat is not an important factor to either the yellow pine chipmunk or the sagebrush chipmunk.

PARAGRAPH 6

The most aggressive of the four eastern-slope species is the lodgepole chipmunk, a feisty rodent indeed. It actively prevents alpine chipmunks from moving downslope, and yellow pine chipmunks from moving upslope. There is logic behind the lodgepole's aggressive demeanor. It lives in the cool, shaded conifer forests, and of the four species, it is the least able to tolerate heat stress. It is, in other words, the species of the strictest habitat needs: it simply must be in those shaded forests. However, if it shared its habitat with alpine and yellow pine chipmunks, either or both of these species might outcompete it, taking most of the available food. Such a competition could effectively eliminate lodgepole chipmunks from the habitat. Lodgepoles survive only by virtue of their aggression.

11. According to paragraph 6, why is the lodgepole chipmunk so protective of its habitat from competing chipmunks?

Ⓐ It has specialized food requirements.

Ⓑ It cannot tolerate cold temperatures well.

Ⓒ It requires the shade provided by forest trees.

Ⓓ It prefers to be able to move between areas that are downslope and upslope.

12. The phrase "by virtue of" in the passage is closest in meaning to

Ⓐ in spite of

Ⓑ because of

Ⓒ unconcerned about

Ⓓ with attention to

PARAGRAPH 4

Ecologists have studied the four chipmunk species that occur on the eastern slope of the Sierra and have learned just how these species interact while remaining separate, each occupying its own elevational zone. The sagebrush chipmunk is found at the lowest elevation, among the sagebrush. The yellow pine chipmunk is common in low to mid-elevations and open conifer forests, including piñon and ponderosa and Jeffrey pine forests. The lodgepole chipmunk is found at higher elevations, among the lodgepoles, firs, and high-elevation pines. The alpine chipmunk is higher still, venturing among the talus slopes, alpine meadows, and high-elevation pines and junipers. ■ Obviously, the ranges of each species overlap. ■ Why don't sagebrush chipmunks move into the pine zones? ■ Why don't alpine chipmunks move to lower elevations and share the conifer forests with lodgepole chipmunks? ■

13. Look at the four squares [■] that indicate where the following sentence can be added to the passage.

Yet each species remains within a fairly well-defined elevational zone.

Where would the sentence best fit?

Ⓐ Ecologists have studied the four chipmunk species that occur on the eastern slope of the Sierra and have learned just how these species interact while remaining separate, each occupying its own elevational zone. The sagebrush chipmunk is found at the lowest elevation, among the sagebrush. The yellow pine chipmunk is common in low to mid-elevations and open conifer forests, including piñon and ponderosa and Jeffrey pine forests. The lodgepole chipmunk is found at higher elevations, among the lodgepoles, firs, and high-elevation pines. The alpine chipmunk is higher still, venturing among the talus slopes, alpine meadows, and high-elevation pines and junipers. **Yet each species remains within a fairly well-defined elevational zone.** Obviously, the ranges of each

species overlap. ■ Why don't sagebrush chipmunks move into the pine zones? ■ Why don't alpine chipmunks move to lower elevations and share the conifer forests with lodgepole chipmunks? ■

Ⓑ Ecologists have studied the four chipmunk species that occur on the eastern slope of the Sierra and have learned just how these species interact while remaining separate, each occupying its own elevational zone. The sagebrush chipmunk is found at the lowest elevation, among the sagebrush. The yellow pine chipmunk is common in low to mid-elevations and open conifer forests, including piñon and ponderosa and Jeffrey pine forests. The lodgepole chipmunk is found at higher elevations, among the lodgepoles, firs, and high-elevation pines. The alpine chipmunk is higher still, venturing among the talus slopes, alpine meadows, and high-elevation pines and junipers. ■ Obviously, the ranges of each species overlap. **Yet each species remains within a fairly well-defined elevational zone.** Why don't sagebrush chipmunks move into the pine zones? ■ Why don't alpine chipmunks move to lower elevations and share the conifer forests with lodgepole chipmunks? ■

Ⓒ Ecologists have studied the four chipmunk species that occur on the eastern slope of the Sierra and have learned just how these species interact while remaining separate, each occupying its own elevational zone. The sagebrush chipmunk is found at the lowest elevation, among the sagebrush. The yellow pine chipmunk is common in low to mid-elevations and open conifer forests, including piñon and ponderosa and Jeffrey pine forests. The lodgepole chipmunk is found at higher elevations, among the lodgepoles, firs, and high-elevation pines. The alpine chipmunk is higher still, venturing among the talus slopes, alpine meadows, and high-elevation pines and junipers. ■ Obviously, the ranges of each species

overlap. ■ Why don't sagebrush chipmunks move into the pine zones? **Yet each species remains within a fairly well-defined elevational zone.** Why don't alpine chipmunks move to lower elevations and share the conifer forests with lodgepole chipmunks? ■

Ⓓ Ecologists have studied the four chipmunk species that occur on the eastern slope of the Sierra and have learned just how these species interact while remaining separate, each occupying its own elevational zone. The sagebrush chipmunk is found at the lowest elevation, among the sagebrush. The yellow pine chipmunk is common in low to mid-elevations and open conifer forests, including piñon and ponderosa and Jeffrey pine forests. The lodgepole chipmunk is found at higher elevations, among the lodgepoles, firs, and high-elevation pines. The alpine chipmunk is higher still, venturing among the talus slopes, alpine meadows, and high-elevation pines and junipers. ■ Obviously, the ranges of each species overlap. ■ Why don't sagebrush chipmunks move into the pine zones? ■ Why don't alpine chipmunks move to lower elevations and share the conifer forests with lodgepole chipmunks? **Yet each species remains within a fairly well-defined elevational zone.**

14. **Directions**: An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the THREE answer choices that express the most important ideas in the passage. Some sentences do not belong in the summary because they express ideas that are not presented in the passage or are minor ideas in the passage.

Write your answer choices in the spaces where they belong. You can either write the letter of your answer choice or you can copy the sentence.

Answer Choices

1. A Ecological variation of the Sierra Nevada resulted in the differentiation of chipmunk species.
2. B Only one species of chipmunk inhabits eastern North America.
3. C Although chipmunk species of the Sierra Nevada have the ability to live at various elevations, each species inhabits a specifically restricted one.
4. D Chipmunks aggressively defend their habitats from invasion by other species of chipmunks.
5. E Experimental studies indicate that sagebrush chipmunks live in the desert because of their physiological requirements.
6. F The most aggressive of the chipmunk species is the lodgepole chipmunk.

Directions: Read the passage. Then answer the questions. Give yourself 20 minutes to complete this practice set.

CETACEAN INTELLIGENCE

We often hear that whales, dolphins, and porpoises are as intelligent as humans, maybe even more so. Are they really that smart? There is no question that cetaceans are among the most intelligent of animals. Dolphins, killer whales, and pilot whales in captivity quickly learn tricks. The military has trained bottlenose dolphins to find bombs and missile heads and to work as underwater

spies.

This type of learning, however, is called conditioning. The animal simply learns that when it performs a particular behavior, it gets a reward, usually a fish. Many animals, including rats, birds, and even invertebrates, can be conditioned to perform tricks. We certainly don't think of these animals as our mental rivals. Unlike most other animals, however, dolphins quickly learn by observations and may spontaneously imitate human activities. One tame dolphin watched a diver cleaning an underwater viewing window, seized a feather in its beak, and began imitating the diver—complete with sound effects! Dolphins have also been seen imitating seals, turtles, and even water-skiers.

Given the seeming intelligence of cetaceans, people are always tempted to compare them with humans and other animals. Studies on discrimination and problem-solving skills in the bottlenose dolphin, for instance, have concluded that its intelligence lies "somewhere between that of a dog and a chimpanzee." Such comparisons are unfair. It is important to realize that intelligence is a very human concept and that we evaluate it in human terms. After all, not many people would consider themselves stupid because they couldn't locate and identify a fish by its echo. Why should we judge cetaceans by their ability to solve human problems?

Both humans and cetaceans have large brains with an expanded and distinctively folded surface, the cortex. The cortex is the dominant association center of the brain, where abilities such as memory and sensory perception are centered. Cetaceans have larger brains than ours, but the ratio of brain to body weight is higher in humans. Again, direct comparisons are misleading. In cetaceans it is mainly the portions of the brain associated with hearing and the processing of sound information that are expanded. The enlarged portions of our brain deal largely with vision and hand-eye coordination. Cetaceans and humans almost certainly perceive the world in very different ways. Their world is largely one of sounds, ours one of sights.

Contrary to what is depicted in movies and on television, the notion of "talking" to dolphins is also misleading. Although they produce a

rich repertoire of complex sounds, they lack vocal cords and their brains probably process sound differently from ours. Bottlenose dolphins have been trained to make sounds through the blowhole that sound something like human sounds, but this is a far cry from human speech. By the same token, humans cannot make whale sounds. We will probably never be able to carry on an unaided conversation with cetaceans.

As in chimpanzees, captive bottlenose dolphins have been taught American Sign Language. These dolphins have learned to communicate with trainers who use sign language to ask simple questions. Dolphins answer back by pushing a “yes” or “no” paddle. They have even been known to give spontaneous responses not taught by the trainers. Evidence also indicates that these dolphins can distinguish between commands that differ from each other only by their word order, a truly remarkable achievement. Nevertheless, dolphins do not seem to have a real language like ours. Unlike humans, dolphins probably cannot convey very complex messages.

Observations of cetaceans in the wild have provided some insights on their learning abilities. Several bottlenose dolphins off western Australia, for instance, have been observed carrying large cone-shaped sponges over their beaks. They supposedly use the sponges for protection against stingrays and other hazards on the bottom as they search for fish to eat. This is the first record of the use of tools among wild cetaceans.

Instead of “intelligence,” some people prefer to speak of “awareness.” In any case, cetaceans probably have a very different awareness and perception of their environment than do humans. Maybe one day we will come to understand cetaceans on their terms instead of ours, and perhaps we will discover a mental sophistication rivaling our own.

Directions: Now answer the questions.

PARAGRAPH 1

We often hear that whales, dolphins, and porpoises are as intelligent as humans, maybe even more so. Are they really that smart? There is no question that cetaceans are among the most intelligent of animals. Dolphins, killer whales, and pilot whales in captivity quickly learn tricks. The military has trained bottlenose dolphins to find bombs and missile heads and to work as underwater spies.

5. The author asks the question "Are they really that smart?" for which of the following reasons?

   Ⓐ To question the notion that humans are the most intelligent of animals

   Ⓑ To introduce the discussion of intelligence that follows

   Ⓒ To explain why dolphins, killer whales, and pilot whales can learn tricks

   Ⓓ To emphasize the ways that dolphins can help the military

PARAGRAPH 2

This type of learning, however, is called conditioning. The animal simply learns that when it performs a particular behavior, it gets a reward, usually a fish. Many animals, including rats, birds, and even invertebrates, can be conditioned to perform tricks. We certainly don't think of these animals as our mental rivals. Unlike most other animals, however, dolphins quickly learn by observations and may spontaneously imitate human activities. One tame dolphin watched a diver cleaning an underwater viewing window, seized a feather in its beak, and began imitating the diver—complete with sound effects! Dolphins have also been seen imitating seals, turtles, and even water-skiers.

16. According to the passage, which of the following animals is most likely to learn by watching another animal perform an activity?

Ⓐ Rats

Ⓑ Birds

Ⓒ Invertebrates

Ⓓ Dolphins

PARAGRAPH 3

Given the seeming intelligence of cetaceans, people are always tempted to compare them with humans and other animals. Studies on discrimination and problem-solving skills in the bottlenose dolphin, for instance, have concluded that its intelligence lies "somewhere between that of a dog and a chimpanzee." Such comparisons are unfair. It is important to realize that intelligence is a very human concept and that we evaluate it in human terms. After all, not many people would consider themselves stupid because they couldn't locate and identify a fish by its echo. Why should we judge cetaceans by their ability to solve human problems?

17. The word "tempted" in the passage is closest in meaning to

Ⓐ conditioned

Ⓑ reluctant

Ⓒ inclined

Ⓓ invited

18. According to the passage, why are the studies that conclude that dolphin intelligence is "'somewhere between that of a dog and a chimpanzee'" not correct?

Ⓐ The human method of drawing comparisons is not relevant to

animal intelligence.

Ⓑ Dolphins have actually been shown to be much more intelligent than chimpanzees.

Ⓒ The studies were not conducted according to standard research methods.

Ⓓ Dolphins do not typically demonstrate conditioned responses for humans to observe.

PARAGRAPH 4

Both humans and cetaceans have large brains with an expanded and distinctively folded surface, the cortex. The cortex is the dominant association center of the brain, where abilities such as memory and sensory perception are centered. Cetaceans have larger brains than ours, but the ratio of brain to body weight is higher in humans. Again, direct comparisons are misleading. In cetaceans it is mainly the portions of the brain associated with hearing and the processing of sound information that are expanded. The enlarged portions of our brain deal largely with vision and hand-eye coordination. Cetaceans and humans almost certainly perceive the world in very different ways. Their world is largely one of sounds, ours one of sights.

19. The word “dominant” in the passage is closest in meaning to

Ⓐ local

Ⓑ natural

Ⓒ chief

Ⓓ specific

PARAGRAPH 6

As in chimpanzees, captive bottlenose dolphins have been taught

American Sign Language. These dolphins have learned to communicate with trainers who use sign language to ask simple questions. Dolphins answer back by pushing a “yes” or “no” paddle. They have even been known to give spontaneous responses not taught by the trainers. Evidence also indicates that these dolphins can distinguish between commands that differ from each other only by their word order, a truly remarkable achievement. Nevertheless, dolphins do not seem to have a real language like ours. Unlike humans, dolphins probably cannot convey very complex messages.

20. The word “spontaneous” in the passage is closest in meaning to

Ⓐ sophisticated

Ⓑ sensible

Ⓒ appropriate

Ⓓ unprompted

PARAGRAPH 7

Observations of cetaceans in the wild have provided some insights on their learning abilities. Several bottlenose dolphins off western Australia, for instance, have been observed carrying large cone-shaped sponges over their beaks. They supposedly use the sponges for protection against stingrays and other hazards on the bottom as they search for fish to eat. This is the first record of the use of tools among wild cetaceans.

21. The word “insights” in the passage is closest in meaning to

Ⓐ examples

Ⓑ understanding

Ⓒ directions

Ⓓ discussion

22. Scientific observations show that cetaceans are able to do all of the following EXCEPT

Ⓐ use natural objects as tools for self-protection

Ⓑ produce complex sounds through their blowholes

Ⓒ answer spoken questions

Ⓓ distinguish between very similar spoken sentences

23. The word “hazards” in the passage is closest in meaning to

Ⓐ objects

Ⓑ dangers

Ⓒ species

Ⓓ debris

PARAGRAPH 8

Instead of “intelligence,” some people prefer to speak of “awareness.” In any case, cetaceans probably have a very different awareness and perception of their environment than do humans. Maybe one day we will come to understand cetaceans on their terms instead of ours, and perhaps we will discover a mental sophistication rivaling our own.

24. What does the author conclude about the intelligence of cetaceans?

Ⓐ It is not appropriate to judge cetacean intelligence in human terms.

Ⓑ Cetaceans probably possess a mental sophistication that is as complex as that of humans.

Ⓒ Although cetaceans may appear to be intelligent, they have fewer problem-solving skills than most animals.

Ⓓ Their ability to learn American Sign Language indicates that

cetaceans have a high level of intelligence.

PARAGRAPH 2

This type of learning, however, is called conditioning. ■ The animal simply learns that when it performs a particular behavior, it gets a reward, usually a fish. ■ Many animals, including rats, birds, and even invertebrates, can be conditioned to perform tricks. ■ We certainly don't think of these animals as our mental rivals. ■ Unlike most other animals, however, dolphins quickly learn by observations and may spontaneously imitate human activities. One tame dolphin watched a diver cleaning an underwater viewing window, seized a feather in its beak, and began imitating the diver—complete with sound effects! Dolphins have also been seen imitating seals, turtles, and even water-skiers.

25. Look at the four squares [■] that indicate where the following sentence can be added to the passage.

This reward is merely one possible type of positive reinforcement that leads to more frequent repetition of the behavior in the future.

Where would the sentence best fit?

Ⓐ This type of learning, however, is called conditioning. **This reward is merely one possible type of positive reinforcement that leads to more frequent repetition of the behavior in the future.** The animal simply learns that when it performs a particular behavior, it gets a reward, usually a fish. ■ Many animals, including rats, birds, and even invertebrates, can be conditioned to perform tricks. ■ We certainly don't think of these animals as our mental rivals. ■ Unlike most other animals, however, dolphins quickly learn by observations and may spontaneously imitate human activities.

One tame dolphin watched a diver cleaning an underwater viewing window, seized a feather in its beak, and began imitating the diver—complete with sound effects! Dolphins have also been seen imitating seals, turtles, and even water-skiers.

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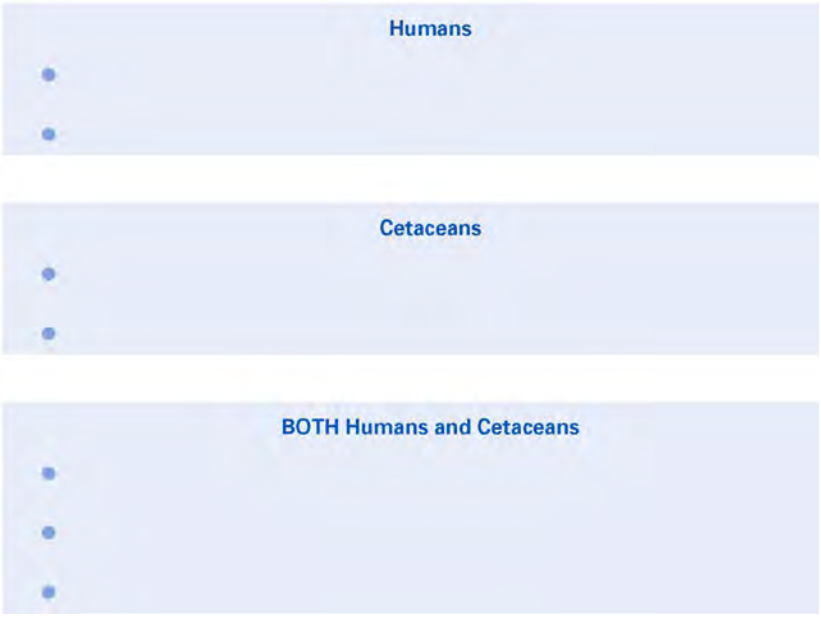
26. **Directions**: Select the appropriate phrases from the answer choices below and match them to the type of animal to which they relate. ONE of the answer choices will NOT be used.

Write your answer choices in the spaces where they belong. You can either write the letter of your answer choice or you can copy the sentence.

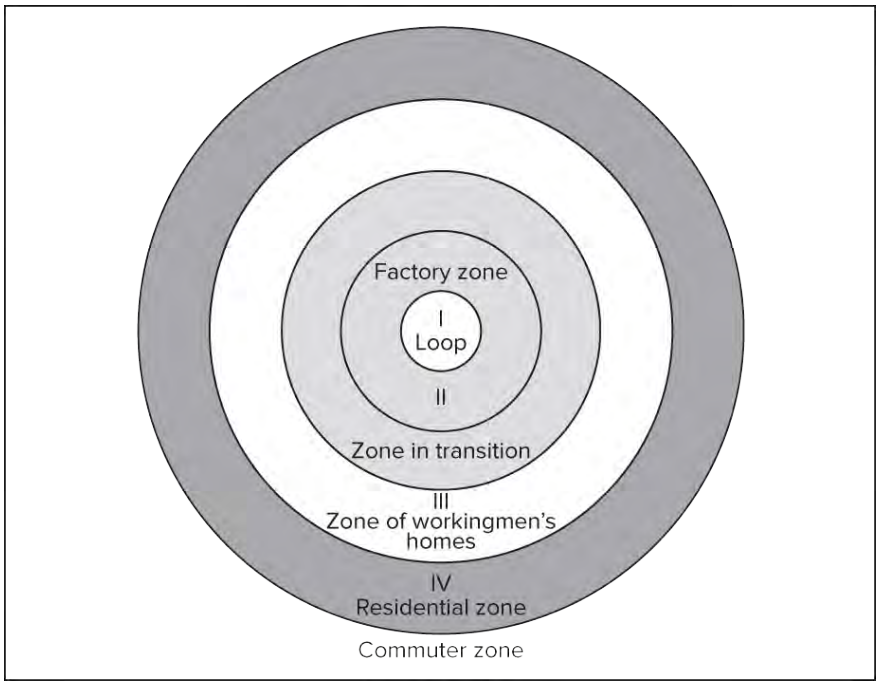


Answer Choices

1. A The ability to converse unaided with other species
2. B A brain with a cortex
3. C A set of vocal cords
4. D The ability to use tools
5. E The ability to locate objects by using echo
6. F An enlarged portion of the brain for processing sound
7. G An enlarged portion of the brain for processing vision
8. H The ability to learn by observation

Directions: Read the passage. Then answer the questions. Give yourself 20 minutes to complete this practice set.

A MODEL OF URBAN EXPANSION



In the early twentieth century, the science of sociology found supporters in the United States and Canada partly because the cities there were growing so rapidly. It often appeared that North American cities would be unable to absorb all the newcomers arriving in such large numbers. Presociological thinkers like Frederick Law Olmsted, the founder of the movement to build parks and recreation areas in cities, and Jacob Riis, an advocate of slum reform, urged the nation's leaders to invest in improving the urban environment, building parks and beaches, and making better housing available to all. These reform efforts were greatly aided by sociologists who conducted empirical research on the social conditions in cities. In the early twentieth century, many sociologists lived in cities like Chicago that were characterized by rapid population growth and serious social problems. It seemed logical to use empirical research to construct theories about how cities grow and change in response to major social forces as well as more controlled urban planning.

The founders of the Chicago school of sociology, Robert Park and Ernest Burgess, attempted to develop a dynamic model of the city, one that would account not only for the expansion of cities in terms of population and territory but also for the patterns of settlement and land

use within cities. They identified several factors that influence the physical form of cities. As Park stated, among them are “transportation and communication, tramways and telephones, newspapers and advertising, steel construction and elevators—all things, in fact, which tend to bring about at once a greater mobility and a greater concentration of the urban populations.”

Park and Burgess based their model of urban growth on the concept of “natural areas”—that is, areas such as occupational suburbs or residential enclaves in which the population is relatively homogeneous and land is used in similar ways without deliberate planning. Park and Burgess saw urban expansion as occurring through a series of “invasions” of successive zones or areas surrounding the center of the city. For example, people from rural areas and other societies “invaded” areas where housing was inexpensive. Those areas tended to be close to the places where they worked. In turn, people who could afford better housing and the cost of commuting “invaded” areas farther from the business district.

Park and Burgess’s model has come to be known as the “concentric-zone model” (represented by the figure). Because the model was originally based on studies of Chicago, its center is labeled “Loop,” the term commonly applied to that city’s central commercial zone. Surrounding the central zone is a “zone in transition,” an area that is being invaded by business and light manufacturing. The third zone is inhabited by workers who do not want to live in the factory or business district but at the same time need to live reasonably close to where they work. The fourth or residential zone consists of upscale apartment buildings and single-family homes. And the outermost ring, outside the city limits, is the suburban or commuters’ zone; its residents live within a 30- to 60-minute ride of the central business district.

Studies by Park, Burgess, and other Chicago-school sociologists showed how new groups of immigrants tended to be concentrated in separate areas within inner-city zones, where they sometimes experienced tension with other ethnic groups that had arrived earlier. Over time, however, each group was able to adjust to life in the city

and to find a place for itself in the urban economy. Eventually many of the immigrants moved to unsegregated areas in outer zones; the areas they left behind were promptly occupied by new waves of immigrants.

The Park and Burgess model of growth in zones and natural areas of the city can still be used to describe patterns of growth in cities that were built around a central business district and that continue to attract large numbers of immigrants. But this model is biased toward the commercial and industrial cities of North America, which have tended to form around business centers rather than around palaces or cathedrals, as is often the case in some other parts of the world. Moreover, it fails to account for other patterns of urbanization, such as the rapid urbanization that occurs along commercial transportation corridors and the rise of nearby satellite cities.

Directions: Now answer the questions.

PARAGRAPH 1

In the early twentieth century, the science of sociology found supporters in the United States and Canada partly because the cities there were growing so rapidly. It often appeared that North American cities would be unable to absorb all the newcomers arriving in such large numbers. Presociological thinkers like Frederick Law Olmsted, the founder of the movement to build parks and recreation areas in cities, and Jacob Riis, an advocate of slum reform, urged the nation's leaders to invest in improving the urban environment, building parks and beaches, and making better housing available to all. These reform efforts were greatly aided by sociologists who conducted empirical research on the social conditions in cities. In the early twentieth century, many sociologists lived in cities like Chicago that were characterized by rapid population growth and serious social problems. It seemed logical to use empirical research to construct theories about

how cities grow and change in response to major social forces as well as more controlled urban planning.

27. Which of the following can be inferred from paragraph 1 about what Olmsted and Riis had in common?

Ⓐ Both constructed theories based on empirical research on cities.

Ⓑ Both were among a large number of newcomers to North American cities.

Ⓒ Both wanted to improve the conditions of life in cities.

Ⓓ Both hoped to reduce the rapid growth of large cities.

28. Which of the following best states the relationship that Olmsted and Riis had to the study of sociology?

Ⓐ Their goals were supported by the research conducted later by sociologists.

Ⓑ Their approach led them to oppose empirical sociological studies.

Ⓒ They had difficulty establishing that their work was as important as sociological research.

Ⓓ They used evidence from sociological research to urge national leaders to invest in urban development.

PARAGRAPH 2

The founders of the Chicago school of sociology, Robert Park and Ernest Burgess, attempted to develop a dynamic model of the city, one that would account not only for the expansion of cities in terms of population and territory but also for the patterns of settlement and land use within cities. They identified several factors that influence the physical form of cities. As Park stated, among them are “transportation and communication, tramways and telephones, newspapers and advertising, steel construction and elevators—all things, in fact, which

tend to bring about at once a greater mobility and a greater concentration of the urban populations."

29. Which of the sentences below best expresses the essential information in the highlighted sentence in paragraph 2? Incorrect choices change the meaning in important ways or leave out essential information.

Ⓐ The Chicago school of sociology founded by Park and Burgess attempted to help the population of growing cities protect the land around them.

Ⓑ The model that Park and Burgess created was intended to explain both why the population and area of a city like Chicago grew and in what way urban land was used or settled.

Ⓒ The founders of the Chicago school of sociology wanted to make Chicago a dynamic model for how other cities should use and settle their land.

Ⓓ Park and Burgess were concerned that cities like Chicago should follow a model of good land use as the population grew and settled new areas.

30. The author includes the statement by Robert Park in paragraph 2 in order to

Ⓐ establish the specific topics about which Park and Burgess may have disagreed

Ⓑ identify the aspects of Chicago's development that required careful planning

Ⓒ specify some of the factors that contributed to the pattern of development of cities

Ⓓ compare the definitions given by Park and Burgess for the physical form of cities

PARAGRAPH 3

Park and Burgess based their model of urban growth on the concept of “natural areas”—that is, areas such as occupational suburbs or residential enclaves in which the population is relatively homogeneous and land is used in similar ways without deliberate planning. Park and Burgess saw urban expansion as occurring through a series of “invasions” of successive zones or areas surrounding the center of the city. For example, people from rural areas and other societies “invaded” areas where housing was inexpensive. Those areas tended to be close to the places where they worked. In turn, people who could afford better housing and the cost of commuting “invaded” areas farther from the business district.

31. Paragraph 3 indicates that all of the following are true of “natural areas” as conceived by Park and Burgess EXCEPT:

Ⓐ Use of the land in natural areas follows a consistent pattern but is generally unplanned.

Ⓑ People living in natural areas tend to have much in common.

Ⓒ Natural areas are usually protected from “invasion” by people in other areas.

Ⓓ Natural areas are an important basic component of the model Park and Burgess developed.

PARAGRAPH 4

Park and Burgess’s model has come to be known as the “concentric-zone model” (represented by the figure). Because the model was originally based on studies of Chicago, its center is labeled “Loop,” the term commonly applied to that city’s central commercial zone. Surrounding the central zone is a “zone in transition,” an area that is being invaded by business and light manufacturing. The third

zone is inhabited by workers who do not want to live in the factory or business district but at the same time need to live reasonably close to where they work. The fourth or residential zone consists of upscale apartment buildings and single-family homes. And the outermost ring, outside the city limits, is the suburban or commuters' zone; its residents live within a 30- to 60-minute ride of the central business district.

32. According to paragraph 4, why is the term "Loop" used in the concentric-zone model?

Ⓐ It indicates the many connections between each of the zones in the model.

Ⓑ It indicates that zones are often in transition and frequently changing.

Ⓒ It reflects the fact that the model was created with the city of Chicago in mind.

Ⓓ It emphasizes the fact that populations often returned to zones in which they used to live.

33. Which of the following can be inferred from paragraph 4 about the third zone?

Ⓐ It is the most expensive area in which to live.

Ⓑ It does not have factories and businesses.

Ⓒ People who live there travel long distances to work.

Ⓓ Most of the residents there work and live in the same zone.

34. The word "outermost" in the passage is closest in meaning to

Ⓐ most visible

Ⓑ best protected

Ⓒ farthest away

Ⓓ wealthiest

PARAGRAPH 5

Studies by Park, Burgess, and other Chicago-school sociologists showed how new groups of immigrants tended to be concentrated in separate areas within inner-city zones, where they sometimes experienced tension with other ethnic groups that had arrived earlier. Over time, however, each group was able to adjust to life in the city and to find a place for itself in the urban economy. Eventually many of the immigrants moved to unsegregated areas in outer zones; the areas they left behind were promptly occupied by new waves of immigrants.

35. The word “they” in the passage refers
    - Ⓐ Chicago-school sociologists
    - Ⓑ new groups of immigrants
    - Ⓒ separate areas
    - Ⓓ inner-city zones
36. The word “concentrated” in the passage is closest in meaning to
    - Ⓐ divided
    - Ⓑ reduced
    - Ⓒ interested
    - Ⓓ gathered
37. The word “promptly” in the passage is closest in meaning to
    - Ⓐ quickly
    - Ⓑ usually
    - Ⓒ eventually
    - Ⓓ easily

PARAGRAPH 6

The Park and Burgess model of growth in zones and natural areas of the city can still be used to describe patterns of growth in cities that were built around a central business district and that continue to attract large numbers of immigrants. But this model is biased toward the commercial and industrial cities of North America, which have tended to form around business centers rather than around palaces or cathedrals, as is often the case in some other parts of the world. Moreover, it fails to account for other patterns of urbanization, such as the rapid urbanization that occurs along commercial transportation corridors and the rise of nearby satellite cities.

38. Paragraph 6 indicates which of the following about the application of the Park and Burgess model to modern North American cities?

Ⓐ It is especially useful for those cities that have been used as models for international development.

Ⓑ It remains useful in explaining the development of some urban areas but not all cities.

Ⓒ It can be applied equally well to cities with commercial centers and those with palaces and cathedrals at their center.

Ⓓ It is less applicable to modern cities because of changes in patterns of immigration.

PARAGRAPHS 5 & 6

Studies by Park, Burgess, and other Chicago-school sociologists showed how new groups of immigrants tended to be concentrated in separate areas within inner-city zones, where they sometimes experienced tension with other ethnic groups that had arrived earlier. Over time, however, each group was able to adjust to life in the city and to find a place for itself in the urban economy. ■ Eventually many

of the immigrants moved to unsegregated areas in outer zones; the areas they left behind were promptly occupied by new waves of immigrants.

The Park and Burgess model of growth in zones and natural areas of the city can still be used to describe patterns of growth in cities that were built around a central business district and that continue to attract large numbers of immigrants. ■ But this model is biased toward the commercial and industrial cities of North America, which have tended to form around business centers rather than around palaces or cathedrals, as is often the case in some other parts of the world. ■ Moreover, it fails to account for other patterns of urbanization, such as the rapid urbanization that occurs along commercial transportation corridors and the rise of nearby satellite cities. ■

39. Look at the four squares [■] that indicate where the following sentence can be added to the passage.

Typical of this kind of urban growth is the steel-producing center of Gary, Indiana, outside of Chicago, which developed because massive heavy industry could not be located within the major urban center itself.

Where would the sentence best fit?

Ⓐ Studies by Park, Burgess, and other Chicago-school sociologists showed how new groups of immigrants tended to be concentrated in separate areas within inner-city zones, where they sometimes experienced tension with other ethnic groups that had arrived earlier. Over time, however, each group was able to adjust to life in the city and to find a place for itself in the urban economy. **Typical of this kind of urban growth is the steel-producing center of Gary, Indiana, outside of Chicago, which developed because massive heavy industry could not be located within the major urban center itself.** Eventually many of the immigrants moved to unsegregated areas in outer zones; the areas they

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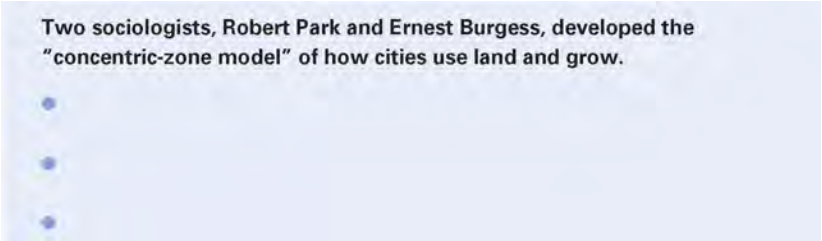
10. **Directions**: An introductory sentence for a brief summary of the passage is provided here. Complete the summary by selecting the THREE answer choices that express the most important ideas in the passage. Some sentences do not belong in the summary because they express ideas that are not presented in the passage or are minor ideas in the passage.

Write your answer choices in the spaces where they belong. You can either write the letter of your answer choice or you can copy

the sentence.



Answer Choices

1. A The model was developed to explain how the city of Chicago was developing around centrally located transportation and communication systems.
2. B The model arose out of concern for the quality of life in the rapidly growing cities of early twentieth-century America.
3. C The founders of the model did not believe in formal city planning and instead advocated growth through the expansion of so-called "natural areas."
4. D According to the model, a group new to the city tends to live together near the center and over time moves to outer areas that are more diverse ethnically and occupationally.
5. E The model is applicable to cities that grow by attracting large numbers of workers to centrally located businesses.
6. F The model predicts that eventually the inner city becomes so crowded that its residents move to new satellite cities outside the city limits.

LISTENING

This section measures your ability to understand conversations and lectures in English.

Listen to each conversation and lecture only one time. After each conversation and lecture, you will answer some questions about it. Answer each question based on what is stated or implied by the speakers.

You may take notes while you listen and use your notes to help you answer the questions. Your notes will **not** be scored.

In some questions you will see this icon: . This means that you will hear, but not see, the question.

Answer each question before moving on. Do not return to previous questions.

It will take about 60 minutes to listen to the conversations and lectures and answer the questions about them.

Directions: Listen to Track 86. 🎧.

Directions: Now answer the questions.

1. What are the speakers mainly discussing?
   - Ⓐ Getting financial aid for college
   - Ⓑ Planning a student's course schedule for the next four years
   - Ⓒ Taking courses during the summer session
   - Ⓓ Differences in admissions requirements between Hooper University and two other schools
2. Why does the student want to take classes at City College?
   - Ⓐ Because Hooper University does not offer the classes he wants
   - Ⓑ Because City College classes cost less money than ones at Hooper University

Ⓒ So that he can take classes on the weekend

Ⓓ So that he can graduate from Hooper University early

3. Why will the man probably take only two courses?

Ⓐ Students are limited to two summer courses.

Ⓑ He can attend classes only on Saturday and Sunday.

Ⓒ His financial aid will pay for only two courses.

Ⓓ His summer job will keep him from taking more than two courses.

4. What will Ms. Brinker probably do for the man? *Choose 2 answers.*

[A] Give the man a student ID number

[B] Give the man a financial aid form

[C] Help the man figure out which classes to take

[D] Help the man apply to Hooper University

[E] Put the man's information into the City College admission system

5. Listen to Track 87. 🎧

Ⓐ The man waited too long to apply to City College.

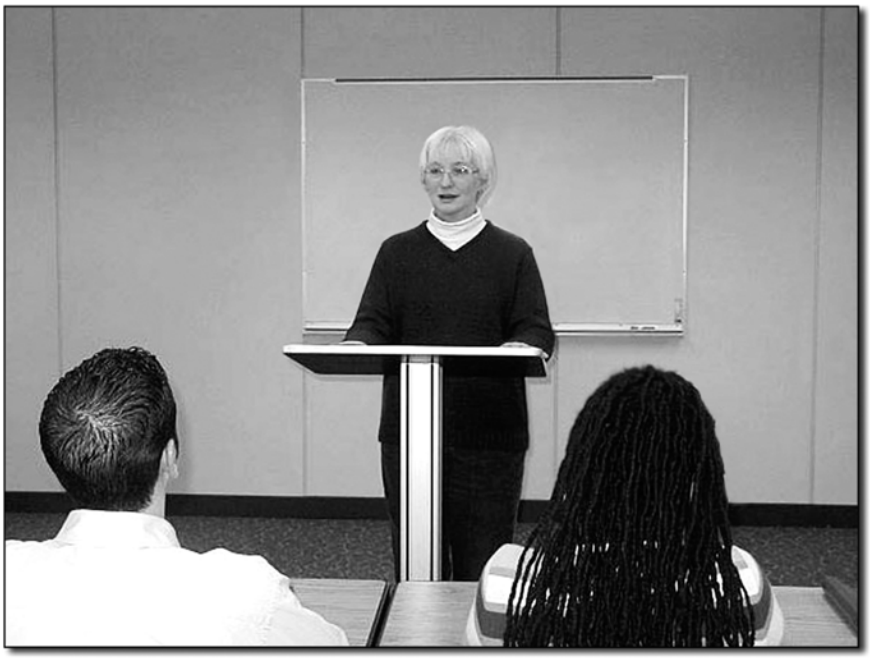
Ⓑ The man should not attend Hooper University.

Ⓒ The man will be able to do what he wants to do.

Ⓓ The man is very unlucky.

Directions: Listen to Track 88. 🎧

World History



Directions: Now answer the questions.

6. What is the main purpose of the lecture?

   Ⓐ To compare the study of world history to the study of United States history

Ⓑ To explain to the students their next assignment

Ⓒ To explain different approaches to the study of world history

Ⓓ To explain the origins of history as an academic discipline

7. Why does the professor mention the Western-Heritage Model used in her high school?

Ⓐ To explain why she prefers using the model

Ⓑ To emphasize that the model was widely used in the past

Ⓒ To correct an error in a student's description of the model

Ⓓ To compare high school history courses to college history courses

8. According to the professor, what is an advantage of the Different-Cultures Model?

Ⓐ It focuses on the history of the United States.

Ⓑ It is based upon the most widely researched theories.

Ⓒ It includes the history of a variety of cultural groups.

Ⓓ It makes thematic connections across different cultural groups.

9. What aspect of Islamic civilization will the professor likely discuss in the course?

Ⓐ A succession of Islamic rulers

Ⓑ The ancient origins of Islamic architecture

Ⓒ The isolation of European cultures from Islamic influence

Ⓓ Islamic elements in African cultures

10. Match each of the topics below with the type of world history course in which it would most likely be discussed.

Write your answer choices in the spaces where they belong.

The Western-Heritage Model	The Different-Cultures Model	The Patterns-of-Change Model

Answer Choices

1. [A] The contributions of Native American art to United States culture
2. [B] The independent discovery of printing techniques in Asia and Europe
3. [C] Ancient Roman foundations of the United States legal system

1. Listen to Track 89.

Ⓐ She doubts that the course will fulfill the students' expectations.

Ⓑ She hopes that the students selected the course because of their interest.

Ⓒ She is pleased that the course will fulfill the requirements.

Ⓓ She is worried that the students might not be familiar with the course requirements.

Directions: Listen to Track 90.

Environmental Science

Directions: Now answer the questions.

12. What does the professor mainly discuss?

Ⓐ A common weather pattern in the southern Great Plains region

Ⓑ Factors that created an ecological and human disaster

Ⓒ Farming techniques introduced during the Dust Bowl era

Ⓓ The erosion of grasslands by excessive rainfall

13. What happened during the agricultural expansion in the southern Great Plains?

Ⓐ People improved the soil by planting wheat.

Ⓑ Raising cattle and other livestock became less common.

Ⓒ Most of the landowners became farmers.

Ⓓ Much of the grassland was destroyed.

14. What point does the professor make when he mentions that good topsoil takes thousands of years to form?

Ⓐ It takes a long time to ruin good topsoil.

Ⓑ It was wrong to believe that land could not be damaged.

Ⓒ Farmers should not have moved on to other places.

Ⓓ Plowing the land creates good topsoil faster than natural processes do.

15. Why does the professor mention that drought is often blamed as the cause of the Dust Bowl?

Ⓐ To explain that many tenant farmers had to leave their land before the Dust Bowl era

Ⓑ To emphasize that the Dust Bowl resulted mainly from soil erosion

Ⓒ To show why the local population increased when rainfall returned to normal

Ⓓ To prove that the drought was the worst on record at that time

16. According to the professor, what did the Soil Erosion Act do to improve soil conservation? *Choose 2 answers.*

[A] It provided special equipment for farmers.

[B] It encouraged farmers to use better farming techniques.

[C] It turned damaged farmland into permanent grassland.

Ⓓ It increased the variety of crops grown on each farm.

17. Listen to Track 91.

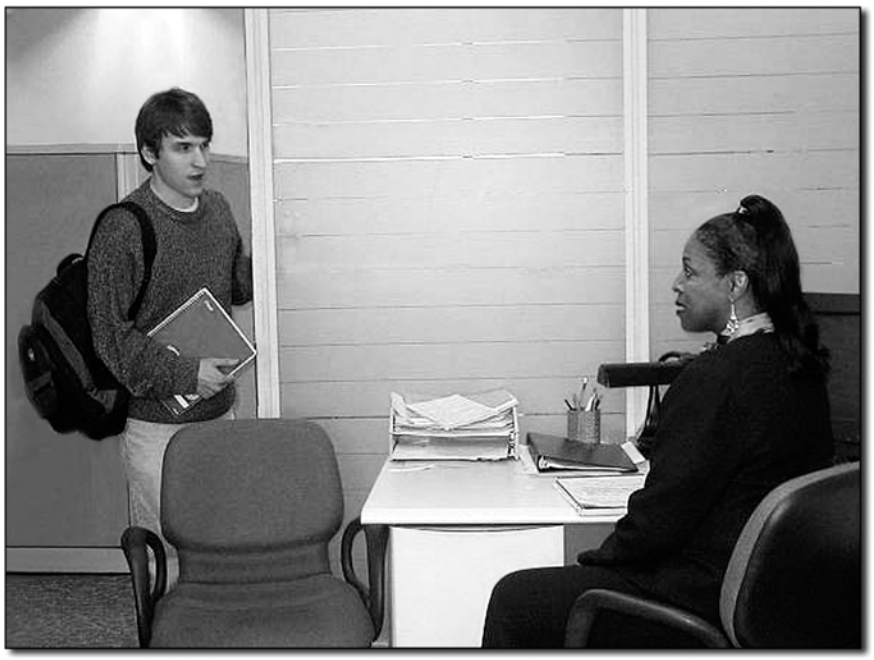
Ⓐ To ask the students for their opinions

Ⓑ To express uncertainty about a historical situation

Ⓒ To emphasize a point he has just made

Ⓓ To correct an earlier statement

Directions: Listen to Track 92.



Directions: Now answer the questions.

18. Why does the man go to see the woman?

Ⓐ To ask her to talk to his professor about an exam

Ⓑ To get help completing an assignment

Ⓒ To get help understanding why he is having trouble in his classes

Ⓓ To ask her opinion about which class he should take

19. What does the man imply about his Spanish class?

Ⓐ He helps other students in the class.

Ⓑ He is doing well in the class.

Ⓒ He cannot complete all the assignments.

Ⓓ He needs to study more for the class.

20. What problem does the man have with his reading assignments?

Ⓐ He is not interested in what he reads.

Ⓑ He cannot memorize definitions of terms.

Ⓒ He is overwhelmed by the amount he has to read.

Ⓓ He has difficulty identifying what is important information.

21. Why does the woman tell the man about her own experience as a student?

Ⓐ To make him aware that other students have similar problems

Ⓑ To encourage him to spend more time studying at the library

Ⓒ To explain the importance of remembering details

Ⓓ To convince him to take a study-skills course

22. What recommendations does the woman make about what the man should do? *Choose 2 answers.*

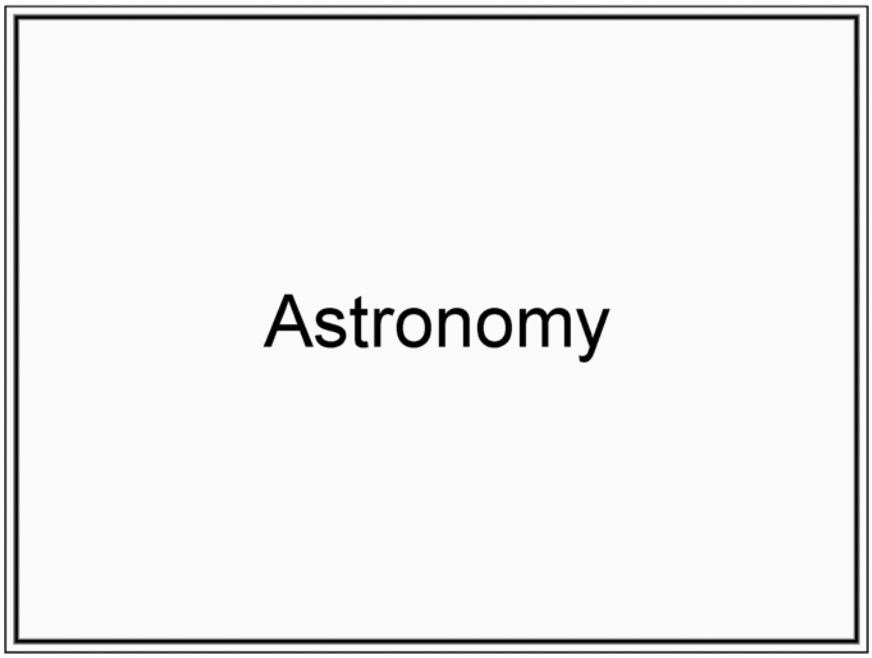
[A] Underline definitions in the text as he reads

[B] Write a summary of what he reads

[C] Read the text twice

[D] Find additional texts on his own

Directions: Listen to Track 93. 🎧



nebulae

Directions: Now answer the questions.

23. What is the lecture mainly about?

Ⓐ How astronomers found the correct interpretation for a certain observation

Ⓑ How astronomers distinguish between two kinds of nebulae

Ⓒ Various improvements to the telescope over the last 300 years

Ⓓ An old problem in astronomy that remains unsolved

24. According to the lecture, how did distant galaxies appear to eighteenth-century astronomers?

Ⓐ Like the moons of planets

Ⓑ Like small clouds

Ⓒ Like variable stars

Ⓓ Like bright points of light

25. What could astronomers better estimate once they knew what nebulae really were?

Ⓐ The diameter of variable stars

Ⓑ The density of cosmic dust

Ⓒ The size of the universe

Ⓓ The average number of planets in a galaxy

26. According to the professor, what did a 1920s telescope allow astronomers to do for the first time?

Ⓐ Study the moons of Jupiter

Ⓑ Observe gamma-ray bursters

Ⓒ Reject the dust theory of nebulae

Ⓓ Prove that galaxies are surprisingly small

27. What did eighteenth-century astronomers have in common with astronomers today?

Ⓐ They could not explain everything they detected with their instruments.

Ⓑ They knew the correct distances of objects they could not identify.

Ⓒ Their instruments were not powerful enough to detect spiral nebulae.

Ⓓ They argued over the natural brightness of variable stars.

28. Listen to Track 94. 🎧

Ⓐ She is certain about the correct answer.

Ⓑ She is now aware that her original idea had a weakness.

Ⓒ She is not convinced that the professor is right.

Ⓓ She thinks that the professor misunderstood what she said earlier.

Directions: Listen to Track 95. 🎧

Art History

Directions: Now answer the questions.

29. What is the lecture mainly about?

Ⓐ Various painting techniques

Ⓑ Ways to determine the purpose of a piece of art

Ⓒ How moral values are reflected in art

Ⓓ How to evaluate a piece of art

30. According to the professor, what did ancient Greek philosophers value in a work of art?

Ⓐ An accurate imitation of life

Ⓑ An unusual perspective on life

Ⓒ The expression of complex emotions

Ⓓ The use of symbolism

31. Why does the professor talk about personal taste?

Ⓐ To point out its importance in the evaluation of art

Ⓑ To help students understand the meaning of aesthetics

Ⓒ To show that personal taste and aesthetics are the same

Ⓓ To help explain art from different cultures

32. Why does the professor mention wheels and spheres?

Ⓐ To illustrate how movement can be expressed in a piece of art

Ⓑ To demonstrate that objects are more important than colors in a piece of art

Ⓒ To give an example of objects that have symbolic significance

Ⓓ To explain why some objects rarely appear in works of art

33. The professor mentions four formal steps used in examining a piece of art. Place the steps in order from first to last.

Write your answer choices in the spaces where they belong. You can either write the letter of your answer choice or you can copy the sentence.

1	
2	

3	
4	

Answer Choices

1. A Give an opinion about the piece of art.
2. B Identify possible symbols.
3. C Describe the piece of art.
4. D Determine the artist's meaning.

34. Listen to Track 96. 🎧

Ⓐ He will assign 12 pieces of art to evaluate.
Ⓑ He is organizing a class trip to the art museum.
Ⓒ It takes a lot of time to evaluate a piece of art.
Ⓓ Students will now be able to evaluate art quickly.

SPEAKING

This section measures your ability to speak in English about a variety of topics.

There are six questions in this section. For each question, you will be given a short time to prepare your response. When the preparation time is up, answer the question as completely as possible in the time indicated for that question. You should record your responses so that you can review them later and compare them with the answer key and scoring rubrics.

1. You will now be asked to speak about a familiar topic. Give yourself 15 seconds to prepare your response. Then record yourself speaking for 45 seconds.

   Listen to Track 97. 🎧

   Talk about a city or town you have visited in the past. Explain what you liked most about the city and why. Include specific reasons and examples in your response.

   Preparation Time: 15 seconds

   Response Time: 45 seconds

2. You will now be asked to give your opinion about a familiar topic. Give yourself 15 seconds to prepare your response. Then record yourself speaking for 45 seconds.

   Listen to Track 98. 🎧

   Some people enjoy watching movies or television in their spare time. Others prefer reading books or magazines. State which you prefer and explain why.

   Preparation Time: 15 seconds

Response Time: 45 seconds

3. You will now read a short passage and listen to a conversation on the same topic. You will then be asked a question about them. After you hear the question, give yourself 30 seconds to prepare your response. Then record yourself speaking for 60 seconds.

Listen to Track 99. 🎧

Reading Time: 45 seconds

Plans for Campus Gym

The recreational services department will receive special funding from this year's budget to increase the number of exercise machines in the campus gym. The increase is in response to numerous student complaints regarding the insufficient number of machines available. Recreational services agrees that, due to an increase in university enrollment, more students are using the gym. They, therefore, welcomed the proposal, adding that it would encourage even more students to exercise and would help to promote a healthier lifestyle among students.

Listen to Track 100. 🎧

The woman expresses her opinion about the plan described in the announcement. Briefly summarize the plan. Then state her opinion about the plan and explain the reasons she gives for holding that opinion.

Preparation Time: 30 seconds

Response Time: 60 seconds

4. You will now read a short passage and listen to a lecture on the same topic. You will then be asked a question about them. After you hear the question, give yourself 30 seconds to prepare your response. Then record yourself speaking for 60 seconds.

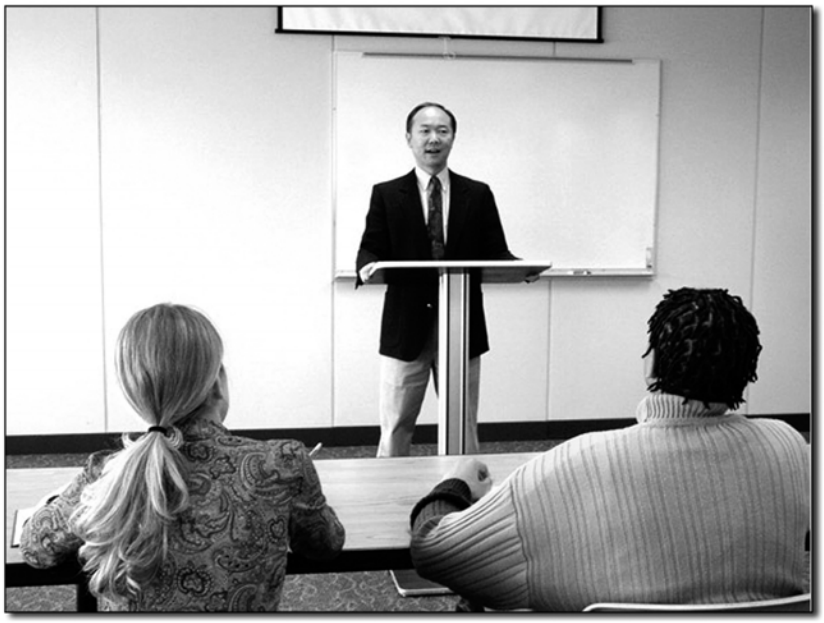
Listen to Track 101.

Reading Time: 50 seconds

Keystone Species

Within a habitat, each species depends on other species, and contributes to the overall stability of that ecosystem. However, some species do more than others by providing essential services. Without the influence of these key species, the habitat changes significantly. Scientists refer to these important players in an ecosystem as *keystone species*. When a keystone species disappears from its habitat, the habitat changes dramatically. Their disappearance can then trigger the loss of other species. As some species vanish, others move in or become more abundant. The new mix of species changes the habitat's appearance and character.

Listen to Track 102.



The professor gives examples of the effects of elephants on the African grasslands habitat. Using the examples from the talk, explain why elephants are considered a keystone species.

Preparation Time: 30 seconds

Response Time: 60 seconds

5. You will now listen to part of a conversation. You will then be asked a question about it. After you hear the question, give yourself 20 seconds to prepare your response. Then record yourself speaking for 60 seconds.

   Listen to Track 103. 🎧

Briefly summarize the problem the speakers are discussing. Then state which of the two solutions from the conversation you would recommend. Explain the reasons for your recommendation.

Preparation Time: 20 seconds

Response Time: 60 seconds

6. You will now listen to part of a lecture. You will then be asked a question about it. After you hear the question, give yourself 20 seconds to prepare your response. Then record yourself speaking for 60 seconds.

   Listen to Track 104. 🎧

Using the examples mentioned by the professor, describe two ways that writers create emphasis when writing dialogue.

Preparation Time: 20 seconds

Response Time: 60 seconds

WRITING

This section measures your ability to write in English to communicate in an academic environment.

There are two writing questions in this section.

For question 1, you will read a passage and listen to a lecture about the same topic. You may take notes while you read and listen. Then you will write a response to a question based on what you have read and heard. You may look back at the passage when answering the question. You may use your notes to help you answer the question. You have 20 minutes to plan and write your response.

For question 2, you will write an essay based on your own knowledge and experience. You have 30 minutes to plan and complete your essay.

1. **Directions:** Give yourself 3 minutes to read the passage.

Reading Time: 3 minutes

Soon technology will provide smart cars: cars that virtually drive themselves. A computer in the car determines the speed and route to the desired destination. The computer is in continuous contact with a global positioning system and other technologies that will provide extremely accurate information about the location of the car, other cars on the road, congestion, accidents, and so forth. The human driver will be little more than a passenger. Smart cars promise to make driving safer, quicker, and less expensive.

First of all, smart cars will prevent many accidents, thereby saving lives. The cars will be equipped with a variety of sensors that very accurately detect cars and other obstacles in their path, and they will have automatic programs that control braking and turning to avoid collisions. Given the hundreds of accidents that occur on highways daily, it is clear that humans do a poor job of avoiding accidents and that computer control would be a great improvement.

Second, with the wide use of smart cars, traffic problems will practically disappear. These computer-controlled cars can follow each other closely, even at high speeds. This ability will result in increased highway speeds. Today commuting by car can take hours a day. So the increased speed of smart cars will be a great benefit, welcomed by the many people who commute by car.

Finally, smart cars will bring a reduction in the costs of driving. Because smart cars are programmed to drive the most direct routes, car owners will have to spend less money on repairs and replacement parts. Expensive items such as brakes, tires, and transmissions will last much longer in smart cars than in other cars.

Listen to Track 105. 🎧

Directions: You have 20 minutes to plan and write your response. Your response will be judged on the basis of the quality of your writing and on how well your response presents the points in the lecture and their relationship to the reading passage. Typically, an effective response will be 150 to 225 words.

Listen to Track 106. 🎧

Response Time: 20 minutes

Summarize the points made in the lecture, being sure to explain how they challenge specific points made in the reading passage.

2. **Directions:** Read the question below. You have 30 minutes to plan, write, and revise your essay. Typically, an effective response will contain a minimum of 300 words.

Response Time: 30 minutes

Do you agree or disagree with the following statement?

A person should never make an important decision alone.

Use specific reasons and examples to support your answer.

ANSWERS

Reading Section

1. B
2. A
3. C
4. D
5. D
6. B
7. D
8. B
9. D
10. A
11. C
12. B
13. B
14. A, C, D
15. B
16. D
17. C
18. A
19. C
20. D
21. B

22. C
23. B
24. A
25. B
26. C, G, E, F, B, D, H
27. C
28. A
29. B
30. C
31. C
32. C
33. B
34. C
35. B
36. D
37. A
38. B
39. D
40. B, D, E

Listening Section

1. C
2. D
3. A
4. A, E
5. C
6. C

7. B
8. C
9. D
10. C, A, B
11. B
12. B
13. D
14. B
15. B
16. B, C
17. C
18. C
19. B
20. D
21. A
22. B, C
23. A
24. B
25. C
26. C
27. A
28. B
29. D
30. A
31. B
32. C
33. C, B, D, A

34. C

Speaking Section

1. There are many ways you could answer this particular question. You will need to talk about what you liked most about a city or town you have visited and explain why.

   You may begin by providing a specific example of what you liked most about the city that you choose. There are many possibilities to choose from, and there is no answer that is better than another. You could say you liked the people, a museum or other attraction, the weather, the town's shops, and so on. You should then provide more details about why you liked this most. For example, if you say that you visited New York City and you liked the stores and shopping the most, you could say that it has the biggest, oldest department stores that you have ever seen. The buildings are beautiful, and they are full of goods that you cannot find anywhere else. You might give an example of something that you bought there, such as a sweater, and explain how you would not have been able to find this sweater in another city. The important thing is to develop your ideas. You should not merely give a long list of reasons without providing details that help the listener understand why you liked that part of the city. You should also not simply give a general description of a city, but respond to the specific focus that the question asks for: the thing you liked most about the city and why.

   Your response should be intelligible, should demonstrate effective use of grammar and vocabulary, and should be well developed and coherent. Your response is scored using the Independent Speaking Rubric (see Appendix A).

2. To respond to this particular question, you should clearly state what your opinion is: Do you prefer to watch movies or television in your spare time or do you prefer to read books or magazines? Then you should give reasons to support your opinion. If you prefer to watch movies or television, you might give the reason that you enjoy the visual nature of films, and that you particularly enjoy seeing other places shown in films. You might then describe a particular film that you have enjoyed, such as a travel film, and say that these films inspire you to do your own traveling.

   If you say that you prefer reading books or magazines, you might say that you prefer to imagine something that you read yourself, rather than seeing a movie of it. You could say that you are often disappointed when you see a movie that was based on a book because you had imagined the scenes and characters differently and this is why you prefer to read. You may develop this further by describing a particular film and book.

   Keep in mind that there is no "correct" answer to this question. Whatever your preference is, your answer should be supported with examples. It is important to make sure that you state your opinion and develop your response with good examples and relevant details.

   Your response should be intelligible, should demonstrate effective use of grammar and vocabulary, and should be well developed and coherent. Your response is scored using the Independent Speaking Rubric (see Appendix A).

3. First, as the question states, you should provide a brief summary of the university's plan, which is to increase the number of exercise machines in the gym. You can also provide a brief summary of the reasons that they're doing this: 1) fewer

machines are available because of increased student enrollment, and 2) it will encourage more students to exercise. You should not spend too much time on this summary; if you attempt to provide many details from the reading, you may not have enough time to discuss both of the woman's reasons for disagreeing with the proposal. For this item type, a brief summary is all that is necessary. You should make sure that your summary is clear enough for the listener to understand the proposal without having access to additional information.

After the summary, you should state the woman's opinion of the university's plan to add exercise machines. In this case, the woman disagrees with the university's plan.

You should then convey the two main reasons she gives for holding that opinion. You will need to connect information from the conversation to the reading in order for the response to be complete. The woman disagrees with the first point about fewer machines being available. She says even though she does see more people in the gym, she does not have to wait to use the equipment.

Your response should also convey the woman's second reason for not agreeing with the university's plan. She thinks that adding new machines would not encourage more people to exercise. She says that the university already provides enough opportunities for students to exercise and have a healthy lifestyle. For example, there's a swimming pool, running paths, and sport teams.

Your response should be intelligible, should demonstrate effective use of grammar and vocabulary, and should be well developed and coherent. Your response is scored using the Integrated Speaking Rubric (see Appendix A).

4. To respond to this particular question you should first

explain the concept of keystone species as it was presented in the reading. You can talk about this as it relates to the elephant. Keystone species are important because the habitat they live in would change dramatically without them. Elephants living in grassland habitats in Africa are an example of a keystone species.

You should then discuss the professor's examples. Note that you do not need to repeat all of the details from the reading and the lecture, but instead integrate points from both to answer the question completely.

As one example of how the grasslands habitat would change without elephants, the professor says that elephants eat or destroy tree and shrub seeds and small plants, preventing many trees from growing in the grasslands. If they did not remove these trees, many trees would block sunshine, so grasses would die. The trees would eventually replace grasses, and the forest would replace the grasslands.

The professor discusses another way that the lack of elephants would impact the habitat. He says that other animals in this habitat depend on grasses for food and survival. When grasses die, these animals leave the habitat and new species move into the habitat. Both of these examples show why the elephant is a keystone species.

This is an example of a possible response. There are other effective ways to organize your answer. The most important thing is to discuss the specific information that is asked for in the question. Listeners should understand that elephants are considered a keystone species because they have an important effect on their environment and it would change greatly without them. The details you choose to discuss from the reading and the lecture should lead to this understanding.

Your response should be intelligible, should demonstrate effective use of grammar and vocabulary, and should be well developed and coherent. Your response is scored using the Integrated Speaking Rubric (see Appendix A).

5. To respond to this particular question you should *briefly* describe the problem. It is enough to say that too many students have enrolled in a biology class. Some students who need to take the class this semester were unable to register for the class and are complaining. You do not need to give many details at this point.

   Next, you need to choose *one* of the two solutions and explain why you think that solution is best. The two solutions in this conversation are: 1) open another biology section (or class) and hire a teaching assistant to teach it, or 2) ask some of the students that don't need the class this semester to drop the class. It does not matter which of the two proposed solutions you choose, since there is no "right" solution or "wrong" solution. You should choose the solution that you think is best and support your choice with reasons why you think it is best. The reasons you give can include information provided by the speakers as well as your own experiences.

   You may describe both solutions before choosing one of them, but you are not required to. You want to have enough time to summarize the problem, state which solution you prefer, and then provide an explanation for why you prefer that solution. Without these three parts, the response would be incomplete.

   In discussing your preferences, if you believe the first solution is preferable, you might say that this is the best solution because it is fair to all the students. You might discuss why the second solution would not work. You could say that it

is not fair to force first-year students out of the class because they might have the same problem with registering for it next year.

If you prefer the second solution, you might say that it would be too difficult to find another teaching assistant now, and if they did, the person might not be prepared to teach the class. It might be a waste of time for the students that are in that new class.

These are only examples of possible responses. This type of question can be answered in many different ways.

Your response should be intelligible, should demonstrate effective use of grammar and vocabulary, and should be well developed and coherent. Your response is scored using the Integrated Speaking Rubric (see Appendix A).

6. This particular question requires you to summarize the contents of a lecture you hear. In your response, you should talk about the two ways that writers create emphasis when writing dialogue. The professor says that exaggeration and understatement are two ways to create emphasis or impact.

After your general introduction, you should then talk about the first way that writers can create emphasis. The professor says that exaggeration can create impact or emphasis by describing something as bigger or more than it is. For example, a character in a story who is tired from a long walk might say, "I can't take another step" instead of saying "I'm tired." This exaggeration is more forceful and interesting.

You should then talk about the second way to create emphasis. The professor says that with understatement you can create emphasis by saying less than you mean. For example, the professor complimented her friend on a great meal by saying that it was "not bad." Using understatement makes for a

stronger statement.

You should make sure that you leave yourself enough time to talk about the second example. You will be expected to cover both examples.

Your response should be intelligible, should demonstrate effective use of grammar and vocabulary, and should be well developed and coherent. Your response is scored using the Integrated Speaking Rubric (see Appendix A).

Writing Section

1. What is important to understand from the lecture is that the professor disagrees with the advantages of smart cars presented in the reading, namely that smart cars will reduce the number of accidents; that smart cars will reduce commuting times; and that smart cars will save their owners money.

   In your response, you should convey the reasons presented by the professor for why smart cars will not produce the benefits predicted in the reading. A high-scoring response will include the following points made by the professor that cast doubt on the points made in the reading:

Point made in the reading	Counterpoint made in the lecture
Since smart cars will be equipped with sophisticated technology to detect obstacles and control braking and turning, many accidents that human drivers cause today will be prevented.	Technologies used in smart cars will fail occasionally, as all technologies do. Since smart cars will travel at greater speeds and closer together, such technology failures will result in accidents that will be more serious than accidents

	caused nowadays by human drivers.
Commuting time for many people will be reduced because smart cars will be able to travel at greater speeds and closer together.	Every improvement in driving convenience usually results in more people taking to the road. The introduction of smart cars will likely result in more cars on the road, which will cause additional traffic congestion. Commuting time is therefore not likely to decrease.
Smart cars will be able to choose the most direct routes. With less distance traveled, smart car owners will save money on repair and part replacement costs.	Sophisticated technologies used by smart cars will make the cars more expensive to buy and also more expensive to repair. These added costs will offset the savings identified in the reading.

Your response is scored using the Integrated Writing Rubric (see Appendix A). A response that receives a score of 5 clearly conveys all three of the main points in the table using accurate sentence structure and vocabulary.

2. To earn a top score, you should develop a multi-paragraph essay that responds to the issue of whether you believe a person should never make an important decision alone. Typically an effective response will contain a minimum of 300 words.

There are a number of ways to approach this topic. One way would be to describe a number of important decisions that have already been made or will likely have to be made by you or by an unspecified person who represents a group (for example, college students). You could then go on to discuss

reasons why these decisions are better made alone. Alternatively, you could discuss why input from others is helpful in decision-making; one reason for this could be that the experiences that others have had can help guide you. Or you could describe different kinds of decisions and explain why some of them should involve getting help from others, and why other kinds are best made by you alone.

Keep in mind that there is no "correct" answer to this question. Either or both sides of the issue can be supported with examples and reasons. It is important to make sure that you state your opinion and develop a response that explains your opinion. The development of your essay is judged by how effectively you support your opinion; a well-developed essay will contain clearly appropriate reasons, examples, and details that illustrate your opinion. Development is not evaluated simply in terms of how many words you write.

Your response should be well organized. A well-organized essay allows an evaluator to read from the beginning to the end of the essay without becoming confused. You should be sure not to just repeat the same information in different ways.

The quality and accuracy of the sentence structure and vocabulary you use to express your ideas is also very important.

Your response is scored using the Independent Writing Rubric (see Appendix A).

Appendix A

Speaking and Writing Scoring Rubrics

This section contains all the rubrics used by raters to score Speaking and Writing section responses. There are two different rubrics used to score the Speaking section, and two used to score the Writing section.

Speaking questions 1 and 2 are scored using the Independent Speaking Rubric, while questions 3–6 are scored using the Integrated Speaking Rubric. Writing question 1 is scored using the Integrated Writing Rubric, while question 2 is scored using the Independent Writing Rubric.

The chart below shows the main features of responses that must be considered when assigning a score.

Section	Question	Rubric	Main features considered when scoring
Speaking	1–2	Independent Speaking	**Delivery** • How clear is your speech? Good responses are fluid and clear, have good pronunciation, a natural pace, and natural-sounding intonation patterns. • Even at the highest level, there may be some minor problems; however, they do not cause difficulty for the listener. **Language use** • How effectively do you use grammar and vocabulary to convey ideas? In a good response, there is control of both basic and more complex language structures, and appropriate vocabulary is used. • Even at the highest level, some minor or systematic errors may be noticeable; however, they do not obscure meaning. **Topic development** • How fully do you answer the question, and how coherently do you present your ideas? In a good response, the relationship between ideas is clear and easy to follow, as is the progression from one idea to the next. Good responses generally use all or most of the time allotted.

Speaking	3–6	Integrated Speaking	**Delivery** • How clear is your speech? Good responses are fluid and clear, have good pronunciation, a natural pace, and natural-sounding intonation patterns. • Even at the highest level, there may be some minor problems; however, they do not cause difficulty for the listener. **Language use** • How effectively do you use grammar and vocabulary to convey ideas? In a good response, there is control of both basic and more complex language structures, and appropriate vocabulary is used. • Even at the highest level, some minor or systematic errors may be noticeable; however, they do not obscure meaning. **Topic development** • How fully do you answer the question, and how coherently do you present your ideas? Are you able to synthesize and summarize the information that was presented? In a good response, the relationship between ideas is clear and easy to follow, as is the progression from one idea to the next. Good responses generally use all or most of the time allotted. • Even at the highest level, a response may have minor inaccuracies about details or minor omissions of relevant details.
Writing	1	Integrated Writing	**Quality of the writing** • A good response is well organized. Use of grammar and vocabulary is appropriate and precise. **Completeness and accuracy of the content** • In a good response, important information from the lecture has been successfully selected, and it is coherently and accurately presented in relation to relevant information from the reading. • Even at the highest level, a response may have occasional language errors; however, they do not result in inaccurate or imprecise presentation of content or connections.
Writing	2	Independent Writing	**Quality of the writing** • A good response effectively addresses the topic and task; it is well developed. It is also well organized. Use of grammar and vocabulary is appropriate and precise. • Even at the highest level, a response may have minor lexical or grammatical errors; however, they do not interfere with meaning.

TOEFL iBT® Speaking Scoring Rubric—Independent Tasks

Score	General Description	Delivery	Language Use	Topic Development
4	**The response fulfills the demands of the task, with at most minor lapses in completeness. It is highly intelligible and exhibits sustained, coherent discourse. A response at this level is characterized by all of the following:**	Generally well-paced flow (fluid expression). Speech is clear. It may include minor lapses, or minor difficulties with pronunciation or intonation patterns, which do not affect overall intelligibility.	The response demonstrates effective use of grammar and vocabulary. It exhibits a fairly high degree of automaticity with good control of basic and complex structures (as appropriate). Some minor (or systematic) errors are noticeable but do not obscure meaning.	Response is sustained and sufficient to the task. It is generally well developed and coherent; relationships between ideas are clear (or clear progression of ideas).
3	**The response addresses the task appropriately, but may fall short of being fully developed. It is generally intelligible and coherent, with some fluidity of expression though it exhibits some noticeable lapses in the expression of ideas. A response at this level is characterized by at least two of the following:**	Speech is generally clear, with some fluidity of expression, though minor difficulties with pronunciation, intonation, or pacing are noticeable and may require listener effort at times (though overall intelligibility is not significantly affected).	The response demonstrates fairly automatic and effective use of grammar and vocabulary, and fairly coherent expression of relevant ideas. Response may exhibit some imprecise or inaccurate use of vocabulary or grammatical structures or be somewhat limited in the range of structures used. This may affect overall fluency, but it does not seriously interfere with the communication of the message.	Response is mostly coherent and sustained and conveys relevant ideas/information. Overall development is somewhat limited, usually lacks elaboration or specificity. Relationships between ideas may at times not be immediately clear.

2	**The response addresses the task, but development of the topic is limited. It contains intelligible speech, although problems with delivery and/or overall coherence occur; meaning may be obscured in places. A response at this level is characterized by at least two of the following:**	Speech is basically intelligible, though listener effort is needed because of unclear articulation, awkward intonation, or choppy rhythm/ pace; meaning may be obscured in places.	The response demonstrates limited range and control of grammar and vocabulary. These limitations often prevent full expression of ideas. For the most part, only basic sentence structures are used successfully and spoken with fluidity. Structures and vocabulary may express mainly simple (short) and/ or general propositions, with simple or unclear connections made among them (serial listing, conjunction, juxtaposition).	The response is connected to the task, though the number of ideas presented or the development of ideas is limited. Mostly basic ideas are expressed with limited elaboration (details and support). At times relevant substance may be vaguely expressed or repetitious. Connections of ideas may be unclear.
1	**The response is very limited in content and/or coherence or is only minimally connected to the task, or speech is largely unintelligible. A response at this level is characterized by at least two of the following:**	Consistent pronunciation, stress, and intonation difficulties cause considerable listener effort; delivery is choppy, fragmented, or telegraphic; frequent pauses and hesitations.	Range and control of grammar and vocabulary severely limits (or prevents) expression of ideas and connections among ideas. Some low level responses may rely heavily on practiced or formulaic expressions.	Limited relevant content is expressed. The response generally lacks substance beyond expression of very basic ideas. Speaker may be unable to sustain speech to complete task and may rely heavily on repetition of the prompt.
0	**Speaker makes no attempt to respond OR response is unrelated to the topic.**			

TOEFL iBT® Speaking Scoring Rubric—Integrated Tasks

Score	General Description	Delivery	Language Use	Topic Development
4	**The response fulfills the demands of the task with, at most, minor lapses in completeness. It is highly intelligible and exhibits sustained, coherent discourse. A response at this level is characterized by all of the following:**	Speech is generally clear, fluid and sustained. It may include minor lapses or minor difficulties with pronunciation or intonation. Pace may vary at times as speaker attempts to recall information. Overall intelligibility remains high.	The response demonstrates good control of basic and complex grammatical structures that allow for coherent, efficient (automatic) expression of relevant ideas. Contains generally effective word choice. Though some minor (or systematic) errors or imprecise use may be noticeable, they do not require listener effort (or obscure meaning).	The response presents a clear progression of ideas and conveys the relevant information required by the task. It includes appropriate detail, though it may have minor errors or minor omissions.
3	**The response addresses the task appropriately, but may fall short of being fully developed. It is generally intelligible and coherent, with some fluidity of expression, though it exhibits some noticeable lapses in the expression of ideas. A response at this level is characterized by at least two of the following:**	Speech is generally clear, with some fluidity of expression, but it exhibits minor difficulties with pronunciation, intonation or pacing and may require some listener effort at times. Overall intelligibility remains good, however.	The response demonstrates fairly automatic and effective use of grammar and vocabulary, and fairly coherent expression of relevant ideas. Response may exhibit some imprecise or inaccurate use of vocabulary or grammatical structures or be somewhat limited in the range of structures used. Such limitations do not seriously interfere with the communication of the message.	The response is sustained and conveys relevant information required by the task. However, it exhibits some incompleteness, inaccuracy, lack of specificity with respect to content, or choppiness in the progression of ideas.

2	**The response is connected to the task, though it may be missing some relevant information or contain inaccuracies. It contains some intelligible speech, but at times problems with intelligibility and/or overall coherence may obscure meaning. A response at this level is characterized by at least two of the following:**	Speech is clear at times, though it exhibits problems with pronunciation, intonation or pacing and so may require significant listener effort. Speech may not be sustained at a consistent level throughout. Problems with intelligibility may obscure meaning in places (but not throughout).	The response is limited in the range and control of vocabulary and grammar demonstrated (some complex structures may be used, but typically contain errors). This results in limited or vague expression of relevant ideas and imprecise or inaccurate connections. Automaticity of expression may only be evident at the phrasal level.	The response conveys some relevant information but is clearly incomplete or inaccurate. It is incomplete if it omits key ideas, makes vague reference to key ideas, or demonstrates limited development of important information. An inaccurate response demonstrates misunderstanding of key ideas from the stimulus. Typically, ideas expressed may not be well connected or cohesive so that familiarity with the stimulus is necessary in order to follow what is being discussed.
1	**The response is very limited in content or coherence or is only minimally connected to the task. Speech may be largely unintelligible. A response at this level is characterized by at least two of the following:**	Consistent pronunciation and intonation problems cause considerable listener effort and frequently obscure meaning. Delivery is choppy, fragmented, or telegraphic. Speech contains frequent pauses and hesitations.	Range and control of grammar and vocabulary severely limits (or prevents) expression of ideas and connections among ideas. Some very low-level responses may rely on isolated words or short utterances to communicate ideas.	The response fails to provide much relevant content. Ideas that are expressed are often inaccurate, limited to vague utterances, or repetitions (including repetition of prompt).
0	**Speaker makes no attempt to respond OR response is unrelated to the topic.**			

TOEFL iBT® Writing Scoring Rubric—Integrated Tasks

Score	Task Description
5	A response at this level successfully selects the important

	information from the lecture and coherently and accurately presents this information in relation to the relevant information presented in the reading. The response is well organized, and occasional language errors that are present do not result in inaccurate or imprecise presentation of content or connections.
4	A response at this level is generally good in selecting the important information from the lecture and in coherently and accurately presenting this information in relation to the relevant information in the reading, but it may have minor omission, inaccuracy, vagueness, or imprecision of some content from the lecture or in connection to points made in the reading. A response is also scored at this level if it has more frequent or noticeable minor language errors, as long as such usage and grammatical structures do not result in anything more than an occasional lapse of clarity or in the connection of ideas.
3	A response at this level contains some important information from the lecture and conveys some relevant connection to the reading, but it is marked by one or more of the following: • Although the overall response is definitely oriented to the task, it conveys only vague, global, unclear, or somewhat imprecise connection to the points made in the lecture to points made in the reading. • The response may omit one major key point made in the lecture. • Some key points made in the lecture or the reading, or connections between the two, may be incomplete, inaccurate, or imprecise. • Errors of usage and/or grammar may be more frequent or may result in noticeably vague expressions or obscured meanings in conveying ideas and connections.
2	A response at this level contains some relevant information from the lecture, but is marked by significant language difficulties or by significant omission or inaccuracy of

	important ideas from the lecture or in the connections between the lecture and the reading; a response at this level is marked by one or more of the following: • The response significantly misrepresents or completely omits the overall connection between the lecture and the reading. • The response significantly omits or significantly misrepresents important points made in the lecture. • The response contains language errors or expressions that largely obscure connections or meaning at key junctures, or that would likely obscure understanding of key ideas for a reader not already familiar with the reading and the lecture.
1	A response at this level is marked by one or more of the following. • The response provides little or no meaningful or relevant coherent content from the lecture. • The language level of the response is so low that is difficult to derive meaning.
0	A response at this level merely copies sentences from the reading, rejects the topic or is otherwise not connected to the topic, is written in a foreign language, consists of keystroke characters, or is blank.

TOEFL iBT® Writing Scoring Rubric—Independent Tasks

Score	Task Description
5	**An essay at this level largely accomplishes all of the following:** • Effectively addresses the topic and task • Is well organized and well developed, using clearly appropriate explanations, exemplifications, and/or details • Displays unity, progression, and coherence • Displays consistent facility in the use of language,

	demonstrating syntactic variety, appropriate word choice, and idiomaticity, though it may have minor lexical or grammatical errors.
4	**An essay at this level largely accomplishes all of the following:** • Addresses the topic and task well, though some points may not be fully elaborated • Is generally well organized and well developed, using appropriate and sufficient explanations, exemplifications, and/or details • Displays unity, progression, and coherence, though it may contain occasional redundancy, digression, or unclear connections • Displays facility in the use of language, demonstrating syntactic variety and range of vocabulary, though it will probably have occasional noticeable minor errors in structure, word form, or use of idiomatic language that do not interfere with meaning
3	**An essay at this level is marked by one or more of the following:** • Addresses the topic and task using somewhat developed explanations, exemplifications, and/or details • Displays unity, progression, and coherence, though connection of ideas may be occasionally obscured • May demonstrate inconsistent facility in sentence formation and word choice that may result in lack of clarity and occasionally obscure meaning • May display accurate but limited range of syntactic structures and vocabulary
2	**An essay at this level may reveal one or more of the following weaknesses:** • Limited development in response to the topic and task • Inadequate organization or connection of ideas • Inappropriate or insufficient exemplifications, explanations,

	or details to support or illustrate generalizations in response to the task • A noticeably inappropriate choice of words or word forms • An accumulation of errors in sentence structure and/or usage
1	**An essay at this level is seriously flawed by one or more of the following weaknesses:** • Serious disorganization or underdevelopment • Little or no detail, or irrelevant specifics, or questionable responsiveness to the task • Serious and frequent errors in sentence structure or usage
0	**An essay at this level** merely copies words from the topic, rejects the topic, or is otherwise not connected to the topic, is written in a foreign language, consists of key stroke characters, or is blank.

Appendix B

Audio Track Transcripts

TRACK 1 TRANSCRIPT

Narrator
Listen to a conversation between a student and a librarian.

Librarian
Can I help you?

Student
Yeah, I need to find a review. It's for my English class. We have to find reviews of the play we're reading. But they have to be from when the play was first performed—so I need to know when that was … and I suppose I should start with newspaper reviews …

Librarian
Contemporary reviews.

Student
Sorry?

Librarian
You want contemporary reviews. What's the name of the play?

Student
It's *Happy Strangers*. It was written in 1962 and we're supposed to write about its influence on American theater—show why it's been so important.

Librarian
Well, that certainly explains why your professor wants you to read some of those old reviews. The critics really tore the play to pieces when it opened. It was just so controversial—nobody'd ever seen anything like it on the stage.

Student
Really? It was that big a deal?

Librarian
Oh sure. Of course, the critics' reaction made some people kinda curious about it; they wanted to see what was causing all the fuss. In fact, we were on vacation in New York—I had to be, oh around sixteen or so—and my parents took me to see it. That would've been about 1965.

Student
So that was the year it premiered? Great! But … newspapers from back then aren't online, so how do I …

Librarian
Well, we have copies of old newspapers in the basement, and all the *major* papers publish reference guides to their articles, reviews, etc. You'll find *them* in the reference stacks in back. But I'd start with 1964. I think the play'd been running for a little while when I saw it.

Student
Oh, how'd you like it? I mean it's just two characters onstage hanging around and basically doing nothing.

Librarian
Well, I was impressed: the actors were famous and, besides, it was my first time in a *real* theater. But you're right—it was definitely different from any plays that we'd read in high school. Of course, in a small town, the assignments are pretty traditional.

Student
I've only read it, but it doesn't seem like it'd be much fun to watch. The story doesn't progress in a, in any sort of logical manner. It doesn't have any real ending either. It just stops. Honestly, y'know, I thought it was kinda slow and boring.

Librarian
Well, I guess you might think that, but when I saw it back then it was anything but boring! Some parts were really funny—but I remember crying, too. But I'm not sure just reading it … You know, they've done this play at least once on campus. I'm sure there's a tape of the play in our video library. You might want to borrow it.

Student
That's a good idea. I'll have a better idea of what I *really* think of it—before I read those reviews.

Librarian
I'm sure you'll be surprised that anyone ever found it radical—but you'll see why it's still powerful—dramatically speaking.

Student
Well, there must be *something* about it or the professor wouldn't have assigned it. I'm sure I'll figure it out.

TRACK 2 TRANSCRIPT

Narrator
Listen again to part of the conversation. Then answer the question.

Student
I suppose I should start with newspaper reviews …

Librarian
Contemporary reviews.

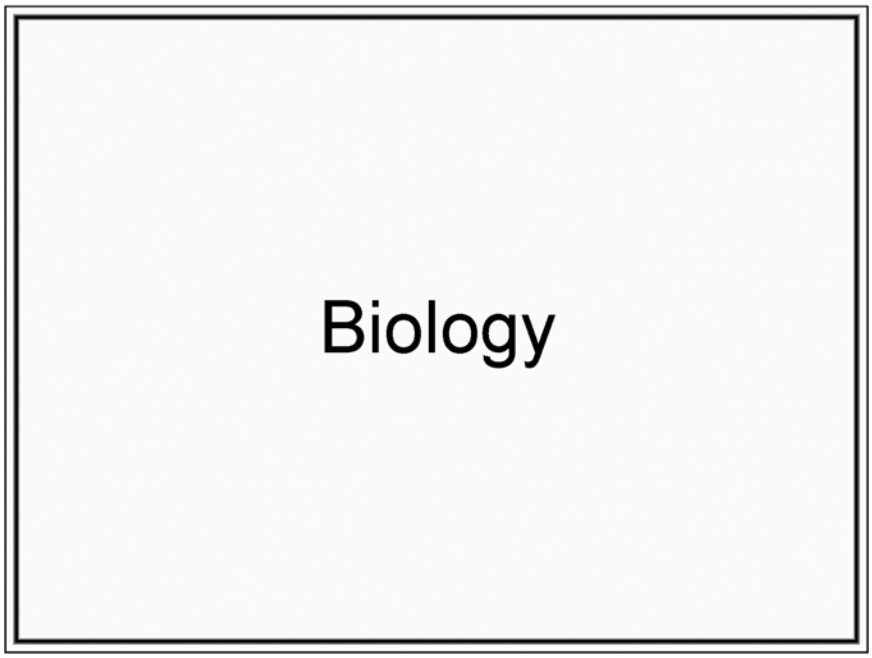
Student
Sorry?

Librarian
You want contemporary reviews. What's the name of the play?

Narrator
Why does the woman say this:

Librarian
Contemporary reviews.

TRACK 3 TRANSCRIPT



Narrator

Listen to part of a lecture in a biology class. The class is discussing animal behavior.

Professor

OK, the next kind of animal behavior I want to talk about might be familiar to you. You may have seen, for example, a bird that's in the middle of a mating ritual. And, and suddenly it stops and preens—you know, it takes a few moments to straighten its feathers—and then returns to the mating ritual. This kind of behavior—this doing something that seems completely out of place—is what we call a displacement activity.

Displacement activities are activities that animals engage in when they have conflicting drives—if, if we take our example from a minute ago—if the bird is afraid of its mate, it's conflicted, it wants to mate, but it's also afraid and wants to run away, so instead it starts grooming itself. So the displacement activity, the, the grooming, the straightening of its feathers seems to be an irrelevant behavior.

So what do you think another example of a displacement activity might be?

Male student
How about an animal that, um, instead of fighting its enemy or running away, it attacks a plant or a bush?

Professor
That's a really good suggestion, Carl, but *that's* called redirecting. The animal is *redirecting* its behavior to another object, in this case, the plant or the bush. But that's not an irrelevant or inappropriate behavior—the behavior makes sense—it's appropriate under the circumstances, but what doesn't make sense is the *object* the behavior's directed towards. OK, who else? Carol?

Female student
I think I read in another class about an experiment, um, where an object that the animal was afraid of was put next to its food—next to the animal's food—and the animal, it was conflicted between confronting the object, and eating the food, so instead it just fell asleep. Like that?

Professor
That's *exactly* what I mean. Displacement occurs because the animal's got two conflicting drives, two competing urges, in this case, fear and hunger—and what happens is they *inhibit* each other—they cancel each other out in a way, and a third, seemingly *irrelevant* behavior surfaces … through a process that we call disinhibition.

Now, in disinhibition, the basic idea is that two drives that seem to inhibit, to hold back a third drive, well, well, they get in the way of each other in a, in a conflict situation, and somehow lose control, lose their inhibiting effect on that third behavior … wh-which means that the third drive surfaces … it-it's expressed in the animal's behavior.

Now, these displacement activities can include feeding, drinking, grooming, even sleeping. These are what we call "comfort behaviors." So why do you think displacement activities are so often comfort behaviors, such as grooming?

Male student
Maybe because it's easy for them to do—I mean, grooming is like one of the most accessible things an animal can do—it's something they do all the time, and they have the–the *stimulus* right there, on the outside of their bodies in order to do the grooming—or if food is right in front of them. Basically, they don't have to think very much about those behaviors.

Female student
Professor, isn't it possible that animals groom because they've gotten

messed up a little from fighting or mating? I mean, if a bird's feathers get ruffled, or an animal's fur—maybe it's not so strange for them to stop and tidy themselves up at that point.

Professor
That's another possible reason, although it doesn't necessarily explain other behaviors such as eating, drinking, or sleeping. What's interesting is that studies have been done that suggest that the animal's *environment* may play a part in determining what kind of behavior it displays. For example, there's a bird—the wood thrush, anyway when the wood thrush is in an attack-escape conflict—that is, it's caught between the two urges to escape from or to attack an enemy—if it's sitting on a horizontal branch, it'll wipe its beak on its perch. If it's sitting on a vertical branch, it'll groom its breast feathers. The immediate environment of the bird—its immediate, um, its relationship to its immediate environment seems to play a part in which behavior it will display.

TRACK 4 TRANSCRIPT

Narrator
Listen again to part of the lecture. Then answer the question.

Professor
So what do you think another example of a displacement activity might be?

Male student
How about an animal that, uh, instead of fighting its enemy or running away, it attacks a plant or a bush?

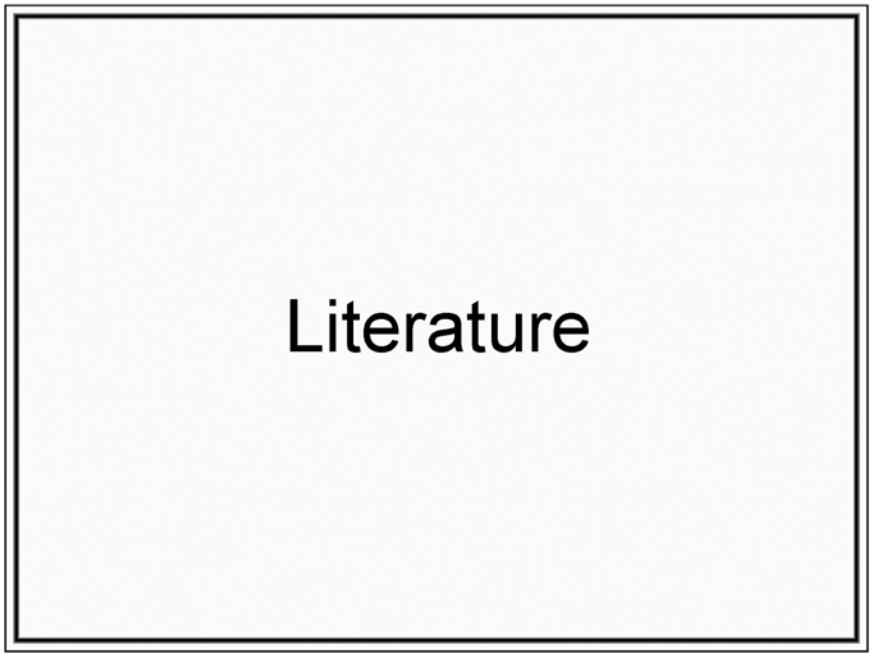
Professor
That's a really good suggestion, Carl, but that's called redirecting.

Narrator

What does the professor mean when she says this:

Professor
That's a really good suggestion, Carl, but that's called redirecting.

TRACK 5 TRANSCRIPT



Narrator
Listen to part of a lecture in a literature class.

Professor
All right, so let me close today's class with some thoughts to keep in mind while you're doing tonight's assignment. You'll be reading one of Ralph Waldo Emerson's best-known essays, "Self-Reliance," and comparing it with his poems and other works. I think this essay has the potential to be quite meaningful for all of you—as young people who probably wonder about things like truth, and where your lives are going … all sorts of profound questions.

Knowing something about Emerson's philosophies will help you when you read "Self-Reliance." And basically, one of the main beliefs that he had, was about *truth*. Not that it's something that we can be taught … Emerson says it's found within ourselves.

So this truth … the idea that it's in each one of us … is one of the first points that you'll see Emerson making in this essay. It's a bit abstract, but he's very into, ah, into each person believing his or her own thought. Believing in yourself, the thought or conviction that's true for you.

But actually, he ties that in with a sort of universal truth, something that everyone knows but doesn't realize they know. Most of us aren't in touch with ourselves, in a way, so we just aren't *capable* of recognizing profound truths. It takes geniuses … people like, say, Shakespeare, who are unique because when they have a glimpse of this truth—this universal truth—they pay attention to it and express it, and don't just dismiss it like most people do.

So, Emerson is really into each individual believing in, and trusting, him- or herself. You'll see that he writes about … well, first, conformity. He *criticizes* the people of his time, for abandoning their own minds and their own wills for the sake of conformity and consistency. They try to fit in with the rest of the world, even though it's at odds with their beliefs and their identities. Therefore, it's best to be a *nonconformist*—to do your own thing, not worrying about what other people think. That's an important point—he really drives this argument home throughout the essay.

When you're reading I want you to think about that, and why that kind of thought would be relevant to the readers of his time. Remember, this is 1838. Self-reliance was a novel idea at the time, and United States citizens were less secure about themselves as individuals and as Americans. The country as a whole was trying to define itself. Emerson wanted to give people something to really think about. Help them find their own way and, ah, what it meant to *be* who they were.

So, that's something that I think is definitely as relevant today as it was then … probably, uh … especially among young adults like yourselves. You know, uh, college being a time to sort of really think about who you are and where you're going.

Now, we already said that Emerson really emphasized nonconformity, right? As a way to sort of not lose your own self and identity in the world? To have your own truth and not be afraid to listen to it? Well, he takes it a step *further*. Not conforming also means, ah, not

conforming with *yourself*, or your past. What does *that* mean? Well, if you've always been a certain way, or done a certain thing, but it's not working for you anymore, or you're not content—Emerson says that it'd be foolish to be consistent even with our own past. Focus on the future, he says: that's what matters more. Inconsistency is good! He talks about a ship's voyage—and this is one of the most famous bits of the essay—how the best voyage is made up of zigzag lines. Up close, it seems a little all over the place, but from farther away the true path shows, and in the end it justifies all the turns along the way.

So, don't worry if you're not sure where you're headed or what your long-term goals are—stay true to yourself and it'll make sense in the end. I mean, *I* can attest to that. Before I was a literature professor, I was an accountant. Before that, I was a newspaper reporter. My life has taken some pretty interesting turns, and here I am, very happy with my experiences and where they've brought me. If you rely on yourself and trust your own talents, your own interests, don't worry. Your path will make sense in the end.

TRACK 6 TRANSCRIPT

Narrator
Listen again to part of the lecture. Then answer the question.

Professor
Remember, this is 1838. Self-reliance was a novel idea at the time, and United States citizens were less secure about themselves as individuals and as Americans.

Narrator
Why does the professor say this:

Professor
Remember, this is 1838.

TRACK 7 TRANSCRIPT

Narrator
Listen to a conversation between a student and a professor.

Professor
Hey Jane. You look like you're in a hurry …

Student
Yeah, things're a little crazy.

Professor
Oh, yeah? What's going on?

Student
Oh, it's nothing … Well, since it's your class … I guess it's OK … it's, it's just that I'm having trouble with my group project.

Professor
Ah, yes. Due next week. What's your group doing again?

Student
It's about United States Supreme Court decisions. We're looking at the impact of recent cases on property rights, municipal land use cases, zoning disputes …

Professor
Right, OK … And it's not going well?

Student
Not really. I'm worried about the other two people in my group. They're just sitting back, not really doing their fair share of the work, and waiting for an A. It's kinda stressing me out, because we're getting close to the deadline and I feel like I'm doing everything for this project …

Professor
Ah, the good ole "free-rider" problem.

Student
Free rider?

Professor
Oh, it's just a term that describes this situation: when people in a group seek to get the benefits of being in the group without contributing to the work … Anyway, what exactly do you mean when you say they just sit back? I mean, they've been filing their weekly progress reports with me …

Student
Yes, but I feel like I'm doing 90 percent of the work. I hate to sound so negative here, but honestly, they're taking credit for things they shouldn't be taking credit for. Like last week in the library, we decided to split up the research into three parts, and then each of us was supposed to find sources in the library for our parts. I went off to the stacks and found some really good material for my part, but when I got back to our table they were just goofing off and talking. So I went and got material for their sections as well.

Professor
Hmm, you know you shouldn't do that.

Student
I know, but I didn't want to risk the project going down the drain.

Professor
I know Theresa and Kevin, I've had both of them in other courses … so I'm familiar with their work, and their work habits.

Student
I know, me too, and that's why this has really surprised me.

Professor
Do you … does your group like your topic?

Student
Well, I think we'd all rather focus on cases that deal with personal liberties—questions about freedom of speech, things like that—but I chose property rights …

Professor
You chose the topic?

Student
Yeah, I thought it would be good for us, all of us, to try something new.

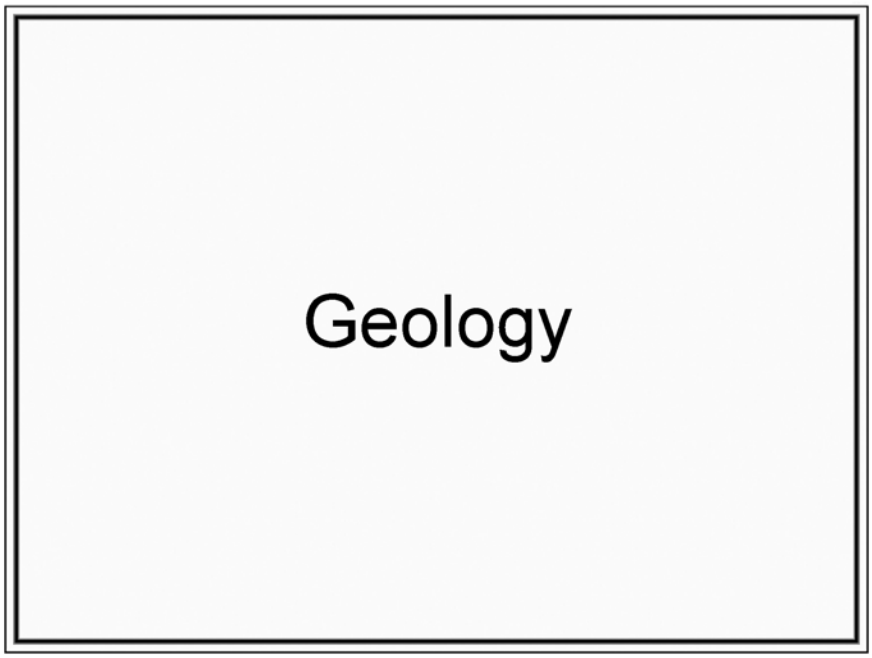
Professor
Maybe that's part of the problem—maybe Theresa and Kevin aren't that excited about the topic—and since you picked it … Have you thought … talked to them at all about picking a different topic?

Student
But, we've already got all the sources. And it's due next week. We don't have time to start from scratch.

Professor
OK, well, I'll let you go 'cause I know you're so busy. But you might … consider talking to your group about your topic choice …

Student
I'll think about it. Gotta run. See you in class.

TRACK 8 TRANSCRIPT



Narrator
Listen to part of a lecture in a geology class.

Professor

Now, we've got a few minutes before we leave for today. So I'll just touch on an interesting subject that I think makes an important point. We've been covering rocks, and different types of rocks, for the last several weeks, but next week we're going to do something a little bit different. And to get started I thought I'd mention something that shows how, uh, as a geologist, you need to know about *more* than just rocks and the structure of solid matter. Moving rocks. You may have heard about them.

It's quite a mystery. Death Valley is this desert plain … a dry lakebed in California, surrounded by mountains, and on the desert floor are these huge rocks … some of them hundreds of pounds … and they move! They leave long trails behind them—tracks you might say—as they move from one point to another. But nobody has been able to figure out *how* they're moving because no one has ever *seen* it happen. Now there are a lot of theories, but all we know for sure is that people aren't moving the rocks. There're no footprints, no tire tracks, and no heavy machinery—like a bulldozer, uh, nothing was ever brought in to move these heavy rocks.

So what's going on? Theory number one: *wind*. Some researchers think powerful, uh, windstorms might move the rocks. *Most* of the rocks move in the same direction as the dominant wind pattern, from southwest to northeast. But some, and this is interesting, move straight west, while some zigzag … or even move in large circles. Hmmm … how can that be? How 'bout *wind combined with rain*? The ground of this desert is made of clay. It's a desert, so it's dry. But when there is the occasional rain, the clay ground becomes extremely slippery. It's hard for anyone to stand on, walk on.

So, one theory was that perhaps when the ground is slippery, high winds can *then* move the rocks. But five or ten years ago a team of scientists tested that theory. They experimented by flooding an area of the desert with water, and then trying to establish how much wind force would be necessary to move the rocks. They calculated that it would take winds of at least 500 miles an hour to move the rocks. And since winds that strong don't occur anywhere on Earth, they concluded that the wind wasn't the cause, even with slippery ground. Now, more recent research suggests that it would take winds of only *150* miles an hour, not 500, but even winds *that* strong don't occur in Death Valley. So the original experiment's conclusion that wind is not the culprit seems right.

Here's another possibility: *ice*. It's possible that rain on the desert floor could turn to thin sheets of ice when temperatures drop at night. So, if rocks, uh, become embedded in ice, um, OK, could a piece of *ice* with rocks in it be pushed around by the wind? Makes sense, but there's a problem with *this* theory *too*. Rocks *trapped in ice together* would have *moved together* when the ice moved. But that doesn't always happen. The rocks seem to take separate routes. Nevertheless, ice is probably involved, we just don't quite know how yet. And of course there are other theories. Maybe the ground vibrates, or maybe the ground *itself* is shifting, tilting. Maybe the rocks are moved by a magnetic force. Uh, but sadly, all these ideas have been eliminated as possibilities. There's just not enough evidence.

I bet you're saying to yourself, well, why don't scientists just set up video cameras to record what actually happens? Thing is, this is a protected wilderness area, so by law, that type of research isn't allowed. Besides, in powerful windstorms, sensitive camera equipment would be destroyed. So why can't researchers just live there for a while until they observe the rocks moving? Same reason.

So where are we now? Well, despite some recent progress, we still don't have definite answers. So all this leads back to my main point.

You need to know about more than just rocks as geologists. The researchers studying moving rocks, well, they combined their knowledge of rocks with knowledge of wind, ice, and such, uh, not successfully, not yet, but y'know … they wouldn't even have been able to get started without, uh … *earth science* understanding. Knowledge about wind … storms … you know, *meteorology*. You need to understand *physics*. So for several weeks, like I said, we'll be addressing geology from a *wider* perspective. I guess that's all for today. See you next time.

TRACK 9 TRANSCRIPT

Narrator
Listen again to part of the lecture. Then answer the question.

Professor
Most of the rocks move in the same direction as the dominant wind pattern, from southwest to northeast. But some, and this is interesting, move straight west, while some zigzag … or even move in large circles. Hmmm … how can that be?

Narrator
What does the professor imply when he says this:

Professor
But some, and this is interesting, move straight west, while some zigzag … or even move in large circles. Hmmm … how can that be?

TRACK 10 TRANSCRIPT

United States Government

Narrator
Listen to part of a discussion in a United States government class.

Professor
OK, last time we were talking about government support for the arts. Who can sum up some of the main points? Frank?

Male student
Well, I guess there wasn't *really* any, you know, *official* government support for the arts until the twentieth century. But the first attempt the United States government made to, you know, to support the arts was the Federal Art Project.

Professor
Right. So, what can you say about the project?

Male student
Um, it was started during the Depression, um, in the 1930s, to employ out-of-work artists.

Professor
So was it successful? Janet? What do you say?

Female student
Yeah, sure, it was successful—I mean, for one thing, the project established a lot of, like, community art centers and, uh, galleries in places like rural areas where people hadn't really had access to the arts.

Professor
Right.

Male student
Yeah, but didn't the government end up wasting a lot of money for art that wasn't even very good?

Professor
Uh, some people might say that, but wasn't the primary objective of the Federal Art Project to provide jobs?

Male student
That's true. I mean, it did provide jobs for thousands of unemployed artists.

Professor
Right, but then, when the United States became involved in the Second World War, unemployment was down, and it seemed that these programs weren't really necessary any longer.

So, moving on … we don't actually see any govern—er, well, any *real* government involvement in the arts *again* until the early 1960s, when President Kennedy and other politicians started to push for major funding to support and promote the arts. It was felt by a number of politicians that, well, that the government had a *responsibility* to … uh, support the arts as sort of, oh what can we say, the soul, or *spirit* of the country. The idea was that there'd be a federal *subsidy*, uh, financial *assistance* to artists and artistic or cultural institutions. And for just those reasons, in 1965, the National Endowment for the Arts was created.

So, it was through the NEA, the National Endowment for the Arts, um, that the arts would develop, would be *promoted* throughout the nation. And then, individual states throughout the country started to establish their *own* state arts councils to help support the arts. There was kind

of a cultural explosion—and by the mid-1970s, by 1974, I think, all 50 states had their own arts agencies, their own state arts councils that worked with the federal government, with corporations, artists, performers, you name it.

Male student
Did you just say corporations? How were they involved?

Professor
Well, you see, corporations aren't always altruistic, they might not support the arts unless … well, unless the government made it attractive for them to do so, by offering corporations tax incentives to support the arts—that is by letting corporations pay less in taxes if they were patrons of the arts. Uh, the Kennedy Center in Washington, D.C., you may, maybe you've been there, or Lincoln Center in New York. Both of these were built with substantial financial support from corporations. And the Kennedy and Lincoln Centers aren't the only examples—many of your cultural establishments in the United States will have a plaque somewhere acknowledging the support, the money, they've received from whatever corporation. Yes, Janet?

Female student
But aren't there a lot of people who don't think it's the government's role to support the arts?

Professor
Well, as a matter of fact, a lot of politicians who did not believe in government support for the arts, they wanted to do away with the agency entirely for that very reason—to get rid of governmental support—but they only succeeded in taking away about half the annual budget. And as far as the public goes … well, there are about as many individuals who disagree with government support as there are those who agree—in fact, with artists in particular, you have lots of artists who support—and who have benefitted from—this agency, although it seems that just as many artists oppose a government agency being involved in the arts for many different reasons—reasons

like they don't want the government to control what they create. In other words … the arguments both for and against government funding of the arts are as many and, and as varied as the individual styles of the artists who hold them.

TRACK 11 TRANSCRIPT

Narrator
Listen again to part of the discussion. Then answer the question.

Male student
Yeah, but didn't the government end up wasting a lot of money for art that wasn't even very good?

Professor
Uh, *some* people might say that, but wasn't the *primary* objective of the Federal Art Project to *provide jobs*?

Narrator
What does the professor imply when she says this:

Professor
Uh, *some* people might say that, but wasn't the *primary* objective of the Federal Art Project to *provide jobs*?

TRACK 12 TRANSCRIPT

Narrator
What do you miss most about your home when you are away? Use specific details in your explanation.

TRACK 13 TRANSCRIPT

Narrator
Many universities now offer academic courses over the Internet. However, some people still prefer learning in traditional classrooms. Which do you think is better? Explain why.

TRACK 14 TRANSCRIPT

Narrator
The computer department is considering making a scheduling change. You will have 45 seconds to read an article in the campus newspaper about the change. Begin reading now.

TRACK 15 TRANSCRIPT

Narrator
Now listen to two students discussing the article.

Male student
I just don't think this will work.

Female student
Why not?

Male student
Because it's not gonna solve the problem. Students are busy at night … I mean, we have jobs, families, clubs, social events. Most of us already have something to do every single night of the week.

Female student
I see your point. I sure couldn't fit anything into my schedule during the week—I've got swimming practice most nights.

Male student
Right. And as far as expense goes, I think they're going about it the wrong way. I mean, it costs money to hire more teachers and keep the academic building open later. Which is a lot more expensive than just simply buying more computers.

Female student
More computers?

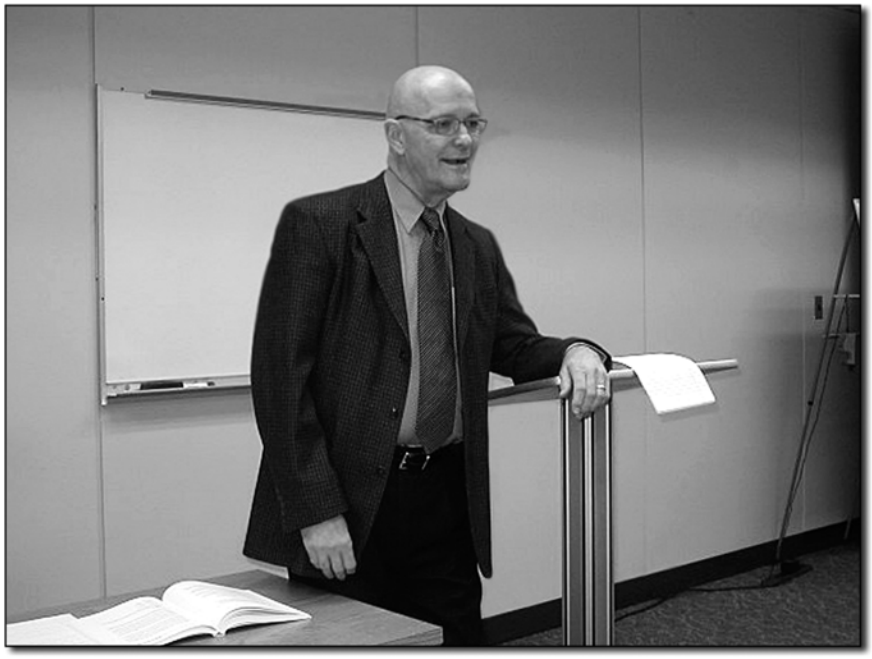
Male student
That's right. Computer prices have come way down the past few years, so the department won't have to spend as much now as they did in the past. Besides, the computer department classrooms, you know, the rooms themselves, they're actually very big … there's plenty of space to add more computers.

Narrator
The man expresses his opinion about the proposal described in the article. Briefly summarize the proposal. Then state his opinion about the proposal and explain the reasons he gives for holding that opinion.

TRACK 16 TRANSCRIPT

Narrator
Now read a passage from a psychology textbook. You have 45 seconds to read the passage. Begin reading now.

TRACK 17 TRANSCRIPT



Narrator
Now listen to part of a lecture on this topic in a psychology course.

Professor
Last month my favorite uncle paid me a surprise visit. I hadn't seen him in many years … The doorbell rang, I opened the door, and there was Uncle Pete. Now, I'm sure when I saw him I said something like: "Uncle Pete! What a surprise! How nice to see you!" Anyway, my wife was standing next to me and according to her—I wasn't really aware of this—my eyes got really wide and I broke into a huge big smile. She said I was actually jumping up and down, like a little boy. Well, anyway, later that evening Uncle Pete told me how very, very good he felt when he saw how happy I was to see him.

But compare that with this: my daughter … she's six … We were building a birdhouse together last week. And I was showing her how to use a hammer and nail. And of course, stupid me, I wasn't being very careful and I smashed my thumb with the hammer. Boy, did it hurt! I almost felt like screaming, but I didn't want to upset my daughter, so I said, "Don't worry, honey. It's nothing." Meanwhile, I was shaking my hand, as if that would stop my thumb from hurting, and my face was contorted in pain. My voice was trembling too. So even though I told my daughter I was OK, I'm sure she didn't believe me. Because she kept asking me if I was OK.

Narrator
Explain how the examples from the professor's lecture illustrate the relationship between verbal and nonverbal communication.

TRACK 18 TRANSCRIPT

Narrator
Now listen to a conversation between two students on campus.

Male student
Hi … good morning. Could you help me with something?

Female student
Um. Maybe. What's up?

Male student
Well, I'm a first-year student.

Female student
Everything going OK?

Male student
Actually no. Um, this is a little embarrassing—I think I left my class schedule back at my dorm.

Female student
Hmm. Not a good thing to do on the first day of classes.

Male student
Yeah. So I'm not sure where my class is. I think I remember it was supposed to be here in Smith Hall.

Female student
There's a computer for student use in the student center. You could go over there, look it up and check the room number. But you'd have to hurry.

Male student
Hmmm … That's not a bad idea … I could check my schedule for the whole rest of the day at the same time … I don't know where any of my other classes are either. But I don't want to be late … make a bad impression with the professor on the first day. It's actually my very first class—introduction to psychology …

Female student
Psychology? Oh, OK. You're definitely in the right building. And if it's

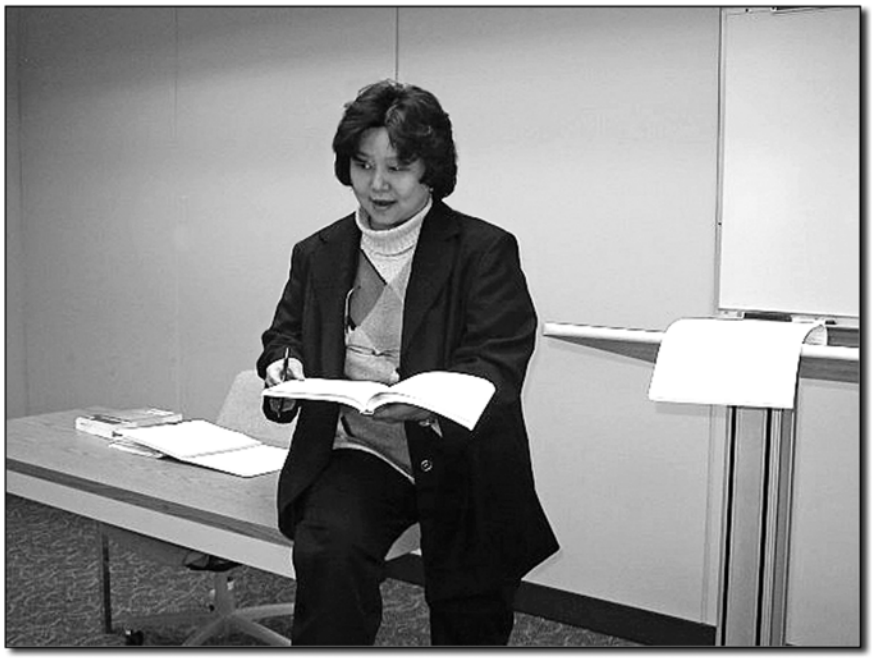
introduction to psychology, it's gonna be a big class, in which case it probably meets in a big lecture hall. There are only three lecture halls in the building—one on every floor. Just check each floor till you find yours. There's an elevator, so you should be able to move fast.

Male student
Yeah, but I don't know what the professor looks like or anything. How will I know whether it's my class or not? It'd be sort of embarrassing—sticking my head into each lecture hall asking if I was in the right place.

Female student
Well, you might luck out and find it the first time.

Narrator
Briefly summarize the problem the speakers are discussing. Then state which of the two solutions from the conversation you would recommend. Explain the reasons for your recommendation.

TRACK 19 TRANSCRIPT



Narrator
Listen to part of a talk in an art appreciation class.

Professor
In order for art to communicate—to appeal to the emotions or the intellect—it has to combine various *visual elements* to express meaning … or emotion. It's really the visual components of the work—things like color, texture, shape, lines—and how these elements work together that tell *us* something about the work. Artists combine and manipulate these visual elements to express a message or to create a mood.

Think about how a painter might use *color*, for example. You all know from experience that different colors appeal in different ways to the senses and can convey different meanings. An artist chooses certain colors to evoke a particular mood and make powerful statements. The color red, for example, is a strong color and can conjure up strong emotions … such as extreme joy, or excitement … or even anger. Blue, on the other hand, is considered a cool color. Blue colors tend to have a calming effect on viewers.

Another visual element important to art is texture. By texture, I mean the surface quality or "feel" of the work … its smoothness, or roughness, or softness…. Now, of course, in some types of art, the texture is physical—it can actually be touched by the fingers. But in painting, for example, texture can be visual. The way an artist paints certain areas of a painting can create the illusion of texture … an object's smoothness, or roughness, or softness. A rough texture can evoke stronger emotions and strength while a smooth texture is more calming and less emotional.

As I said earlier, artists often combine elements to convey a message about the work. Take a painting that, say, uses a lot of strong colors like reds and oranges and … and uses brushstrokes that are broad—wide, sweeping brushstrokes that suggest a rough texture. Well, these

elements together can convey a wilder, more chaotic emotion in the viewer than, more than in, say … a painting with tiny, smooth brushstrokes and soft or pale colors. Artists use these visual effects and the senses they arouse to give meaning to their work.

Narrator
Using points and examples from the lecture, explain the importance of visual elements in painting.

TRACK 20 TRANSCRIPT

Narrator
Now listen to part of a lecture on the topic you just read about.

Professor
Many scientists have problems with the arguments you read in the passage. They don't think those arguments prove that dinosaurs were endotherms.

Take the polar dinosaur argument. When dinosaurs lived, even the

polar regions where dinosaur fossils have been found were much warmer than today—warm enough during part of the year for animals that were not endotherms to live. And during the months when the polar regions were cold, the so-called polar dinosaurs could have migrated to warmer areas or hibernated like many modern reptiles do. So the presence of dinosaur fossils in polar regions doesn't prove the dinosaurs were endotherms.

Well, what about the fact that dinosaurs had their legs placed under their bodies, not out to the side, like a crocodile's? That doesn't necessarily mean dinosaurs were high-energy endotherms built for running. There's another explanation for having legs under the body: this body structure supports more weight. So with the legs under their bodies, dinosaurs could grow to a very large size. Being large had advantages for dinosaurs, so we don't need the idea of endothermy and running to explain why dinosaurs evolved to have their legs under their bodies.

OK, so how about bone structure? Many dinosaur bones do have Haversian canals, that's true, but dinosaur bones also have growth rings. Growth rings are a thickening of the bone that indicates periods of time when the dinosaurs weren't rapidly growing. These growth rings are evidence that dinosaurs stopped growing or grew more slowly during cooler periods. This pattern of periodic growth—ya know, rapid growth followed by no growth or slow growth and then rapid growth again—is characteristic of animals that are not endotherms. Animals that maintain a constant body temperature year round, as true endotherms do, grow rapidly even when the environment becomes cool.

TRACK 21 TRANSCRIPT

Narrator
Summarize the points made in the lecture, being sure to explain how

they challenge the specific points made in the reading passage.

TRACK 22 TRANSCRIPT

Narrator
Listen to a conversation between a student and a counselor at the university counseling center.

Student
Hi, thanks for seeing me on such short notice.

Counselor
No problem. How can I help?

Student
Well, I think I might've made a mistake coming to this school.

Counselor
What makes you say that?

Student

I'm a little overwhelmed by the size of this place. I come from a small town. There were only 75 of us in my high school graduating class. Everyone knew everyone; we all grew up together.

Counselor
So it's a bit of a culture shock for you, being one of 15,000 students on a big campus in an unfamiliar city.

Student
That's an understatement. I just can't get comfortable in class, or in the dorms, you know, socially.

Counselor
Hmm, well—let's start with your academics. Tell me about your classes.

Student
I'm taking mostly introductory courses, and some are taught in these huge lecture halls.

Counselor
And you're having trouble keeping pace with the material?

Student
No, in fact, I got an A on my first economics paper. It's just that, it's so impersonal. I'm not used to it.

Counselor
Are all your classes impersonal?

Student
Nah … It's just that, for example, in sociology yesterday, the professor asked a question. So I raised my hand … several of us raised our hands … and I kept my hand up because I did the reading and knew the answer. But the professor just answered his own question and continued with the lecture.

Counselor
Well, in a big room, it's possible he didn't notice you. Maybe he was trying to save time. In either case, I wouldn't take it personally.

Student
I suppose. But I just don't know how to, you know, *distinguish* myself.

Counselor
Why not stop by his office during office hours?

Student
That wouldn't seem right, y'know … taking time from other students who need help.

Counselor
Don't say that. That's what office hours are for. There's no reason you couldn't pop in to say hi, to, uh, to make yourself known. If you're learning a lot in class, let the professor know. Wouldn't *you* appreciate positive feedback if *you* were a professor?

Student
You're right. That's a good idea.

Counselor
OK, uh, let's turn to your social life. How's it going in the dorms?

Student
I don't have much in common with my roommate or anyone else I've met so far. Everyone's into sports, and I'm more artsy, you know, into music. I play the cello.

Counselor
Ahhh. Have you been playing long?

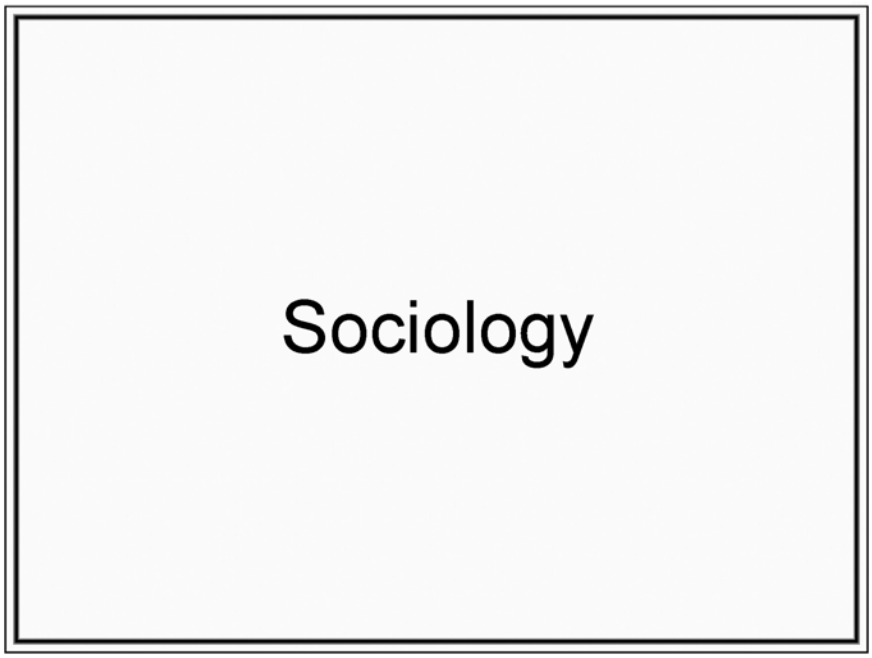
Student
Since age 10. It's a big part of my life. At home, I was the youngest member of our community orchestra.

Counselor
You're not going to *believe* this! There's a string quartet on campus—all students. And it so happens the cellist graduated last year. They've been searching high and low for a replacement, someone with experience. Would you be interested in auditioning?

Student
Absolutely! I wanted to get my academic work settled before pursuing my music here, but I think this would be a good thing for me. I guess if I really want to fit in here, I should find people who love music as much as I do. Thank you!

Counselor
My pleasure.

TRACK 23 TRANSCRIPT

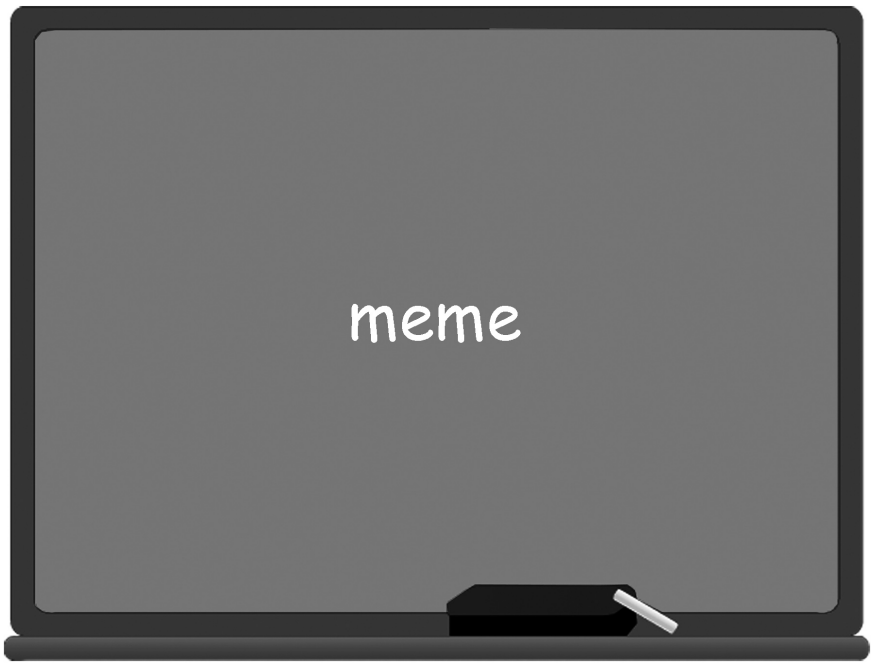


Narrator
Listen to part of a lecture in a sociology class.

Professor

Have you ever heard the one about alligators living in New York sewers? The story goes like this: a family went on vacation in Florida, and bought a couple of baby alligators as presents for their children, then returned from vacation to New York, bringing the alligators home with them as pets. But the alligators would escape and find their way into the New York sewer system where they started reproducing, grew to huge sizes and now strike fear into sewer workers. Have you heard this story? Well, it isn't true and it never happened, but despite that, the story's been around since the 1930s.

Or how about the song "Twinkle, twinkle, little star"? You know "Twinkle, twinkle, little star, how I wonder what you are …" Well, we've all heard this song. Where am I going with this? Well, both the song and the story are examples of memes, and that's what we'll talk about, the theory of memes.



A meme is defined as a piece of information copied from person to person. By this definition, most of what you know … ideas, skills, stories, songs … are memes. All the words you know, all the scientific theories you've learned, the rules your parents taught you to observe … all are memes that have been passed on from person to person.

So what? … you may say. Passing on ideas from one person to another is nothing new … Well, the whole point of defining this familiar process as transmission of memes is so that we can explore its analogy with the transmission of *genes*.

As you know, all living organisms pass on biological information through the genes. What's a gene? A gene is a piece of biological information that gets copied, or replicated, and the copy, or replica, is passed on to the new generation. So genes are defined as replicators …

Genes are replicators that pass on information about properties and characteristics of organisms. By analogy, *memes* also get replicated and in the process pass on cultural information from person to person, generation to generation. So memes are also replicators. To be a successful replicator, there are three key characteristics: longevity, fecundity, and fidelity. Let's take a closer look …

First, longevity. A replicator must exist long enough to be able to get copied and transfer its information. Clearly, the longer a replicator survives, the better its chances of getting its message copied and passed on. So longevity is a key characteristic of a replicator. If you take the alligator story, it can exist for a long time in individual memory—let's say my memory. I can tell you the story now, or ten years from now. The same with the "Twinkle, twinkle" song. So these memes have longevity, because they're memorable, for one reason or another.

Next, fecundity. Fecundity is the ability to reproduce in large numbers. For example, the common housefly reproduces by laying several thousand eggs. So each fly gene gets copied thousands of times. Memes? Well, they can be reproduced in large numbers as well. How many times have you sung the “Twinkle, twinkle” song to someone? Each time you replicated the song—and maybe passed it along to someone who didn’t know it yet, a small child maybe.

And finally, fidelity. Fidelity means accuracy of the copying process. We know fidelity is an essential principle of genetic transmission. If a copy of a gene is a bit different from the original, that's called a *genetic* mutation, and mutations are usually bad news. An organism often cannot survive with a mutated gene—and so a gene usually cannot be passed on unless it's an exact copy. For *memes*, however, fidelity is not always so important. For example, if you tell someone the alligator story I told you today, it probably won't be word for word exactly as I said it. Still, it will be basically the same story, and the person who hears the story will be able to pass it along. Other memes are replicated with higher fidelity, though—like the "Twinkle, twinkle" song? It had the exact same words twenty years ago as it does now. Well, that's because we see songs as something that has to be performed accurately each time. If you change a word, the others will usually bring you in line. They'll say, "That's not how you sing it," right?

So, you can see how looking at pieces of cultural information as replicators, as memes, and analyzing them in terms of longevity, fecundity, and fidelity, we can gain some insight about how they

spread, persist, or change.

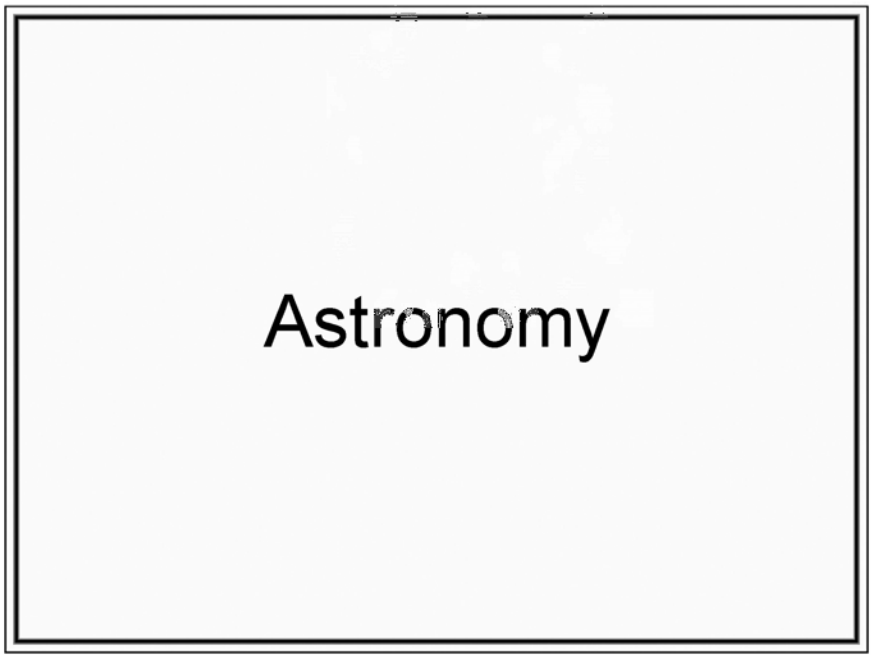
TRACK 24 TRANSCRIPT

Narrator
Why does the professor say this:

Professor
If you change a word, the others will usually bring you in line. They'll say, "That's not how you sing it," right?

TRACK 25 TRANSCRIPT

Note: The actual lecture contains color images. The colors from one image are discussed by the professor. You do not need to see the colors to understand the lecture or to answer the questions.



Narrator
Listen to part of a lecture in an astronomy class.

Professor
Last week, we covered some arguments *against* going back to the Moon. But there are compelling reasons *in favor of* another Moon landing, too, um, not the least of which is trying to pinpoint the Moon's age. We could do this, in theory, by studying an enormous impact crater known as the South Pole–Aitken Basin. Ah, it's located in the Moon's south polar region. But, since it's on the *far* side of the Moon, it can only be seen from space. Here's an image of … we'll call it the SPA Basin.

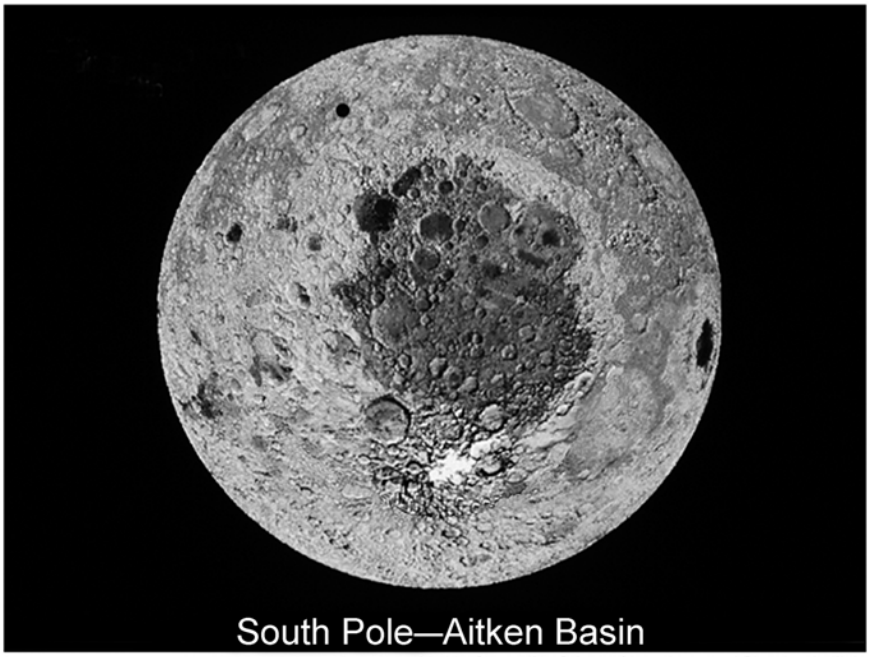


Image provided by Clementine Science Group, Lunar and Planetary Institute

This color-coded image of the SPA Basin—ahh, those aren't its actual colors, obviously—uh, this image is from the mid-nineties, from an American spacecraft called Clementine. Um, unlike earlier lunar missions, Clementine *didn't* orbit *only* around the Moon's *equator*. Its orbits enabled it to send back data to create *this* topographical map of … well, the gray-and-white area toward the bottom is the *South Pole*. The purples and blues in the middle correspond to low elevations—the SPA Basin itself. Uh, the oranges and reds around it are higher elevations. The Basin measures an amazing 2,500 kilometers in diameter, and its average depth is 12 kilometers. That makes it the biggest known crater in our *solar system*. And it may well be the *oldest*.

Y'know, planetary researchers *love* studying deep craters to learn about the impacts that created them, um, how they redistributed pieces of the planet's crust. And, in *this* case, we especially want to know if any of the mantle, the layer *beneath* the crust, was exposed by the impact. Not everyone agrees, but some experts are *convinced* that whatever created the SPA Basin *did* penetrate the Moon's mantle. And we need to find out, because much more than the crust, the

mantle contains information about a planet's or moon's *total composition*. And that's *key* to understanding planet formation. Um, Diane?

Female student
So the only way to know the Basin's age is to study its rocks directly?

Professor
Well, from radio survey data, we know that the Basin contains lots of smaller craters. So it must be *really* old—about 4 billion years, give or take a few hundred million years. But that's not very precise. If we had *rock samples* to study, we'd know whether these small craters were formed by impacts during the final stages of *planetary formation*, or if they resulted from *later* meteor showers.

Female student
But if we know *around* how old the Basin is, I'm not sure that's reason enough to go to the Moon again.

Professor
Oh, but such crude estimates … mmm, we can do better than that!

Besides, there's *other* things worth investigating. Like, is there water ice on the Moon? Clementine's data indicated that the wall of a south polar crater was more *reflective* than expected. So *some* experts think there's probably ice there. Also, data from a later mission indicate significant concentrations of *hydrogen*, and by inference, *water*, less than a meter underground at both poles.

Male student
If there's water, how'd it get there? Underground rivers?

Professor
We think meteors that crashed into the Moon, or tails of passing comets, may have introduced water molecules. Any water molecules that found their way to the floors of craters near the Moon's poles, that water would be perpetually frozen because the floors of those craters are always in shadow. Uh, furthermore, if the water ice was mixed in with rock and dust, it'd be protected from evaporation.

Female student
So, are you saying there might be primitive life on the Moon?

Professor
Uh, that's not my point at all! Um, OK, say there *is* water ice on the Moon. That would be of very *practical* value for a future Moon base for astronauts. Uh, water ice could be melted and purified for *drinking.* It could also be broken down into its component parts—oxygen and hydrogen. Oxygen could be used to breathe. And hydrogen could be turned into *fuel*, rocket fuel. So, water ice could enable the creation of a self-sustaining Moon base someday, a mining camp, perhaps, or, uh, a departure point for further space exploration.

Male student
But hauling tons of equipment to the Moon to make fuel and build a life-support system for a Moon base … wouldn't that be too expensive?

Professor

A *permanent* base, uh, may be a ways off, but we shouldn't have to wait for *that*. The dust at the bottom of the SPA Basin really *does* have a fascinating story to tell. What I wouldn't give for a few *samples* of it!

TRACK 26 TRANSCRIPT

Narrator
Listen again to part of the lecture. Then answer the question.

Female student
But if we know *around* how old the Basin is, I'm not sure that's reason enough to go to the Moon again.

Professor
Oh, but such crude estimates …

Narrator
What does the professor imply when he says this:

Professor
Oh, but such crude estimates …

TRACK 27 TRANSCRIPT

Narrator
Listen to a conversation between a student and a professor.

Student
Hi. I was wondering if could talk with you about the assignment in the Film Theory class?

Professor
Of course, Jill.

Student
It seems that pretty much everyone else in the class gets what they're supposed to be doing, but *I'm* not so sure.

Professor
Well, the class *is* for students who are really serious about film. You must have taken film courses before?

Student
Yeah, in high school, Film Appreciation.

Professor

Hmm, I wouldn't think that'd be enough. Did you concentrate mainly on form, or content?

Student
Oh, definitely content. We'd watch, say, *Lord of the Flies*, and then discuss it.

Professor
Oh, *that* approach … treating film as literature, ignoring what makes it unique …

Student
I liked it, though …

Professor
Sure, but *that* kind of class … well, I'm not surprised you're feeling a little lost. Y'know, we have two introductory courses that are supposed to be taken before you get to *my* course—one in film art, techniques … technical stuff … and another in film history. So students in the class *you're* in should be pretty far along in film studies. In fact, usually the system blocks anyone trying to sign up for a class they shouldn't be taking, who hasn't taken the courses you're required to do *first*, as *prerequisites*.

Student
Well, I did have a problem with that, but I discussed it with one of your office staff and she gave me permission.

Professor
Of course. No matter how many times I tell them, they just keep on … Well, for your own good, I'd really suggest dropping back and starting at the usual place …

Student
Yes, but … I've already been in this class for four weeks! I'd hate to just drop it now, especially since I find it so different, so interesting.

Professor
I guess *so*—frankly, I can't believe you've lasted this long! These are pretty in-depth theories we've been discussing, and you've been doing OK so far, I guess. But, still, the program's been designed to progress through certain stages. Like any other professional training, we build on previous knowledge.

Student
Then maybe you could recommend some extra reading I can do, to catch up?

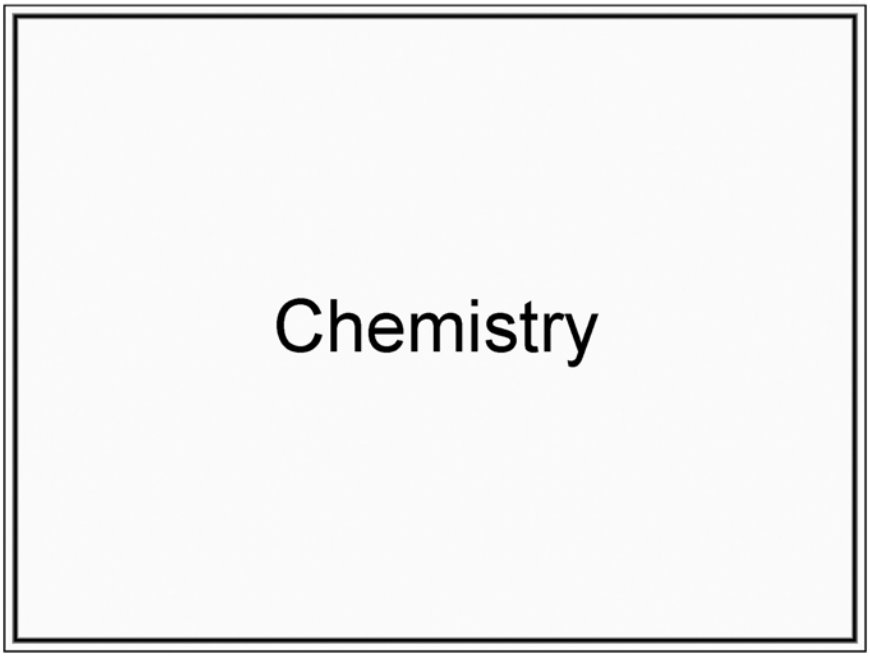
Professor
Well, are you intending to study film, as your main concentration?

Student
No. No, I—I'm just interested; I'm actually in marketing, but there seems to be a connection …

Professor
Oh, well, in *that* case … if you're taking the course just out of *interest* … I mean, I'd still highly recommend signing up for the introductory courses at *some* point. But in the *meantime*, there's no harm, I guess, in trying to keep up with *this* class. The interest is clearly there. Uh, instead of any extra reading just now, though, you *could* view some of the *old* introductory lectures—we have 'em on video—*that'd* give you a better handle on the subject. It's still a pretty tall order, and we'll be moving right along, so you'll really need to stay on top of it.

Student
OK, I've been warned. Now, could I tell you about my idea for the assignment …?

TRACK 28 TRANSCRIPT



Narrator
Listen to part of a lecture in a chemistry class.

Professor
OK, I know you all have a lot of questions about this lab assignment that's coming up, so I'm gonna take a little time this morning to

discuss it.

So you know the assignment has to do with *spectroscopy,* right? And your readings should help you get a good idea of what that's all about. But let's talk about spectroscopy a little now, just to cover the basics.

What is spectroscopy? Well, the simplest definition I can give you is that spectroscopy is the study of the interaction between *matter* and *light*. Now visible light consists of different *colors*, or *wavelengths*, which together make up what's called a *spectrum*—a band of colors, like you see in a rainbow. And *all* substances—all forms of matter—can be distinguished according to what wavelengths of light they *absorb* and which ones they *reflect*. It's like—well, every element has what we'd call its own *spectral signature*; if we can *read* that signature, we can identify the element. And that's exactly what spectroscopy does.

Now *laser* spectroscopy, which is the focus of your assignment, works by measuring, very precisely, what parts of the spectrum are *absorbed* by different substances. And it has applications in a lot of different disciplines. And your assignment will be to choose a discipline that interests you and devise an experiment. For example, I'm gonna talk about *art*—I'm *interested* in art. And to me, it's interesting how spectroscopy is used to *analyze* art.

Let's say a museum curator comes to you with a problem. She's come across this painting that appears to be an original—say a Rembrandt—and she wants to acquire it for her museum. But she's got a problem: She's not *absolutely* certain it's an original. So what do you do? How do you determine whether the painting's authentic?

OK, think about the scientific process. You've got a question: Is the painting a Rembrandt? So first, you'd need to make a list of characteristics the painting would have to have to *be* a Rembrandt. *Then* you have to discover whether the painting in question *has* those characteristics.

So first of all, you'll need to know the *techniques* Rembrandt used when he applied paint to canvas—his brushstrokes, how thickly he applied his paint—so you'd need to work with an art historian who has expert knowledge of Rembrandt's style. You'd have to know *when* he created his paintings, um, what *pigments* he used—in other words, what *ingredients* he used to make different colors of paint. 'Cause the ingredients used in paints and binding agents—plus varnishes, finishes, what have you—have changed over time. Since you're trying to verify if it's a Rembrandt, the ingredients in the pigment would need to have been used during Rembrandt's lifetime, in the seventeenth century. And that's where *chemistry* comes in. You've got to find out what's *in* those pigments—learn their composition. And that requires lab work—detective work, really—in a word, *spectroscopy*.

So how do we use spectroscopy? Well, we put an infrared microscope—a spectroscope—on tiny, tiny bits of paint, and using ultraviolet light, we can see the spectral signature of each component part of the pigment. *Then* we compare these signatures with those of particular elements, like zinc or lead, to determine what the pigment was made of.

So you can see why this type of analysis requires a knowledge of the history of pigments, right? How and when they were made. Say we determine a pigment was made with *zinc*, for example. We know the spectral signature of zinc, and it matches that of the paint sample. We *also* know that zinc wasn't discovered until the eighteenth century. And since Rembrandt lived during the *seventeenth* century, we know *he* couldn't've painted it.

Now, spectroscopy has a very distinct advantage over previous methods of analyzing artworks because it's not *invasive*—you don't have to remove *big* chips of paint to do your analysis, which is what other methods require. All you do is train the microscope on tiny *flecks* of paint and analyze them.

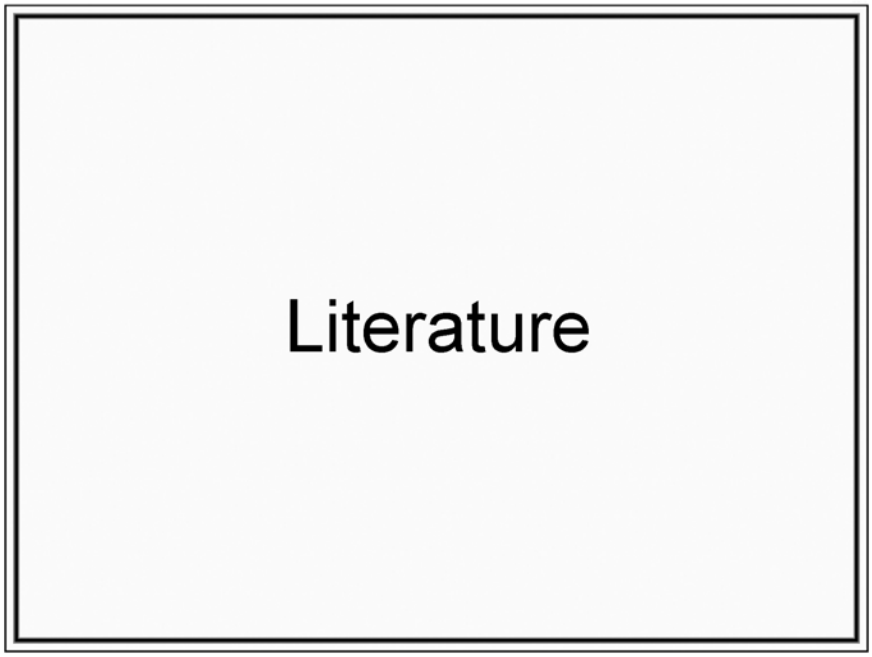
Now, a word or two about restoration. Sometimes, original artworks *appear* questionable or inauthentic because they've had so many restorers add touch-up layers to cover up *damage*—damage from the paint having deteriorated over time. Well, spectroscopy can reveal the composition of those touch-up layers too, so we can find out when they were applied. Then, if we want to undo some *bad* restoration attempts, we can determine what kind of process we can use to *remove* them—to dissolve the paint and uncover the original.

TRACK 29 TRANSCRIPT

Narrator
Why does the professor say this:

Professor
Now, a word or two about restoration.

TRACK 30 TRANSCRIPT



Narrator
Listen to part of a lecture in a literature class.

Professor
Now, we can't really talk about fairy tales without first talking about *folk* tales … because there's a strong connection between these two genres, these two types of stories. In fact, many fairy tales started out as folktales.

So, what's a *folk* tale? How would you characterize them? Jeff?

Male student
Well, they're old stories, traditional stories. They were passed down orally within cultures, from generation to generation, so they changed a lot over time; I mean, every storyteller, or maybe every town, might have had a slightly different version of the same folktale.

Professor
That's right, there's *local difference,* and that's why we say folktales are communal.

By “communal,” we mean they reflect the traits and the concerns of a particular community at a particular time. So essentially the same tale could be told in different communities, with certain aspects of the tale adapted to fit the specific community. Um, *not* the plot … the details of what *happens* in the story would remain constant; that was the thread that held the tale together. But all the other elements, like the location or characters, might be modified for each audience.

OK, so what about *fairy* tales? They also are found in most cultures, but how are they different from folktales? I guess the first question is what is a fairy tale? And don’t anyone say, “a story with a fairy in it.” Because we all know that very few fairy tales actually have those tiny magical creatures in them. But what else can we say about them? Mary?

Female student
Well, they seem to be less realistic than folktales. Like they have something improbable happening—a frog turning into a prince, say. Oh, that’s another common element, royalty … a prince or princess. And fairy tales all seem to take place in a location that’s nowhere and

everywhere at the same time.

Professor
What's the line, ah—how do all those stories start? "Once upon a time, in a faraway land …" In the case of *folk* tales, each storyteller would specify a particular location and time, though the time and location would differ for different storytellers. With *fairy* tales, however, the location is generally unspecified, no matter who the storyteller is … that "land faraway …" We'll come back to this point in a few minutes.

Male student
Um, I thought a fairy tale was just the written version of an oral folktale.

Professor
Well, not exactly, though that is how many fairy tales developed. For example, in the late eighteenth century, the Grimm brothers traveled throughout what's now Germany recording local *folk* tales. These were eventually published—as *fairy* tales—but not before undergoing a process of evolution.

Now, a number of things happen when an oral tale gets written down. First, the language changes, it becomes more formal, more standard —some might say less colorful. It's like the difference in your language depending on whether you're talking to someone or writing them a letter.

Second, when an orally transmitted story is written down, an authoritative version, with a recognized author is created. The communal aspect gets lost; the tale no longer belongs to the community; it belongs to the world, so to speak. Because of this, elements like place and time can no longer be tailored to suit a particular audience, so they become less identifiable, more generalizable to any audience.

On the other hand, descriptions of characters and settings can be developed more completely. In *folk* tales, characters might be identified by a name, but you wouldn't know anything more about them. But in *fairy* tales, people no longer have to remember plots—they're written down, right? So more energy can be put into other elements of the story, like character and setting. So you get more details about the characters, and about where the action takes place, what people's houses were like, whether they're small cabins or grand palaces … And it's worth investing that energy because the story, now in book form, isn't in danger of being lost, those details won't be forgotten. If a *folk* tale isn't repeated by each generation, it may be lost for all time. But with a fairy tale, it's always there in a book, waiting to be discovered again and again.

Another interesting difference involves the change in audience—who the stories are meant for. Contrary to what many people believe today, folktales were originally intended for adults, not for children. So why is it that fairy tales seem targeted toward children nowadays?

TRACK 31 TRANSCRIPT

Narrator
Listen again to part of the lecture. Then answer the question.

Female student
And fairy tales all seem to take place in a location that's nowhere and everywhere at the same time.

Professor
What's the line, ah—how do all those stories start? "Once upon a time, in a faraway land …"

Narrator
Why does the professor say this:

Professor
What's the line, ah—how do all those stories start? "Once upon a time, in a faraway land …"

TRACK 32 TRANSCRIPT

Narrator
Talk about a place you enjoyed going to or visiting when you were a child. Describe the place. Explain why you enjoyed it.

TRACK 33 TRANSCRIPT

Narrator
Do you agree or disagree with the following statement? Why or why not? Use details and examples to explain your answer.

It is more important to study math or science than it is to study art or literature.

TRACK 34 TRANSCRIPT

Narrator
The university has announced a new policy regarding dining services. Read an article about it in the student newspaper. You have 50 seconds to read the article. Begin reading now.

TRACK 35 TRANSCRIPT

Narrator
Now listen to two students discussing the article.

Female student
Did you see that article?

Male student
Yeah—and it sounds like a great idea. It's really good for the students in that program.

Female student

Don’t they cook in class anyway?

Male student
Well, yeah, they do … but my cousin was in the program a few years ago, and she said that it’s very different to cook for a lot of people in that kind of atmosphere than to cook for classmates.

Female student
Why is that?

Male student
Well, in class you can take your time. But, cooking for more people, there’s more pressure—I mean, you’re in a rush, people are waiting … and it might be easy to make a mistake with all that stress …

Female student
Then they’ll think you’re a bad chef, right?

Male student
Absolutely!

Female student
So, OK, it’s good practice. But what about the extra cost?

Male student
Well, look at it this way. You’ve eaten at some of the fancier restaurants in town, right?

Female student
Yeah, there are some great places to eat around here.

Male student
Well, these students … they’ll be making fantastic meals. And it’s gonna be cheaper than going out to one of those restaurants.

Female student
Much cheaper actually …

Male student
So, you know, it'll be worth it. The meals will be as good as the ones in those expensive restaurants.

Narrator
The man expresses his opinion about the plan described in the article. Briefly summarize the plan. Then state his opinion about the plan and explain the reasons he gives for holding that opinion.

TRACK 36 TRANSCRIPT

Narrator
Read the passage about target marketing. You will have 45 seconds to read the passage. Begin reading now.

TRACK 37 TRANSCRIPT

Narrator
Now listen to part of a lecture on this topic in a marketing class.

Professor
Nowadays, something you notice more and more is television commercials that are made specifically for certain television programs. So, let's say a company wants to sell a telephone … a cell phone. Now, during TV shows that young people watch—you know, shows with pop music or teen serials—they create a commercial that emphasizes how fun the phone is. You know, the phone has bright colors, and they show kids having a good time with their friends. And, well, the company wants the kids watching TV at this time to want to buy this phone—this phone that's made especially for them.

But, the same company will make a different commercial to be shown during, say, a program about business or a business news show. Now, for this group of people, businesspeople, the company will have to show how efficient their phone is, how it can handle all business easily and maybe even save money. And here's the thing—it's basically the same phone; the company has just made two different commercials to appeal to different groups of people.

Narrator
Using the professor's examples, explain the advertising technique of target marketing.

TRACK 38 TRANSCRIPT

Narrator
Listen to a conversation between two students.

Male student
Susan! What happened to your arm?

Female student
It's my wrist, actually—I sprained it last weekend. And I'm kind of upset about it, because I'm supposed to play the violin in my string quartet's big concert next week. We've been practicing for weeks. And we've already sold a bunch of tickets.

Male student
Oh, sorry to hear that. What are you gonna do?

Female student
Well, I was thinking about trying to play anyway. I mean, I really don't want to let the other three group members down. Plus the doctor said my wrist should be feeling better by then.

Male student
OK, so … problem solved, right?

Female student
Not exactly—I'm worried that I'm gonna be out of practice. Like, I haven't been able to play the violin since I sprained my wrist. What if I don't play well? I'd make the rest of the group sound bad.

Male student
Why don'tcha get somebody else to take your place?

Female student
Well, there's only one other person I know of who could do it, and that's Jim. He's a great violinist, and I'm sure he'd say yes…. The thing is, he's not very reliable. I mean, I'm in the orchestra with him and he's always showing up late for rehearsals.

Male student
Oh … so you're not sure you can depend on him.

Female student
Exactly. And we have less than a week left to rehearse for the concert. We'd *really* need him to show up on time for all our rehearsals.

Narrator
Briefly summarize the problem the speakers are discussing. Then state which of the two solutions from the conversation you would recommend. Explain the reasons for your recommendation.

TRACK 39 TRANSCRIPT

Narrator
Now listen to part of a lecture in a psychology class.

Professor
Why do we do the things we do? What drives us to participate in certain activities … to buy a certain car … or even to choose a certain career? In other words, what motivates us to do what we do?

Well, in studies of motivation, psychologists distinguish between two very different types. Our reasons for doing something, our motivations, can be *extrinsic*—in other words, based on some kind of *external* reward like praise or money … or they can be *intrinsic* … meaning we engage in the activity because it pleases us *internally*. Both create strong forces that lead us to behave in certain ways; however, intrinsic motivation is generally considered to be more long-lasting than the other.

As I said, extrinsic motivation is … *external*. It's the desire to behave in a certain way in order to obtain some kind of external reward. A child, for example, who regularly does small jobs around the house

does them not because she enjoys taking out the garbage or doing the dishes but because she knows if she does these things, she'll be given a small amount money for doing them. But how motivated would the child be to continue doing the work if her parents suddenly stopped giving her money for it?

With intrinsic, or internal, motivation we want to do something because we enjoy it, or get a sense of accomplishment from it. Most people who are internally motivated get pleasure from the activity … so they just feel good about doing it. For example, I go to the gym several times a week. I don't go because I'm training for a marathon or anything. I just enjoy it. I have more energy after I exercise and I know it's good for my health so it makes me feel good about myself. And that's what's kept me going there for the past five years.

Narrator
Using points and examples from the talk, explain the two types of motivation.

TRACK 40 TRANSCRIPT

Narrator
Now listen to part of a lecture on the topic you just read about.

Professor
Unfortunately, none of the arguments about what the Chaco great houses were used for is convincing.

First—sure, *from the outside* the great houses look like later Native American apartment buildings, but the *inside* of the great houses casts serious doubt on the idea that many people lived there. I'll explain. If hundreds of people were living in the great houses, then there would have to be many *fireplaces* where each family did its daily cooking. But there're very *few* fireplaces. In one of the largest great houses there were fireplaces for only around ten families. Yet there are enough *rooms* in the great house for more than a *hundred* families. So the primary function of the houses couldn't have been residential.

Second, the idea that the great houses were used to store grain maize is unsupported by evidence. It may *sound* plausible that large, empty rooms were used for storage, but excavations of the great houses have *not* uncovered many traces of maize *or* maize containers. If the great houses were used for storage, why isn't there more spilled maize on the floor? Why aren't there more remains of big containers?

Third, the idea that the great houses were ceremonial centers isn't well supported either. Ya know that mound at Pueblo Alto? It contains lots of other materials besides broken pots, stuff you wouldn't expect from ceremonies. For example, there're large quantities of building materials—sand, stone, even construction tools. This suggests that the mound is a just a *trash heap* of construction material, stuff that was thrown away or not used up when the house was being built. The pots in the pile could be regular trash, too, left over from the meals of the construction workers. So the Pueblo Alto mound is *not* good evidence that the great houses were used for special ceremonies.

TRACK 41 TRANSCRIPT

Narrator
Summarize the points made in the lecture, being sure to explain how they cast doubt on the specific theories discussed in the reading passage.

TRACK 42 TRANSCRIPT

Narrator
Listen to a conversation between a student and an employee in the university's career services office.

Student
Hi. Do you have a minute?

Administrator
Sure. How can I help you?

Student

I have a couple of questions about the career fair next week.

Administrator
OK, shoot.

Student
Um, well, are seniors the only ones who can go? I mean, you know, they're finishing school this year and getting their degrees and everything … and, well, it seems like businesses would want to talk to them and not first-year students like me …

Administrator
No, no. The career fair is open to all our students and we encourage anyone who's interested to go check it out.

Student
Well, that's good to know.

Administrator
You've seen the flyers and the posters around campus, I assume.

Student
Sure! Can't miss 'em. I mean, they all say where and when the fair is … just not who should attend.

Administrator
Actually, they do. But it's in the small print. We should probably make that part easier to read, shouldn't we? I'll make a note of that right now. So, do you have any other questions?

Student
Yes, actually I do now. Um, since I'd only be going to familiarize myself with the process—you know, "check it out"—I was wondering if there's anything you'd recommend that I do to prepare.

Administrator
That's actually a very good question. As you know, the career fair is

generally an opportunity for local businesses to recruit new employees and for soon-to-be graduates to have interviews with several companies they might be interested in working for. Now, in your case, even though you wouldn't be looking for employment right now, it still wouldn't hurt for you to prepare much like you would if you were looking for a job.

Student
You mean like get my resume together and wear a suit?

Administrator
That's a given. I was thinking more along the lines of doing some research. The flyers and posters list all the businesses that are sending representatives to the career fair. Um, what's your major, or do you have one yet?

Student
Well, I haven't declared a major yet but I'm strongly considering accounting. See, that's part of the reason I want to go to the fair … to help me decide if that's what I really want to study …

Administrator
That's very wise. Well, I suggest that you get on the computer and learn more about the accounting companies, in particular, that will be attending. You can learn a lot about companies from their Internet Web sites. Then prepare a list of questions.

Student
Questions … hmm. So in a way I'll be interviewing them?

Administrator
That's one way of looking at it. Think about it for a second. What do you want to know about working for an accounting firm?

Student
Well, there's the job itself … and salary, of course … and, um, working conditions … I mean, would I have an office or would I work in a big

room with a zillion other employees? And … um … and maybe about opportunities for advancement …

Administrator
See? Those are all important things to know. After you do some research you'll be able to tailor your questions to the particular company you're talking to.

Student
Wow, I'm glad I came by here! So, it looks like I've got some work to do.

Administrator
And if you plan on attending future career fairs, I recommend you sign up for one of our interview workshops.

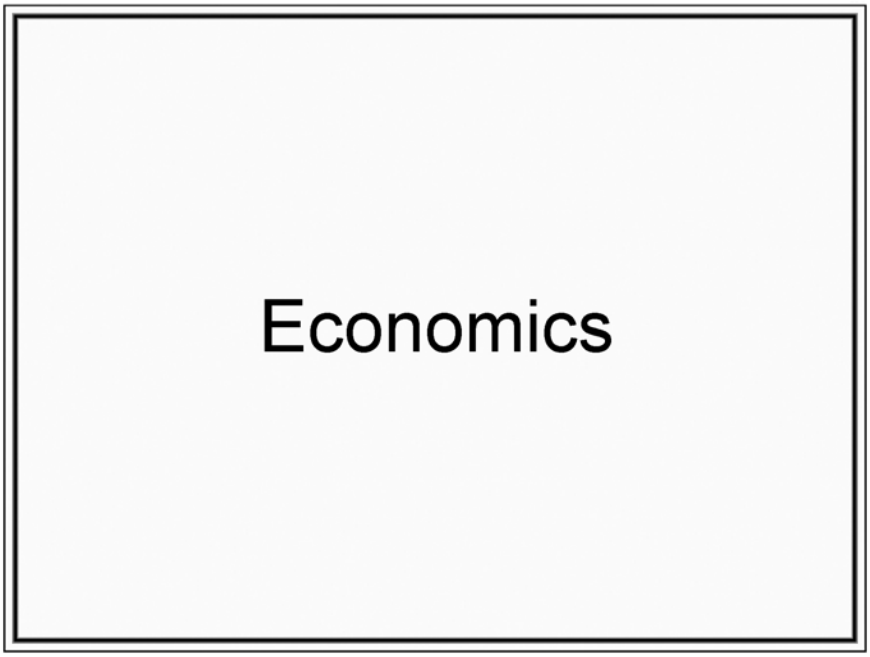
Student
I'll do that.

TRACK 43 TRANSCRIPT

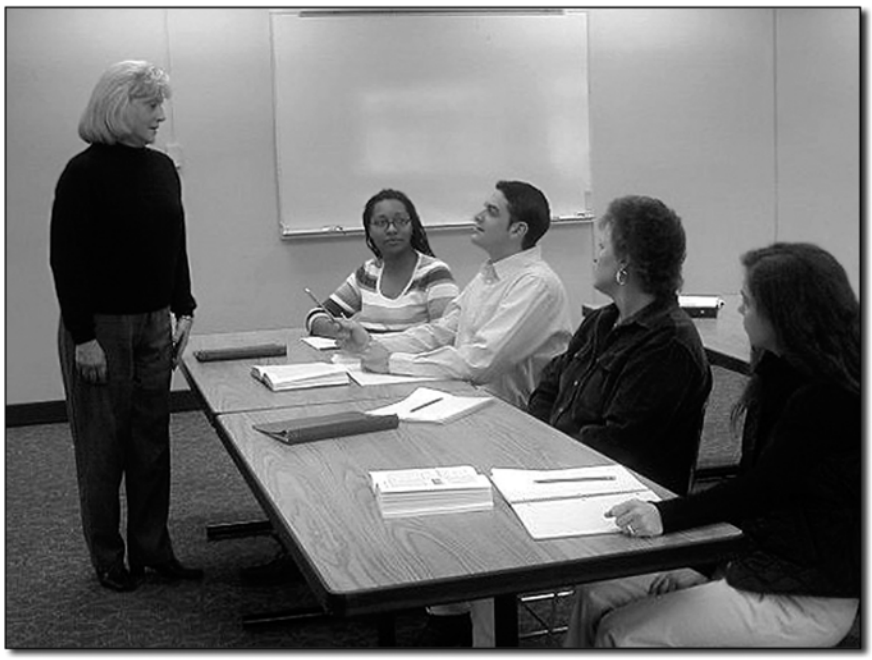
Narrator
Why does the student say this:

Student
So, it looks like I've got some work to do.

TRACK 44 TRANSCRIPT



Narrator
Listen to part of a lecture in an economics class.



Professor
Now, when I mention the terms “boom” and “bust,” what does that bring to mind?

Male student
The dot-com crash of the ’90s!

Professor
OK. The *boom* in the late 1990s when all those new Internet companies sprang up and were then sold for huge amounts of money. Then the *bust* around 2000 … 2001, when many of those same Internet companies went out of business. Of course, booms aren’t *always* followed by busts—we’ve certainly seen times when local economies expanded rapidly for a while then went back to a normal pace of growth. But, there’s a type of rapid expansion, what might be called a “hysterical” or irrational boom that pretty much always leads to a bust. See, people often *create* and *intensify* a boom when they get carried away by some new industry that seems like it’ll make ’em lots of money, fast. You’d think that by the ’90s, people would’ve learned from the past. If they did—well, look at *tulips*.

Male student
Tulips …? You mean, like, the flower?

Professor
Exactly. For instance, do you have any idea where tulips are from? Originally, I mean.

Male student
Well, the Netherlands, right?

Professor
That’s what *most* people think—but no, they’re not native to the Netherlands, or even Europe. Tulips actually hail from an area the Chinese call the “Celestial Mountains” in central Asia—a very *remote* mountainous region.

It was Turkish nomads who first discovered tulips and spread them slowly westward. Now, around the sixteenth century, Europeans were traveling to Istanbul in Turkey as merchants and diplomats. And the Turks often gave the Europeans tulip bulbs as gifts, which they would carry home with them. For the Europeans, tulips were totally unheard of, a great novelty. The first bulbs to show up in the Netherlands, the merchant who received them roasted and ate them—he thought they were a kind of onion.

It turns out that the Netherlands was an ideal country for growing tulips. It had the right kind of sandy soil, for one thing, but also it was a wealthy nation with a growing economy, willing to spend lots of money on new, exotic things—plus the Dutch had a history of gardening. Wealthy people would compete, spending enormous amounts of money to buy the rarest flowers for their gardens.

Soon tulips were beginning to show up in different colors as growers tried to breed them specifically for colors which would make them even more valuable, but they were never completely sure what they would get. Some of the most prized tulips were white with purple

streaks or red with yellow streaks on the petals—even a dark purple tulip that was very much prized. What happened then was a craze for these specialized tulips. We call that craze “tulip mania.”

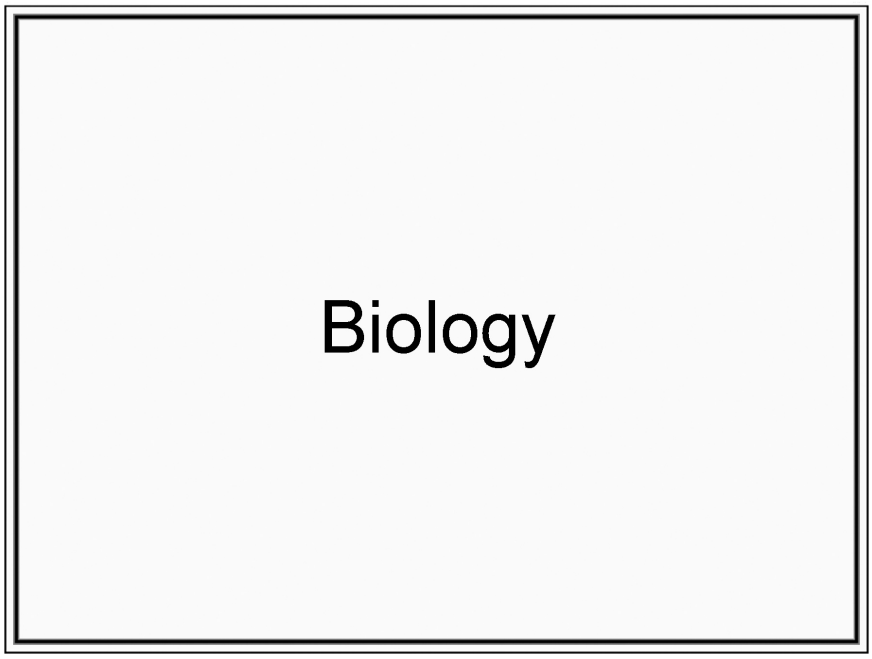
So—here we’ve got all the *conditions* for an-an *irrational* boom: a prospering economy, so more people had more disposable income—money to spend on luxuries—*but* they weren’t experienced at *investing* their new wealth. Then along comes a thrilling new commodity—sure, the first specimens were just plain old red tulips, but they could be bred into some extraordinary variations—like that dark purple tulip. And finally, you have an *unregulated* marketplace—no government constraints—where prices could explode. And explode they did, starting in the 1630s.

There was always much more demand for tulips than supply. Tulips didn’t bloom frequently like roses; tulips bloomed *once* in the early spring and that was it for the year. Eventually, specially bred, multicolored tulips became so valuable … Well, according to records, one tulip bulb was worth 24 tons of wheat or a thousand pounds of cheese. One particular tulip bulb was sold in exchange for a small ship! In other words, tulips were literally worth their weight in gold.

As demand grew, people began selling *promissory* notes guaranteeing the *future* delivery of prized tulip bulbs. The buyers of these pieces of paper would resell the notes at marked-up prices. These promissory notes kept changing hands—from buyer to buyer—until the tulip was ready for delivery. But it was all pure *speculation*, because, as I said, there was no way to know if the bulb was really going to produce the variety, the color, that was promised. But that didn’t matter to the owner of the note, the owner only cared about having that piece of paper, so it could be traded later at a profit. And people were *borrowing*—mortgaging their homes, in many cases—to obtain those bits of paper because they were sure they’d found an easy way to make money.

So now you've got all the ingredients for a huge bust—and bust it did, when one cold February morning in 1637, a group of bulb traders got together and discovered that suddenly there were no bidders—nobody wanted to buy. Panic spread like wildfire, and the tulip market collapsed totally.

TRACK 45 TRANSCRIPT



Narrator
Listen to part of a lecture in a biology class.

Professor
OK, I have an interesting plant species to discuss with you today. Uh, it's a species of a *very* rare tree that grows in Australia—*Eidothea hardeniana*—but it's better known as the Nightcap Oak.

Now, it was discovered only very recently, just a few years ago. Uh, it

remained hidden for so long because it's so rare, there're only about, oh, two hundred of 'em in existence. They grow in a rain forest, in a mountain range in the north part of New South Wales, which is, uh, a state in Australia. So just two hundred individual trees in all.

Now, another interesting thing about the Nightcap Oak is that it is … it represents … a-a very old … *type*, a kind of a tree that grew … a hundred million years ago. Uh, we found fossils that old that bear a remarkable resemblance to the tree. So, it's a *primitive* tree, a living fossil, you might say. It's a relic from earlier times, and it has survived all these years without much change. And … it-it's probably a kind of tree from which other trees that grow in Australia today evolved. Just-just to give you an idea of what we're talking about, here's a picture of the leaves of the tree and its flowers.

I dunno how well you can see the flowers; they're those little clusters sitting at the base of the leaves.

OK, what have we tried to find out about the tree since we've discovered it? Hmm, well, how … why is … is it so rare is one of the

first questions. Uh, how is it, uh, how does it reproduce, is another question. Uh, maybe those two questions are actually related? Jim.

Male student
Hmm, I dunno, but I can imagine that … for instance … uh, seed dispersal might be a factor—I mean, if the, uh, y'know if the seeds cannot really disperse in a wide area then you know the tree may not, uh, *colonize* new areas, it-it can't spread from the area where it's growing.

Professor
Right, that's-that's actually a very good answer. Uh, of course, you might think there might not be many areas where the tree could spread *into*, uh, because, uh, well it's-it's very specialized in terms of the habitat. But that's not really the case here, uh, the-the suitable habitat-habitat that is the actual rain forest is much larger than-than the few hectares where the Nightcap Oak grows. Now, this tree is a flowering tree as I showed you, uh, uh, it-it produces a fruit, much like a plum, on the inside there's a seed with a hard shell. Uh, it-it appears that the shell has to crack open or break down somewhat to allow the seed to soak up water. If the Nightcap Oak remains, if their seeds

remain locked inside their shell, they will not germinate. Now actually the seeds, uh, they don't retain the power to germinate for very long, maybe two years, so there's actually quite a short window of opportunity for the seed to germinate. So the shell somehow has to be broken down before this, uh, germination ability expires. And-and then there's a kind of rat that likes to feed on the seeds as well. So, given all these limitations, not many seeds that the tree produces will actually germinate. So this is a possible explanation for why the tree does not spread. It doesn't necessarily explain how it *became* so rare but it explains why it doesn't increase.

OK, so it seems to be the case that this species, uh this Nightcap Oak, is not very good at spreading. However, it seems, though we can't be sure, that it's very good at *persisting* as a population. Uh, uh, we, uh, there-there're some indications to suggest that the population of the Nightcap Oak has not declined over the last, uh, y'know, many hundreds of years. So, it's stayed quite stable; it-it's not a remnant of some huge population that has dwindled in the last few hundred years for some reason. It's not *necessarily* a species in retreat. OK, so it cannot spread very well but it's good at maintaining itself. It's rare but it's not disappearing. OK, the next thing we might wanna ask about a plant like that is what chances does it have to survive into the future. Let's look at that.

TRACK 46 TRANSCRIPT

Narrator
Listen again to part of the lecture. Then answer the question.

Professor
OK, what have we tried to find out about the tree since we've discovered it? Hmm, well, how … why is … is it so rare is one of the first questions. Uh, how is it, uh, how does it reproduce, is another question. Uh, maybe those two questions are actually related?

Narrator
Why does the professor say this:

Professor
Maybe those two questions are actually related?

TRACK 47 TRANSCRIPT

Narrator
Listen to a conversation between a student and a professor.

Student
Professor Martin?

Professor
Hi, Lisa—what can I do for you?

Student
Well, I've been thinking about, you know, what you were saying in class last week? About how we shouldn't wait until the last minute to

find an idea and get started working on our term paper?

Professor
Good, good. And have you come up with anything?

Student
Well, yeah, sort of—see, I've never had a linguistics class before, so I was sort of … I mean, I was looking over the course description, and a lot of the stuff you've described there, I just don't know what it's talking about, you know? Or what it means. But there was one thing that really did jump out at me …

Professor
Yes …?

Student
The section on dialects? 'Cause, like, that's the kind of thing that's always sort of intrigued me, you know?

Professor
Well, that's certainly an *interesting* topic, but you may not realize, I mean, the *scope* …

Student
Well, especially now, 'cause I've got, like, *one* roommate who's from the South, and *another* one from New York, and we all talk, like, *totally* different, you know?

Professor
Yes, I understand, but …

Student
But then I was noticing, like, we don't really get into this till the end of the semester, you know? So I …

Professor
So you want some pointers where to go for information on the

subject? Well, you could always *start* by reading the chapter in the book on sociolinguistics; that would give you a basic understanding of the key issues involved here.

Student
Yeah, that's what *I* thought! So I started reading the chapter, you know—about how everyone speaks some dialect of their language? And I'm wondering, like, well, how do we even manage to understand each other at all?

Professor
Ah! Yes, an interesting question. You see …

Student
So then I read the part about "dialect accommodation"—you know, the idea that people tend to adapt their speaking to make it closer to the speech of whoever they're talking to. And I'm thinking, yeah, *I* do that when I talk with my roommates! And without even thinking about it or anything, you know?

Professor
OK, all right—"dialect accommodation" is a more manageable sort of topic …

Student
So I was thinking, like, I wonder just how much other people do the same thing? I mean, there's students here from all over the place; does everyone change the way they talk to some degree, depending on who they're talking to?

Professor
You'd be surprised!

Student
So, anyway, my question is, do you think it'd be OK if I did a project like that for my term paper? You know, find students from different parts of the country, record them talking to each other in different

combinations, report on how they accommodate their speech or not, that kind of thing?

Professor
Tell you what, Lisa: Write me up a short proposal for this project—how you're going to carry out the experiment and everything, a-a design plan—and I think this'll work out just fine!

TRACK 48 TRANSCRIPT

Narrator
Listen again to part of the conversation. Then answer the question.

Student
The section on dialects? 'Cause, like, that's the kind of thing that's always sort of intrigued me, you know?

Professor
Well, that's certainly an *interesting* topic, but you may not realize, I mean, the *scope* …

Narrator
What can be inferred about the professor when he says this:

Professor
Well, that's certainly an *interesting* topic, but you may not realize, I mean, the *scope* …

TRACK 49 TRANSCRIPT

Narrator
Listen to part of a lecture in a creative writing class.

Professor
All right everybody. The topic for today is, well … we're gonna take a look at how to start creating the characters for the stories you're

writing. One way of doing that is to come up with what's called a character sketch. I don't mean a sketch like a drawing. I guess that's obvious. It's, um … a sketch is a way of getting started on defining your characters' personalities.

To begin, how do we create fictional characters? We don't just pull them from thin air, do we? I mean, we don't create them out of nothing. We base them—consciously or unconsciously—we base them on real people. Or, we, um … blend several people's traits … their attributes … into one character.

But when people think fiction, they may assume the characters come from the author's imagination. But the writer's imagination is influenced by … by real people. Could be anyone, so pay attention to the people you meet … someone in class, at the gym, that guy who's always sitting in the corner at the coffeehouse … uh, your cousin who's always getting into dangerous situations. We're pulling from reality … gathering bits and pieces of real people. You use these people … and the bits of behavior or characteristics as a starting point as you begin to sketch out your characters.

Here's what you should think about doing first. When you begin to formulate a story, make a list of interesting people you know or have observed. Consider *why* they're unique … or annoying. Then make notes about their unusual or dominant attributes. As you create fictional characters, you'll almost always combine characteristics from several different people on your list to form the identity and personality of just one character.

Keeping this kind of character sketch can help you solidify your character's personality … so that it remains consistent throughout your story. You need to define your characters … know their personalities so that you can have them acting in ways that're predictable … consistent with their personalities. Get to know them like a friend. You know your friends well enough to know how they'll

act in certain situations, right?

Say you have three friends, their car runs out of gas on the highway. John gets upset, Mary remains calm, Teresa takes charge of handling the situation. And, let's say … both John and Mary defer to her leadership. They call you to explain what happened. And when John tells you he got mad, you're not surprised because he always gets frustrated when things go wrong. Then he tells you how Teresa took charge, calmed him down, assigned tasks for each person, and got them on their way. Again you're not surprised. It's exactly what you'd expect. Well, you need to know your characters like you know your friends … if you know a lot about a person's character, it's easy to predict how they'll behave. So if your characters' personalities are well defined, it'll be easy for you as the writer to portray them realistically … believably in any given situation.

While writing character sketches, *do* think about *details*. Ask yourself questions, even if you don't use the details in your story … uh, what does each character like to eat, what setting does each prefer … the mountains? The city? What about educational background? Their reactions to success … or defeat? Write it all down.

But here I need to warn you about a possible pitfall. Don't make your character into a stereotype. Remember, the reader needs to know how your character is different from other people who might fall in the same category. Maybe your character loves the mountains and has lived in a remote area for years. To make sure he's not a stereotype, ask yourself how he sees life differently from other people who live in that kind of setting. Be careful not to make him into the cliché of the rugged mountain dweller.

OK. Now I'll throw out a little terminology … it's easy stuff. *Major* characters are sometimes called *round* characters. *Minor* characters are sometimes called … well, just the opposite. *Flat*. A round character is fully developed. A flat character isn't—character

development is fairly limited. The flat character tends to serve mainly as a, um, a motivating factor. For instance, you introduce a flat character who has experienced some sort of defeat … and then your round … your main character, who loves success and loves to show off, comes and boasts about succeeding … and jokes about the flat character's defeat in front of others … humiliates the other guy. The flat character is introduced solely for the purpose of allowing the round character to show off.

TRACK 50 TRANSCRIPT

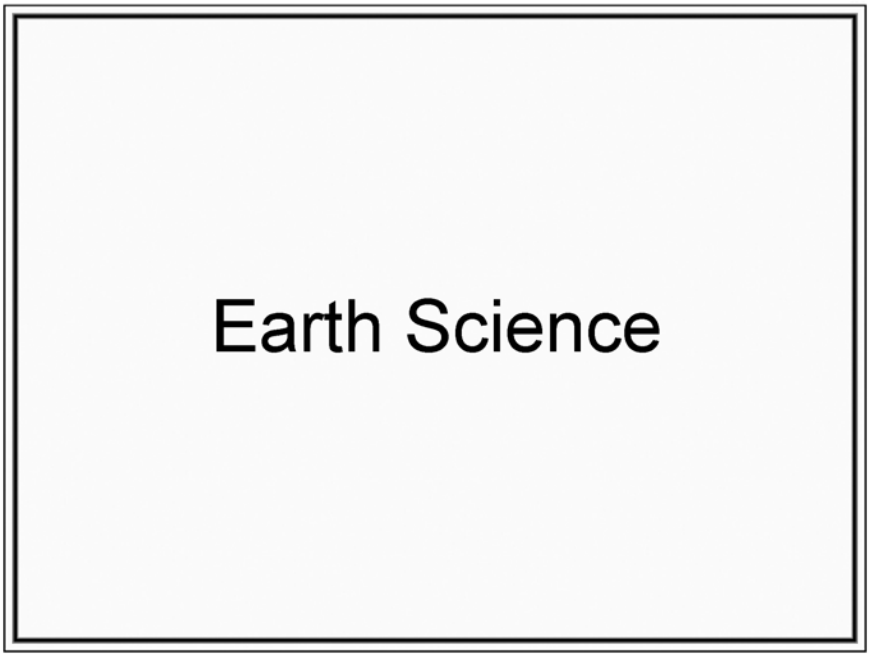
Narrator
Listen again to part of the lecture. Then answer the question.

Professor
One way of doing that is to come up with what's called a character sketch. I don't mean a sketch like a drawing. I guess that's obvious. It's, um … a sketch is a way of getting started on defining your characters' personalities.

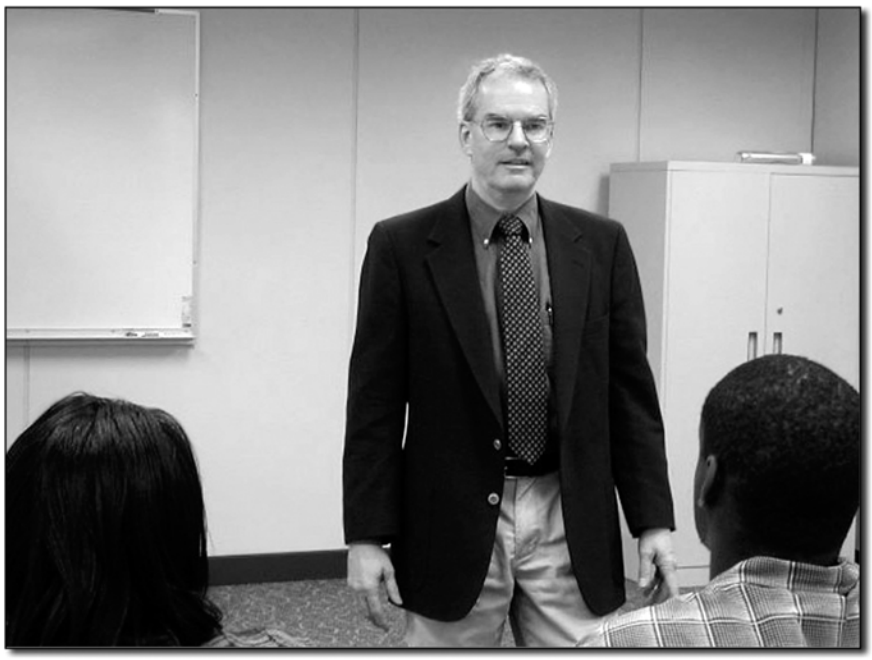
Narrator
Why does the professor say this:

Professor
I don't mean a sketch like a drawing.

TRACK 51 TRANSCRIPT



Narrator
Listen to part of a lecture in an earth science class.



Professor
We're really just now beginning to understand how *quickly drastic* climate change can take place. We can see past occurrences of

climate change that took place over just a few hundred years. Take, uh, the Sahara desert … in Northern Africa.

The Sahara was really different 6,000 years ago. I mean, you wouldn't call it a tropical paradise or anything—ah, or maybe you *would* if you think about how today in some parts of the Sahara it only rains about once a century. Um, but basically, you had greenery and you had water. And what *I* find *particularly* interesting, amazing, really what *really* indicates how *un*-desert-like the Sahara was thousands of years ago, was something painted on a rock: prehistoric art —*hippopotamuses*. As you know, hippos need a lot of water, and hence … Hence what?

Female student
They need to live near a large source of water year-round.

Professor
That's right.

Male student
But how's that proof that the Sahara used to be a lot wetter? I mean, the people who painted those hippos … well, couldn't they have seen them on their travels?

Professor
OK, in principle they could, Carl. But the rock paintings aren't the only evidence. Beneath the Sahara are huge *aquifers*, basically a sea of fresh water that's perhaps a million years old, filtered through rock layers. And, ah, and-and then there's fossilized pollen from low shrubs and grasses that once grew in the Sahara. In fact these *plants* still grow, ah, but hundreds of miles away in more vegetated areas. Anyway, it's this fossilized pollen, along with the aquifers, *and* the rock paintings—these three things are all evidence that the Sahara was once much greener than it is today, that there were hippos and

probably elephants, and giraffes, and so on.

Male student
So, what happened?

Professor
How did it happen? Well now we're so used to hearing about how human activities are affecting the climate, right; but that takes the focus away from the natural variations in the Earth's climate. Like the Ice Age, right? The planet was practically covered in ice just a few thousand years ago. Now, as far as the Sahara goes, there's some recent literature that points to the migration of the monsoon in that area.

Male/Female student
Huh?

Professor
What do I mean? OK. A monsoon is a seasonal wind that can bring in a large amount of rainfall. Now, if the monsoon *migrates*, well *that* means the rains move to another area, right?

So what *caused* the monsoon to migrate? Well, the answer is the dynamics of Earth's motions—the same thing that caused the Ice Age, by the way. The Earth's *not always* the same distance from the Sun. *And* it's *not always tilting* toward the Sun at the same angle. There're slight variations in these two parameters. They're gradual variations, but their *effects* can be pretty abrupt, and *can* cause the climate to change in *just* a few hundred years.

Female student
That's abrupt?

Professor
Well, yeah, considering that other climate shifts take *thousands* of years, this one's pretty abrupt. So these changes in the planet's

motions, they caused the climate to change; but it was also *compounded*. What the Sahara experienced was a sort of *runaway drying* effect.

As I said, the monsoon migrated south—so there was less rain in the Sahara. The *land* started to get *drier*—which in turn caused a huge *decrease* in the amount of *vegetation*, because vegetation doesn't grow as well in dry soil, right? And then, less vegetation means the soil can't hold water as well—the soil *loses* its ability to *retain* water when it *does* rain. So then you have less moisture to help clouds form … nothing to evaporate for cloud formation. And then the cycle continues—less rain, drier soil, less vegetation, fewer clouds, less rain, etcetera, etcetera.

Male student
But what about the people who made the rock paintings?

Professor
Good question. No one really knows. But there might be some connection to ancient Egypt. At about the same time that the Sahara was becoming a desert, mmm … 5,000 years ago, Egypt *really* began to flourish out in the Nile River Valley. And that's not that far away. So it's only *logical* to hypothesize that a lot of these people migrated to the Nile Valley when they realized that this was more than a temporary drought. And some people take this a step further—and that's OK, that's science—and they hypothesize that this migration actually provided an important impetus in the development of ancient Egypt. Well, we'll stay tuned on that.

TRACK 52 TRANSCRIPT

Narrator
Listen again to part of the lecture. Then answer the question.

Professor

I mean, you wouldn't call it a tropical paradise or anything—ah, or maybe you *would* if you think about how today in some parts of the Sahara it only rains about once a century.

Narrator
Why does the professor say this:

Professor
Or maybe you *would* if you think about how today in some parts of the Sahara it only rains about once a century.

TRACK 53 TRANSCRIPT

Narrator
Talk about a photograph or painting you have seen that was memorable. Explain what you liked or disliked about it.

TRACK 54 TRANSCRIPT

Narrator
Some people have one career throughout their lives. Other people do different kinds of work at different points in their lives. Which do you think is better? Explain why.

TRACK 55 TRANSCRIPT

Narrator
Now read a letter that a student has written to the university newspaper. You have 50 seconds to read the letter. Begin reading now.

TRACK 56 TRANSCRIPT

Narrator
Now listen to two students discussing the letter.

Female student
I totally disagree with Tim's proposal.

Male student
Why?

Female student
Well, look. Tim's my friend, but he's not your typical student. He stays up late partying every night—weeknights too.

Male student
If he parties every night, no wonder he can't pay attention.

Female student
Yes, and most students aren't like that. They come to class prepared and rested, and they can concentrate.

Male student
So you're saying the problem is really Tim.

Female student
Yes. He was in one of my classes last year and whenever I looked at him, he was actually sleeping.

Male student
I guess if he's sleeping, he can't really know what's happening, what other people in class are doing.

Female student
Right. And you want to know what does happen in that last hour of seminar? In a lot of seminars that I've been in, that's when things get interesting.

Male student
Really?

Female student
Yes. That's usually when students get really involved in the discussion and start exchanging important ideas. And if the history department actually did what Tim suggests, well, if they did that, what would happen is you'd lose what might be the most worthwhile part of a seminar.

Narrator
The woman expresses her opinion about the proposal described in the letter. Briefly summarize the proposal. Then state her opinion about the proposal and explain the reasons she gives for holding that opinion.

TRACK 57 TRANSCRIPT

Narrator
You have 45 seconds to read a passage from a psychology textbook. Begin reading now.

TRACK 58 TRANSCRIPT

Narrator
Now listen to part of a lecture on this topic in a psychology class.

Professor
OK, the first kind of memory, we're all very familiar with this, right? You probably remember what you had for dinner last night. You have a conscious memory of last night's dinner, so, um, if I ask you "What did you eat last night?" you could tell me.

But these other kind of memories—implicit memories. They work differently.

Let's take an example from the world of advertising. When you're driving along a highway, you see plenty of billboards—you know, roadside advertisements. You certainly don't remember them all. But they still affect you. Marketing researchers have shown … well, to be specific, let's say there's a billboard on the highway advertising a car called "the Panther." The ad shows a big picture of the car. And above

the car in huge letters is the name of the car: “Panther.” A lot of people drive by the billboard. But … ask those drivers later if they saw any advertisements for cars, and, well, they’ll think about it, and a lot of them will say no. They honestly don’t remember seeing any. They have no conscious memory of the “Panther” billboard. So you ask these same people a different question: You ask, um, OK, ah, you ask them to name an animal starting with the letter P. What do you think they will answer? Do they say “pig”? Pig is the most common animal that starts with the letter P. But they don’t say “pig.” They say “panther.” The billboard had an effect, even though the drivers don’t remember ever seeing it.

Narrator
Using the example of the car advertisement, explain what is meant by implicit memory.

TRACK 59 TRANSCRIPT

Narrator
Now listen to a conversation between a professor and a student.

Professor
Hi, Sara. To what do I owe the pleasure of this office visit?

Student
It's my study group, Professor Wilson. We're not getting much studying done, and, you know, none of us did very well on your last quiz.

Professor
Hmm. What's the problem?

Student
Well, we've all become good friends and we joke around a lot instead of studying.

Professor
Hmm … Sara, let me ask you this: when do you meet?

Student
Every Friday afternoon.

Professor
Have you thought about changing to another day? By the time Friday afternoon rolls around, all of you are probably exhausted and all you want to do is relax and unwind. It's hard to stay focused at the very end of the week.

Student
Good point, although things have gotten so out of hand, that I'm not sure changing days would help. And we'd lose one or two people if we changed days. Friday afternoon's the only time everyone's available. But it's worth considering.

Professor
OK, but just a second … another possibility is … Does your group have a leader?

Student
No …

Professor
Well, if you had a leader that would help enormously—someone to set an agenda in advance, e-mail it to everyone before the meeting, and then make sure, when you meet, that you stay focused on your goals. And since you seem to be concerned enough about the problem to have come see me, I think that someone might be you.

Student
I guess I could take on that role. But it sounds like work.

Professor
You don't have to do it for the whole semester, Sara. You can start it off, and then perhaps someone else can take over.

Narrator
Briefly summarize the problem the speakers are discussing. Then state which of the two solutions from the conversation you would recommend. Explain the reasons for your recommendation.

TRACK 60 TRANSCRIPT

Narrator
Now listen to part of a talk in an education class.

Professor
One of the hardest parts of teaching is keeping your students' attention. Now, the key to doing this is understanding the *concept* of attention.

Basically, there are two types of attention. The first type is active. Active attention is voluntary—it's when you intentionally make yourself focus on something. And since it requires effort, it's hard to keep up for a long time. OK, so, um, let's say you're teaching a … a biology class. And today's topic is frogs. All right, you're standing at the front of the room and lecturing: "A frog is a type of animal known as an amphibian …" Well, this isn't necessarily going to keep the students' interest. But most of them will force themselves to pay active attention to your lecture … but it's only a matter of time before they get distracted.

Now, the other type of attention is *passive* attention—when it's

involuntary. Passive attention requires no effort, because it happens naturally. If something's really interesting, students don't have to *force* themselves to pay attention to it—they do it without even thinking about it. So back to our biology lecture. You start talking about frogs, and then you pull a live frog out of your briefcase. You're describing it while you hold it up … show the students how long its legs are and how they're used for jumping, for example. Then maybe you even let the frog jump around a bit on the desk or the floor. In this case, by doing something unexpected … something more engaging, you can tap into their passive attention. And it can last much longer than active attention; as long as the frog's still there, your students will be interested.

Narrator
Using points and examples from the talk, explain the difference between active and passive attention.

TRACK 61 TRANSCRIPT

Narrator

Now listen to part of a lecture on the topic you just read about.

Professor
The communal online encyclopedia will probably never be perfect, but that's a small price to pay for what it *does* offer. The criticisms in the reading are largely the result of prejudice against and ignorance about how far online encyclopedias have come.

First, errors: It's hardly a fair criticism that encyclopedias online have errors. Traditional encyclopedias have never been *close* to perfectly accurate. If you're looking for a *really* comprehensive reference work without *any* mistakes, you're not going to find it—on- *or* off-line. The real point is that it's easy for errors in factual material to be corrected in an online encyclopedia—but with the printed and bound encyclopedia, the errors remain for decades.

Second, hacking: online encyclopedias have recognized the importance of protecting their articles from malicious hackers. One strategy they started using is to put the crucial facts in the articles that nobody disputes in a *"read-only"* format, which is a format that no one can make changes to. That way you're making sure that the crucial facts in the articles are reliable. Another strategy that's being used is to have special editors whose job is to monitor all changes made to the articles and eliminate those changes that are clearly malicious.

Third, what's worth knowing about: The problem for traditional encyclopedias is that they have limited space, so they have to decide what's important and what's not. And in practice, the judgments of the group of academics that make these decisions don't reflect the great range of interests that people really have. But space is definitely *not* an issue for online encyclopedias. The academic articles are still represented in online encyclopedias, but there can be a great variety of articles and topics that accurately reflect the great diversity of users' interests. The diversity of views and topics that online encyclopedias offer is one of their strongest advantages.

TRACK 62 TRANSCRIPT

Narrator
Summarize the points made in the lecture, being sure to explain how they oppose the specific points made in the reading passage.

TRACK 63 TRANSCRIPT

Narrator
Listen to a conversation between a student and an employee in the campus computer center.

Computer center employee
Hi, what can I help you with today?

Student
Hi, um, I wanted to—you see, the thing is, I don't know much about computers, so I was wondering if, uh, if there's a class or something … so I can learn how to use computers, like to write papers for my classes.

Computer center employee
Oh, I see … um, we don't really offer a course for beginners, since most students already have computing experience. But all the computers in our labs have a general tutorial installed on them. You could just go there and run it.

Student
And the tutorial explains everything? I mean, it might sound strange but I've never used a computer.

Computer center employee
Well, all the computer labs on campus are staffed with student assistants, and I'm sure that any one of them would be more than willing to get you started.

Student
Yeah? That sounds good. But is it expensive?

Computer center employee
No, in fact, it won't cost anything; it's one of the services of the computer center.

Student
That's great. How do they—I mean, how do I get in touch with the student assistants? Should I just go to a computer lab and ask whoever's there?

Computer center employee
Sure, you could do that, or I can let you have a list of names of the students who are assistants in the labs. You might know one of them.

Student
Actually, I think I'd prefer someone I don't know, um, so I can ask dumb questions … Is there anyone you'd recommend?

Computer center employee
All of our student assistants are really knowledgeable about

computers. I mean, they have to be, in order to work in the computer labs … It doesn't mean that they're necessarily good at teaching *beginners* … but you probably won't be a beginner for very long.

Student
Hope not.

Computer center employee
And I just thought of something else. The bookstore has a lot of books on computers—there might be one for people like you, I mean, people who don't have a lot of experience with computers. I actually bought one for my father so he could learn how to use e-mail, basic word processing, that sort of thing—and it worked pretty well for him.

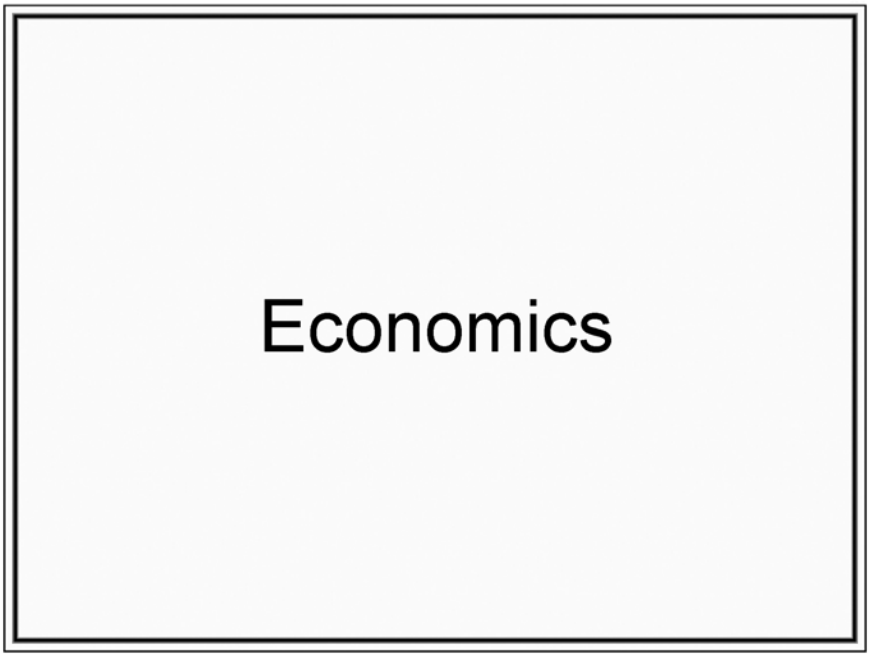
Student
OK, I'll try that, too. And if the bookstore doesn't have it, they can just order it for me?

Computer center employee
Right. Now is there anything else I can help you with today?

Student
Uh, just the list of names and the times they're working. I'd like to get going on this as soon as possible.

Computer center employee
Right. Good luck.

TRACK 64 TRANSCRIPT



Narrator
Listen to part of a lecture in an economics class.

Professor
When attempting to understand international trade, some things seem so obvious that they can hardly be controverted, and other points that

are important are invisible unless you've thought about the subject carefully.

Consider the following: if there's an increase in imports, let's say, um, let's say imports of furniture, and the domestic producers of furniture find this new competition very difficult and are cutting production and employment, then it seems obvious and easy to understand and many people conclude from this that increasing imports will cause generally greater unemployment at home.

What is not so obvious is that how much we import and how much we export … those are interdependent and you can't understand the one without the other. But the exports that are generated are not easily discernable, so most people don't see them. They see only the imports of furniture rising and employment in domestic furniture production falling.

So as a result, many people argue that we ought to protect jobs by limiting imports—either by tariffs, quotas, regulations, or whatever—without realizing that this also has the effect of reducing potential future exports to the rest of the world, things that we can produce very, very … cost effectively and therefore profitably.

The fundamental proposition in international economics is that it makes sense to import those things that we … that can be produced more economically abroad than at home and export things to the rest of the world that we can produce more cost effectively than produced elsewhere in the world. Therefore, if we limit imports, we put ourselves in danger of not being able to export.

The details of this relationship will take much longer to explain than I can fully go into now but the point of the matter is that gains—the benefits of gains—from international trade result from being able to get things cheaper by buying them abroad than you can make them at

home. Now there're some things that we can make at home that are … that we can do more economically than they can do abroad.

In the case of the United States, typically high-technology products, uh … are things that Americans have innovated in and started firms doing that sort of thing at which they do very well. Whereas goods that produce … that use a lot of relatively low skill labor, like furniture production, cotton production, sugar production … those are things that are frequently made more inexpensively in places where wage rates are low and the cost of using capital is very high.

However, in Florida they produce a lot of sugar, but the costs are so high, if we didn't have extensive restrictions on imports of sugar, the output of sugar would decline dramatically. But the sugar industry in the U.S. doesn't produce high-paying jobs, it uses resources in ineffective ways and it blocks the import of more cost-effectively produced sugar. It, it's a very bad bargain for the people in the United States to want to protect low-paying jobs thereby halting the growth of world trading and international … uh, more international specialization. It would be better to remove restrictions on imports and allow other countries in the world … countries that can produce them more cheaply … let them specialize in producing those products.

Now, I agree that people who are directly affected by imports, what they focus on … is, is that their prospects … their job prospects are being reduced, and their economic circumstances are getting worse. And that's a relevant problem and an important problem; what isn't so obvious is … that by retraining and relocating people to places and industries where jobs are expanding rather than contracting, we can make the whole economy function more effectively and productively than by trying to block imports.

Um, what is interesting to note is that, even if there were no international trade issues, like imports, any changes that occur in a country's economy—any new technology, change in preferences,

change in regulations or whatever—will lead to “adjustments” that lead some sectors of the economy to decline and others to expand.

And that’s what we have to figure out, and that’s a hard problem to deal with in detail, is how to facilitate people adjusting from sectors where their job prospects are not so good, and in particular where real wages aren’t so high, to acquire skills that will permit them to move into higher-paying jobs in other parts of the economy either by retraining or relocating. Helping pay for the relocation of these people would be very helpful, but trying to block the changes is really counterproductive. It makes people in our country poorer, and it makes people elsewhere in the world poorer as well.

TRACK 65 TRANSCRIPT

Narrator
Listen to part of a lecture in a marine biology class.

Professor

I want to continue our discussion about whales. Specifically, today, um, I want to talk about whale migration—um, why whales head *south* for the winter. Or really why whales in the cold water of the *Northern* Hemisphere head *south* for the winter. Now, not all kinds of whales migrate, but most baleen whales do.

And interestingly enough, we still don't really know why the baleen whales migrate. We do have several theories, however, which I'll discuss today. Uh, can anybody name one reason why baleen whales might migrate south, to the warm tropical water?

Male student
Uh, for food? You know, the whales move to warmer water in order to find a good area to feed.

Professor
Good guess. That should be an obvious reason—after all, most animals that migrate do so for the purpose of finding food. But, uh, that doesn't seem to be the case with baleen whales. To understand why, you need to know something about water temperature. There are a lot of technical reasons that I'm not going to go into right now. But let's just say that nutrients don't rise to the surface of tropical water like they do in other kinds of water. Tropical water simply never gets cold enough. So … well, what this means, uh, is that tropical water doesn't have much of the plankton that most whales feed on.

Male student

I don't understand—if there's no plankton, how do the whales survive through the winter?

Professor
Right. How *do* they survive? You see, they don't have to eat anything, because they've stored up so much fat during the summer feeding season that they can just survive off of that. So if they don't need to eat anything, we're back to our original question. Why do baleen whales migrate? Any theories? No?

Well, there's one idea out there that a lot of people believe. In fact, uh, you could say it's the most popular theory we have about whale migration. Basically, the argument is that for baleen whales, migration is a kind of balancing act. Let me explain. On one hand, whales need to take advantage of the summer months by eating as much food as they can. And that's what they can do best in the northern seas. This allows them to build up a lot of fat. But in the winter, food is scarce even in the north, so what the whales need to do is *save* energy. And that's what migrating south can help them do … Amanda, you have a question?

Female student
Yes. Um, the balancing-act theory doesn't make sense to me. Maybe whales might need to save energy during the winter, but wouldn't moving all the way down to tropics make them *lose* energy?

Professor
That's a good point, and it's one reason why this isn't a perfect theory. It *does* cost the whales energy to migrate, but it's easier for whales to save energy in warm water than it is to save energy in cold water, so there might still be, you know, a good reason to move south for the winter. OK?

Now, before moving on to the next chapter, I want to briefly discuss how the baleen whale manages to navigate. It's pretty remarkable, because the whales manage to return to the same places year after year, and have to travel over an enormous area of ocean in order to do it. I mean, it's not like whales can just look at a map, right? So exactly how do they do it?

Well, a lot of experimental work still needs to be done, but we have

been able to figure out at least three ways the baleen whale navigates without getting lost. The first is the ability to use Earth's magnetic field like it was a map. That sounds strange, but we know that many birds use that method, use the magnetic field, and it's possible that whales have the biological ability to do the same thing.

Another theory is that if they stay close to the coast, whales might be able to find familiar landmarks and use those as guides. But we don't really know if a whale's eyesight is good enough to be able to do that, so that's not a perfect theory.

And finally, we know that many whales make very loud sounds that can travel literally hundreds of miles underwater. Through a process called echolocation, it's possible that these whales hear the sounds bounce off of islands or other pieces of land and use those echoes as clues to help them find their way.

TRACK 66 TRANSCRIPT

Narrator
Listen again to part of the lecture. Then answer the question.

Professor
To understand why, you need to know something about water temperature. There are a lot of technical reasons that I'm not going to go into right now. But let's just say that nutrients don't rise to the surface of tropical water like they do in other kinds of water.

Narrator
What does the professor mean when she says this:

Professor
There are a lot of technical reasons that I'm not going to go into right now.

TRACK 67 TRANSCRIPT

Narrator
Listen again to part of the lecture. Then answer the question.

Professor
It's pretty remarkable, because the whales manage to return to the same places year after year, and have to travel over an enormous area of ocean in order to do it. I mean, it's not like whales can just look at a map, right?

Narrator
What point does the professor make when she says this:

Professor
I mean, it's not like whales can just look at a map, right?

TRACK 68 TRANSCRIPT

Narrator

Listen to a conversation between a student and a professor.

Student
Hi, uh … Professor Anderson … wondering if you had a couple minutes …

Professor
Of course, Paula …

Student
Thanks … uh, you sent me a letter recently about doing, uh, an honors project—inviting me to come in and talk about …

Professor
Right, right, well, as your academic advisor, it's my job to look out for your academic interests, and based on your grades, and some very positive feedback I've heard from your professors, I wanted to formally invite you to consider doing an honors project …

Student
Yeah … well, thanks … uh, actually I kinda wanted to ask you … quite frankly—like how much work it would probably be? I mean, I'm gonna be spending a lot of time applying to law schools next semester and …

Professor
Well, let me tell you how it works … and then you can decide from there.

Student
OK.

Professor
Basically, the honors project is an opportunity to do … some in-depth work on a topic you're interested in before graduating college. You register for the class, but it doesn't work the same way a regular class does—you find a professor who you want to work with—you ask the

professor—a sort of mentor who's knowledgeable on the topic you're interested in—the topic you're gonna write your honors thesis on …

Student
Writing a *thesis*? That's part of the *project*? Ah, like how many pages are we talking?

Professor
Usually about 50 … but it's a valuable experience, writing a thesis paper.

Student
So, basically, after I register for the class, I need to ask a professor who'll sorta help me …

Professor
Actually, you need to do that—a professor needs to agree to oversee your honors project—before you register.

Student
Oh, OK …

Professor
I mean, I know it sounds kinda daunting, but that's what the professor's there for—to help guide you through the different steps of the process and … uh … most students are very pleased with the experience … they're able to demonstrate advanced research skills, which is important; especially in your case, writing an honors thesis would be a big plus …

Student
You think so?

Professor
Absolutely. Especially considering your plans, since you're applying to law schools. It shows initiative, that you've done well as an undergraduate—to be allowed to do the honors project … that you're

able to work independently and, of course, you would graduate with honors …

Student
Yeah, it *does* sound good—it's just, you know, I've never written something like that before, so …

Professor
Well, you choose something you're interested in—maybe you can even expand a shorter research paper from another class or …

Student
So, like, maybe … You know, I took this course from Professor Connelly—his course on Comparative Governments last semester and, uh … did pretty well—I wrote a paper actually, on political parties in Venezuela and—and he seemed to like my research. Anyway, he, uh, I got an A in the course.

Professor
Good, so it sounds like you do have a general idea for a topic, and you might know what professor you want to work with … and look, it's still a couple weeks before registration, maybe you should talk to Professor Connelly and then get back to me.

Student
Yeah, I will—thanks. I'll come by again sometime next week.

Professor
That's fine. Good luck.

TRACK 69 TRANSCRIPT

Narrator
What does Professor Anderson imply when he says this:

Professor

… they're able to demonstrate advanced research skills, which is important; especially in your case, writing an honors thesis would be a big plus …

TRACK 70 TRANSCRIPT

Narrator
What does the woman imply when she says this:

Student
Yeah, it does sound good—it's just, you know, I've never written something like that before … so …

TRACK 71 TRANSCRIPT

Narrator
Listen to part of a lecture in a journalism class. The professor has been discussing newspapers.

Professor

About 40 years ago, half of all Americans felt they'd be lost without a daily newspaper. But today, only one in *ten* Americans say they'd be lost without a paper. In fact, today, half of all Americans say they don't need a newspaper at all. And so people in the newspaper industry are trying to figure out how they can get more people reading the newspaper more often. They're trying to crack journalism's riddle for the ages: what makes people read newspapers? OK, well, let me ask you—as a journalism student, what do *you* think is the answer to this question? Elizabeth?

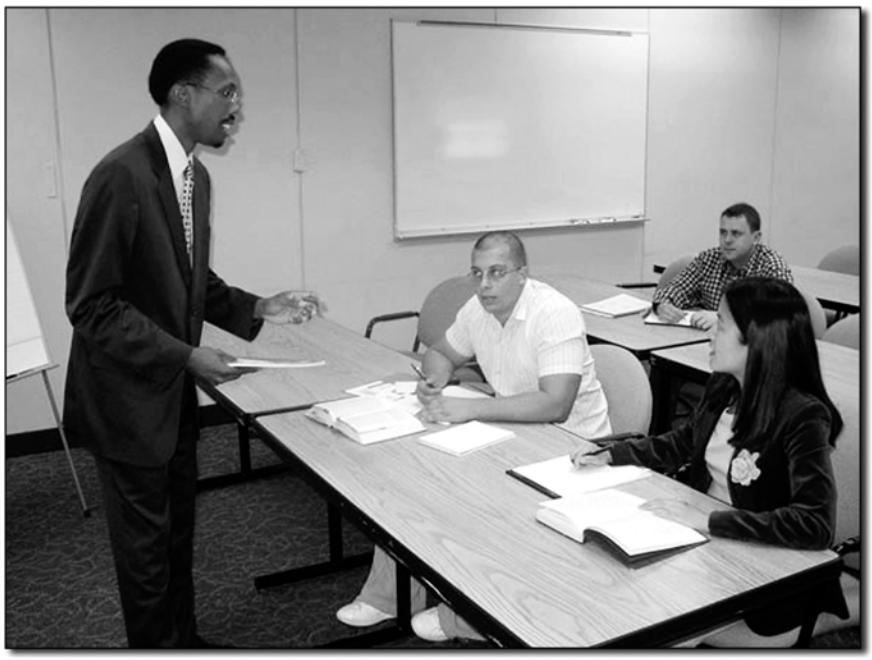
Female student
Um, I would probably try to improve the content of the newspaper.

Professor
Better content. Hmm. You mean like *well-written* editorials and articles?

Female student
Well, I mean provide more *interesting* content, like, I would first try to find out what readers really want to read … and then put *that* into the paper.

Professor
Yes, in fact, not too long ago, there was an extensive study conducted to investigate what draws people to newspapers. Uh, they found out that there's a clear, strong link between satisfaction with *content* and overall readership. Those newspapers that contained what the readers wanted most brought in the most readers. No big surprise there, right? So, what kind of content brings in readers? The study found that *people-centered local news* ranks at the top of the list … stories about *ordinary* people. For example, you could write about the

experiences of those who were involved in a news story, and their friends and relatives … The vantage points would be those of *ordinary* people, not of police or other officials … OK? Now the study also showed that people want more stories about movies, TV, and weather, and *fewer* stories and photos about natural disasters and accidents … So, to get reader satisfaction, you need to select the right topics, and within those topics, the right news events or stories to cover. Yes, James?



Male student
It seems to me that a lot of what you just mentioned doesn't line up with the principles of good journalism. Catering to readers' tastes may improve overall readership, but what about the social responsibilities that newspapers have? I mean, there are some topics that newspapers *need* to write about in order to serve the public interest. Those topics may not always be fun and interesting for the average reader, but it's still the newspaper's responsibility to make that information available to the public.

Professor
That's a good point. You need a good mix of content. You can't just

rush towards an attractive topic and forget about the reporting role of newspapers. There's a danger of going soft—newspapers *do* have to perform their obligations to citizens. So what newspapers sometimes do is to combine serious journalism with a reader-friendly *presentation*. Um, let me give you an example: When the justice department opened an investigation on the local police—some pretty serious stuff that could be boring to some readers—well, one local newspaper ran a lead story on their front page, but they also simplified the format by including small breakout boxes that presented—in a nutshell—the highlights of the story. That way, they could report the serious stories they needed to report, and, and still hold their readers' attention. OK? Uh, going back to the research on readership growth we were talking about … Uh, the most vital step of all, the study shows, may be making the paper easier to *use*. How can we make the paper "easier to *use*"? Well, it means stories need to include information, such as phone numbers, times, dates, addresses, Web sites and the like, so that readers can "go and do" things based on what they've read.

Female student
Professor Ellington? Um, when you said we need to make the paper "easier to use," I thought you were gonna say something about use of graphics, colors, and stuff like that.

Professor
Well, I guess those things do help in a way, but it turned out that those contemporary touches, uh, such as more attractive designs, extensive use of color, and informational graphics matter much less than you'd expect. Surprising, isn't it?

Female student
Yeah, it is … Um, how about service? Does the study say anything about improving service? I don't think people are gonna subscribe if the paper doesn't arrive, or shows up late …

Professor

Or shows up wet, which by the way, happened to me this morning. Oh, absolutely. Service affects readership. In fact, improving your service is much more likely to increase your readership than making changes in your editorial content … Not only on-time delivery in good condition, but also things like efficient billing, affordability, um … Yes?

Female student
They could also, like, increase the number of sites where they sell single copies.

Professor
Certainly that's one way to improve service.

TRACK 72 TRANSCRIPT

Narrator
What does the student imply when he says this:

Male student
It seems to me that a lot of what you just mentioned doesn't line up with the principles of good journalism. Catering to readers' tastes may improve overall readership, but what about the social responsibilities that newspapers have?

TRACK 73 TRANSCRIPT

Narrator
Listen again to part of the lecture. Then answer the question.

Female student
I don't think people are gonna subscribe if the paper doesn't arrive, or shows up late …

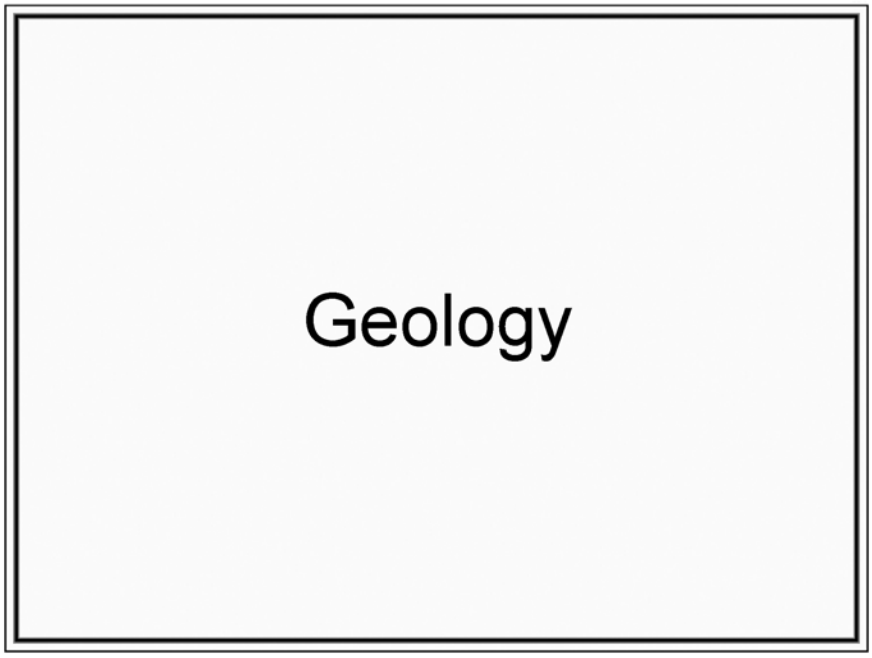
Professor

Or shows up wet, which by the way, happened to me this morning. Oh, absolutely. Service affects readership.

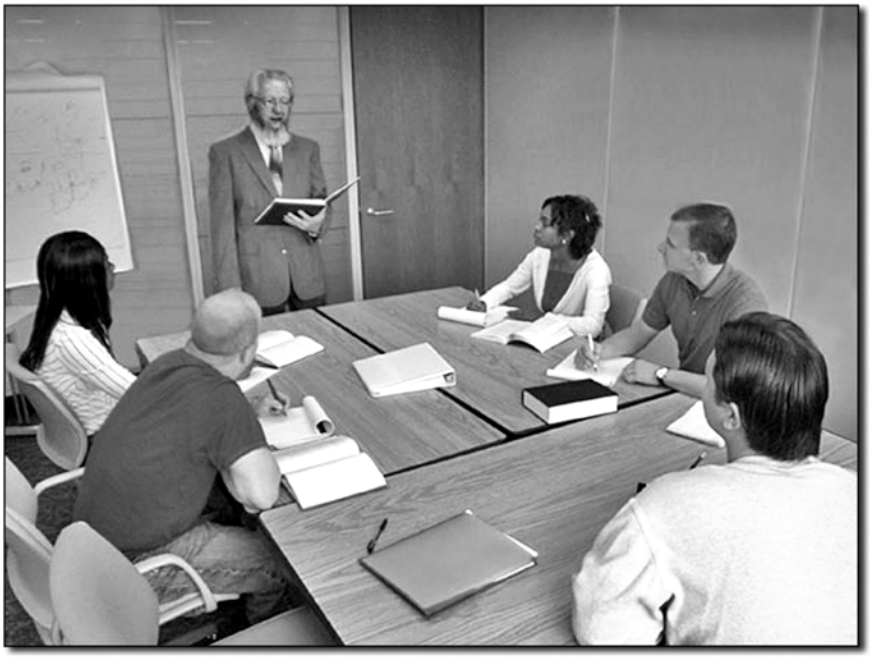
Narrator
What does the professor imply when he says this:

Professor
Or shows up wet, which by the way, happened to me this morning. Oh, absolutely.

TRACK 74 TRANSCRIPT



Narrator
Listen to part of a lecture in a geology class.



Professor
Um, beginning in the late 1960s, geologists began to uncover some evidence of a rather surprising kind when they looked … um … at various places around the world. What they found out when they examined rocks from about a … the period from about 750 million years ago to about 580 million years ago, they found that … it seemed that glaciers covered the entire surface of the Earth—from pole to pole, including the tropics.

Um … how did they come to this astonishing conclusion? What was the evidence for this? Especially when glaciers today are found only at the poles … or in the mountains.

Well, uh … basically when glaciers grow and move they leave behind a distinctive deposit consisting of primarily … of, at least on the top level, of ground up little bits of rock … almost … they almost look like rocks that have been deposited by streams, if you've ever seen those. And that's caused because, although the glacier is ice, it is actually flowing very slowly and as it moves it grinds the top layer of rock, it breaks off pieces and carries them away. So when you have glaciation

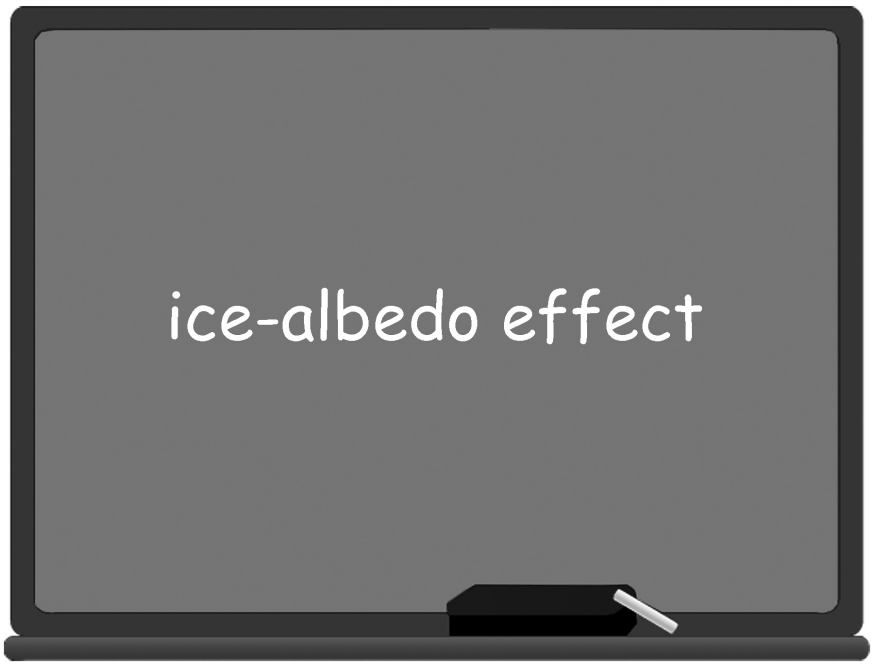
you have a distinctive pattern of these pieces of rock which are called “erratics.”

Erratics are rocks … they’re the stones that are often carried long distances by glaciers.

So, in the 1960s and onward up through the 1990s, we keep finding evidence for glaciation, no matter what the latitude … even in tropical latitudes. Now, today there are glaciers in the tropics but only at very high elevations. But 750 million years ago, apparently there were glaciers even at sea level in the tropics.

How could this have happened?

Well, first … the growth of glaciers, uh, benefits, if you will, from a kind of a positive feedback loop called the “ice-albedo effect.”



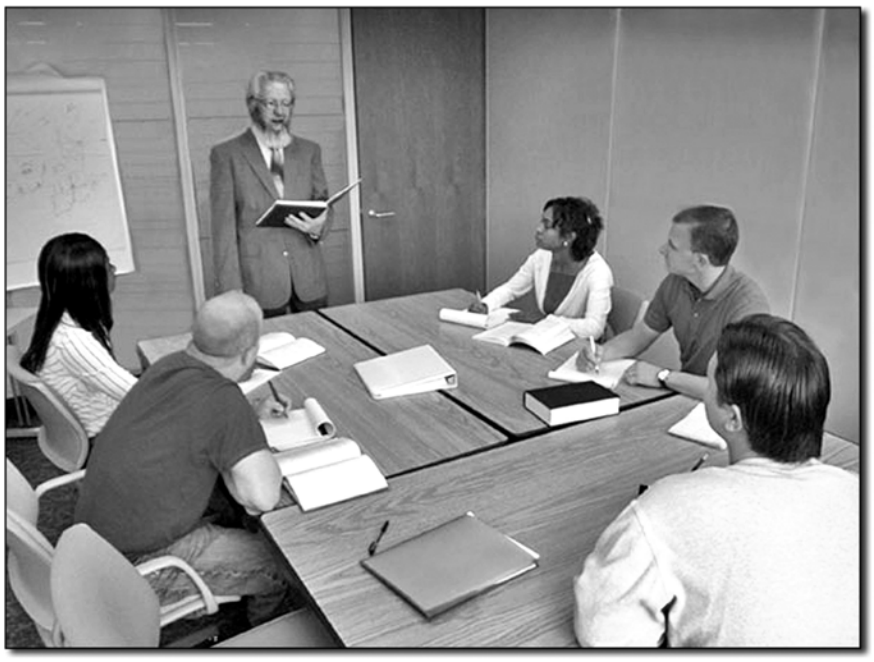
With the ice-albedo effect, glaciers—'cause they're white—reflect light and heat more … much more than does liquid water … or soil and rock, which are dark and absorb heat. So, the more glaciers there are, the more heat is reflected, so the climate gets cooler, and glaciers grow even more.

However … normally, on a global scale, there is a major process that functions to curb the growth of glaciers. And, that process involves carbon dioxide.

Now, we're all familiar with the notion that carbon dioxide is what we call a "greenhouse gas." The more carbon dioxide there is in the atmosphere, the more heat the atmosphere retains. That's what a greenhouse gas does. So, the greenhouse-gas effect is kinda the opposite of the albedo effect.

Um … now as it happens … when silicate rocks, which is a very common class of rock, when they're exposed to the air and to normal weathering, they erode. Carbon dioxide is attracted to these eroding rocks and binds to them, forming calcium carbonate.

Calcium carbonate is eventually washed into the ocean where it settles to the bottom. This process, this forming of calcium carbonate, has the effect of sucking the carbon dioxide out of the air and storing it at the bottom of the ocean.



Now, follow me here. The process that's sucking carbon dioxide out of

the air, keeping the greenhouse gas levels low, cannot happen if the rock is covered with ice.

So, while glaciers reflect light and heat … cooling the Earth, they at the same time cover rocks so there's less calcium carbonate formed … which leaves more carbon dioxide in the atmosphere. Higher levels of carbon dioxide keep the atmosphere warm … which slows the growth of glaciers. So, it's a balance, and the glacier growth remains pretty much under control.

Now, what happened 750 million years ago to upset that balance? It seems a relatively simple explanation actually …

750 million years ago … all the major continents are rocky, bare, and pretty much lined up along the equator; they hadn't yet moved to where they are today. So, what happened was, perhaps a slight cooling of … the very slight and temporary cooling of the Sun—which still happens from time to time—and the Earth starts to cool, the ice starts to spread on the oceans … starting at the poles.

Now, by the time the ice reaches about two-thirds of the way to the equator, it's too late.

See … because the continents are the last things to be covered by glaciers, they continue weathering … the rocks keep eroding and the carbon dioxide levels keep falling … So, the ice-albedo effect from the glaciers is increasing in strength while the atmosphere continues to lose its ability to retain heat making glacier growth unstoppable. Now you have what's called a "runaway freeze." And for perhaps as long as 50 million years, possibly with some interludes, the Earth was frozen from pole to pole, like a giant snowball.

TRACK 75 TRANSCRIPT

Narrator
Listen again to part of the lecture. Then answer the question.

Professor
Well, uh … basically when glaciers grow and move they leave behind a distinctive deposit consisting of primarily … of, at least on the top level, of ground up little bits of rock … almost … they almost look like rocks that have been deposited by streams, if you've ever seen those.

Narrator
Why does the professor say this:

Professor
… they almost look like rocks that have been deposited by streams, if you've ever seen those.

TRACK 76 TRANSCRIPT

Narrator
Sometimes one individual can have a great impact on a group or community. Select one person and explain how you think this person has affected others in the group or community. Give specific details and examples to explain your answer.

TRACK 77 TRANSCRIPT

Narrator
When some people visit a city or country for the first time, they prefer to take an organized tour. Other people prefer to explore new places on their own. Which do you prefer and why?

TRACK 78 TRANSCRIPT

Narrator
A university professor is switching to a new position. Read the article from the university about the professor. You will have 45 seconds to read the article. Begin reading now.

TRACK 79 TRANSCRIPT

Narrator
Now listen to two students discussing the article.

Female student
I don't like this at all.

Male student
Why not? She's done a lot for the philosophy department … like, well, hiring some great new teaching assistants … and putting together seminars.

Female student
Well, she has trouble organizing schedules.

Male student
Whadda'ya mean?

Female student
Well, she only realized last minute that she didn't have enough teaching assistants in the department, so some classes got cancelled.

Male student
Oh!

Female student
And I wanted to take a special two-week philosophy course in Europe … she was supposed to sign all the paperwork, but she didn't do it in time so I missed the whole trip!

Male student
Oh, wow. So organization's not her strong point, I guess.

Female student
Yeah. Besides, she's always critical. A lot of us on the team have complained to the university about her aggressive coaching style.

Male student
Oh, really? I met her … I mean, I thought she was nice.

Female student
Humph! Well, my friend … she had some serious problems in her family. She went to talk to Professor Fox and …

Male student
Yeah? What happened?

Female student
Well, she wanted emotional support from someone she looked up to, but instead Professor Fox made all kinds of critical comments. Maybe she's good at philosophy, but she's not a counselor. When students go to the dean, they go because they need someone to talk to, not so

someone can criticize them.

Narrator
The woman expresses her opinion about the change described in the article. Briefly summarize the change. Then state her opinion about the change and explain the reasons she gives for holding that opinion.

TRACK 80 TRANSCRIPT

Narrator
Read the following paragraph from a psychology textbook. You will have 45 seconds to read the passage. Begin reading now.

TRACK 81 TRANSCRIPT

Narrator
Now listen to part of a lecture in a psychology class.

Professor

Let's start with a physical attribute, say, uh, in kittens. Adult cats have extremely good vision, especially at night. But in order for a kitten's eyesight to develop normally, the kitten must be exposed to light during the first four months of its life. Without that, its eyesight will not develop correctly, it will never be able to see as well as it should. Even if the kitten is exposed to plenty of light *after* those four months of darkness, it won't matter, its vision will *never* develop normally.

As far as behavior's concerned, well, have you ever seen how little baby geese line up and then, single-file, they follow their parent goose around? Well, what would happen if they didn't see a parent goose within the first two days of their lives?

Actually, for normal behavior to develop, they must see what to follow within these first two days. What happens is, whatever large moving object they first see during those two days, they'll adopt that object as their parent … forever. It can never be changed. For example, suppose after the baby geese were hatched, the only other animal around was, I don't know, say a dog. OK? So the baby geese see a dog, but no other geese. Even though the dog is a totally different species, the geese will adopt it as their parent—they'll follow it around. And even if the parent geese reappear later, it won't matter to the babies—they'll follow the dog. After two days the behavior is fixed and they'll never exhibit the normal behavior of following their real parent—a goose.

Narrator
Using the examples of kittens and geese, explain the idea of a critical period.

TRACK 82 TRANSCRIPT

Narrator
Now listen to a conversation between two students talking about a problem at the dormitory.

Male student
Carrie, how come I always see you eating in the cafeteria lately? Didn't you tell me you had a kitchen in your dorm and you were gonna start to …

Female student
Uh-huh … and I was gonna start cooking my own meals there.

Male student
So you changed your mind?

Female student
It's not that. The kitchen's just always a mess. It's filthy—dirty dishes everywhere, the trash is overflowing. Nobody ever cleans up so it's gotten really disgusting.

Male student
We had that problem in my dorm last year. We ended up making a

schedule. Maybe you should try something like that.

Female student
What do you mean a schedule?

Male student
Well, people had to sign up to use the kitchen. Then whoever used it that day was responsible for cleaning it up.

Female student
So you mean if the kitchen's a mess on Tuesday, you just check and see who used it on Monday? Track 'em down and make 'em clean up the mess?

Male student
Uh-huh. It kinda works … as long as people sign up like they're supposed to.

Female student
Well, I was wondering if we could just pay to have someone clean the place, maybe once a week or something. If everybody chipped in a few dollars, we could hire someone to clean the whole kitchen area.

Male student
Wow. That'd be great if you could find someone. You mean like a student or something?

Female student
Yeah. As long as it's not too expensive.

Male student
You should check out the bulletin board in the student center. I've seen notes from students looking for different jobs—even cleaning jobs.

Female student
Good idea. And I'll see what the other people in my dorm wanna do.

Male student
Well, good luck. I hope it works out.

Narrator
Briefly summarize the problem the speakers are discussing. Then state which of the two solutions from the conversation you would recommend. Explain the reasons for your recommendation.

TRACK 83 TRANSCRIPT

Narrator
Now listen to part of a lecture in a business ethics class. The professor is discussing advertising.

Professor
Advertisers often try to sell you things by exaggerating about the quality of their products. It helps them get your attention. And exaggeration in advertising is usually considered acceptable, but not always. In the United States, there are laws to help determine what advertisers can say about their products. Basically, the law says

advertisers can exaggerate as long as no one's gonna actually believe the exaggeration and take it literally. So, the exaggeration has to be very extreme. If it's not extreme enough and someone would actually buy the product because they believed the exaggeration, that advertisement may be illegal.

Take this example: a vacuum cleaner manufacturer made a vacuum cleaner that didn't weigh very much, and they wanted to get the point across about how light it was. So they made a TV commercial showing the vacuum cleaner floating in the air while cleaning the house. Well, that was a visual exaggeration. It got people's attention. And because a floating vacuum cleaner is obviously impossible, the commercial was legal because no one would actually believe the visual exaggeration and buy the vacuum cleaner because they thought it floated in the air.

But what if the company wanted to show that the vacuum cleaner was very powerful? What if it made a television commercial where a person uses the vacuum cleaner to perfectly clean this really big and really dirty carpet in, uh, just a few seconds. Well that would really grab your attention. But the thing is, even though the commercial is an exaggeration, you can imagine someone actually believing it and buying the vacuum cleaner and then being very disappointed because the vacuum cleaner couldn't do that. So advertisers can't use an exaggeration like that because it's actually not extreme enough and someone might believe it.

Narrator
Using the example of the vacuum cleaner, explain when it is legally acceptable to use exaggeration in advertising and when it is not.

TRACK 84 TRANSCRIPT

Narrator
Now listen to part of a lecture on the topic you just read about.

Professor
Many people think that if you want to go into business for yourself, it's best to buy a franchise. But recently a study looked closely at franchises, and some of the findings call that idea into question.

One interesting point was that many franchise contracts force franchise owners to … to buy very specific goods and services, and those goods and services tend to be overpriced. In other words, even though there are equivalent goods and services available on the market, uh, that are considerably cheaper, the owners aren't *allowed* to buy them.

Another point was about advertising. When you buy a franchise, you agree to pay up to *six percent* of your sum total in sales—that's quite a lot of money. One thing you're supposed to get in return for this money is that the company does the advertising for you. But the company doesn't advertise your business. What gets advertised is the

company's brand, the *company's* products, which are sold by many other businesses in many other places. It turns out, individual franchise owners mostly get very little benefit—*much* less than they would get by spending even half that money to advertise their own business directly.

Finally, the biggest issue: security. Starting a franchise is not the most secure option out there. True, it's less risky than starting an independent business. But there's a *third* option that the passage didn't talk about. You can buy an *already existing independent* business from a previous owner. And the study showed that independent businesses bought from previous owners have *twice* as much chance of success during the first four years as franchises.

TRACK 85 TRANSCRIPT

Narrator
Summarize the points made in the lecture, being sure to explain how they challenge specific points made in the reading passage.

TRACK 86 TRANSCRIPT

Narrator
Listen to a conversation between a student and an admissions officer at City College.

Student
Hi. Can I ask you a few questions about starting classes during your summer session?

Admissions officer
Sure. Ask away! It starts next week, you know.

Student
Yeah, and I want to get some required courses out of the way so I can … maybe I can graduate one term earlier and get out into the job market sooner.

Admissions officer
That sounds like a good idea. Let me pull up the summer school database on my computer here …

Student
OK.

Admissions officer
OK, there it is. What's your student ID number?

Student
Oh, well, the thing is … I'm not actually admitted *here*. I'll be starting school upstate at Hooper University in the fall. But I'm down here for the summer, staying with my grandparents, 'cause I have a summer job near here.

Admissions officer
Oh, I see, well …

Student
So I'm outta luck?

Admissions officer
Well, you would be if you were starting anywhere but Hooper. But City College has a sort of special relationship with Hooper … a full exchange agreement … so our students can take classes at Hooper and vice versa. So if you can show me proof … um, your admissions letter from Hooper, then I can get you into our system here and give you an ID number.

Student
Oh, cool. So … um … I wanna take a math course and a science course—preferably biology. And I was also hoping to get my English composition course out of the way, too.

Admissions officer
Well all three of those courses are offered in the summer, but you've gotta understand that summer courses are condensed—you meet longer hours and all the assignments are doubled up because … it's the same amount of information presented and tested as in a regular term, but it's only six weeks long. Two courses are considered full time in summer term. Even if you weren't working, I couldn't let you register for more than that.

Student
Yeah, I was half expecting that. What about the schedule? Are classes only offered during the day?

Admissions officer
Well, during the week, we have some classes in the daytime and some at night, and on the weekends, we have some classes all day Saturday or all day Sunday for the six weeks.

Student
My job is pretty flexible, so one on a weekday and one on a weekend shouldn't be any problem. OK, so after I bring you my admissions letter, how do I sign up for the classes?

Admissions officer
Well, as soon as your student ID number is assigned and your information is in our admissions system, you can register by phone almost immediately.

Student
What about financial aid? Is it possible to get it for the summer?

Admissions officer
Sorry, but that's something you would've had to work out long before now. But the good news is that the tuition for our courses is about half of what you're going to be paying at Hooper.

Student
Oh, well that helps! Thank you so much for answering all my questions. I'll be back tomorrow with my letter.

Admissions officer
I won't be here then, but do you see that lady sitting at that desk over there? That's Ms. Brinker. I'll leave her a note about what we discussed, and she'll get you started.

Student

Cool.

TRACK 87 TRANSCRIPT

Narrator
Listen again to part of the conversation. Then answer the question.

Student
So I’m outta luck?

Admissions officer
Well, you would be if you were starting anywhere but Hooper.

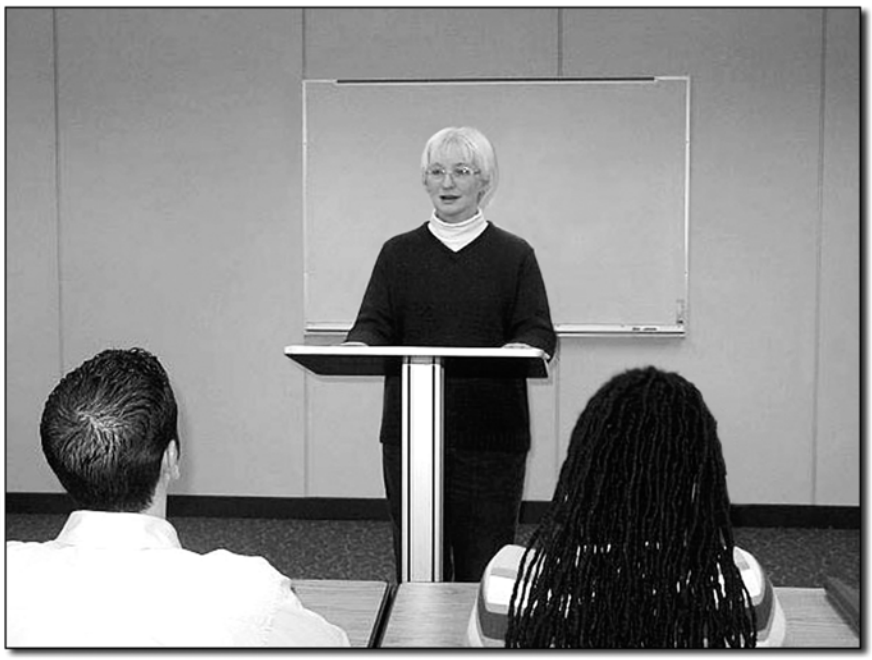
Narrator
What does the woman mean when she says this:

Admissions officer
Well, you would be if you were starting anywhere but Hooper.

TRACK 88 TRANSCRIPT

World History

Narrator
Listen to part of a lecture in a world history class.



Professor
In any introductory course, I think it's always a good idea to step back and ask ourselves "What are we studying in this class, and why are

we studying it?”

So, for example, when you looked at the title of this course in the catalog—“Introduction to World History”—what did you think you were getting into … what made you sign up for it—besides filling the social-science requirement?

Anyone …?

Male student
Well … just the—the history—of everything … you know, starting at the beginning … with … I guess, the Greeks and Romans … the Middle Ages, the Renaissance … you know, that kinda stuff … like what we did in high school.

Professor
OK … Now, what you’re describing is *one* approach to world history.

In fact, there are several approaches—basic “models” or “conceptual frameworks” of what we study when we “do” history. And what you studied in high school—what I call the “Western-Heritage Model,” this used to be the most common approach in U.S. high schools and colleges … in fact, it’s the model I learned with, when I was growing up back—oh, about a hundred years ago …

Uh … at Middletown High School, up in Maine … I guess it made sense to *my* teachers back then—since, well, the history of western Europe *was* the cultural heritage of everyone in my class … and this remained the dominant approach in most U.S. schools till … oh, maybe … 30, 40 years ago … But it doesn’t take more than a quick look around campus—even just this classroom today—to see that the student body in the U.S. is much more diverse than my little class in Middletown High … and this Western-Heritage Model was eventually replaced by—or sometimes combined with—one or more of the newer approaches … and I wanna take a minute to describe these to you today, so you can see where *this* course fits in.

OK … so … up until the mid-twentieth century, the basic purpose of

most world-history courses was to learn about a set of values … institutions … ideas … which were considered the "heritage" of the people of Europe—things like … democracy … legal systems … types of social organization … artistic achievements …

Now, as I said, this model gives us a rather *limited* view of history. So, in the 1960s and '70s it was combined with—or replaced by—what I call the "Different-Cultures Model." The '60s were a period in which people were demanding more relevance in the curriculum, and there was criticism of the *European* focus that you were likely to find in all the academic disciplines. For the most part, the Different-Cultures Model didn't challenge the basic assumptions of the Western-Heritage Model. What it did was insist on representing *other* civilizations and cultural categories, *in addition* to those of western Europe …

In other words, the heritage of *all* people: not just what goes back to the Greeks and Romans, but also the origins of African … Asian … Native American civilizations. Though more inclusive, it's still, basically, a "heritage model" … which brings us to a *third* approach, what I call the "Patterns-of-Change Model."

Like the Different-Cultures Model, this model presents a wide cultural perspective. But, with this model, we're no longer *limited* by notions of fixed cultural or geographical boundaries. So, then, studying world history is not so much a question of how a particular nation or ethnic group developed, but rather it's a look at common themes—conflicts … trends—that cut across modern-day borders of nations or ethnic groups. In my opinion, this is the best way of studying history, to better understand current-day trends and conflicts.

For example, let's take the study of the Islamic world. Well, when I first learned about Islamic civilization, it was from the perspective of Europeans. Now, with the Patterns-of-Change Model, we're looking at the past through a wider lens. So *we* would be more interested, say, in how interactions with Islamic civilization—the religion … art …

literature—affected cultures in Africa … India … Spain … and so on.

Or … let's take another example. Instead of looking at each cultural group as having a separate, *linear* development from some ancient origin, in *this* course we'll be looking for the common themes that go beyond cultural or regional distinctions. So … instead of studying … a particular succession of British kings … or a dynasty of Chinese emperors … in *this* course, we'll be looking at the broader concepts of monarchy, imperialism … and political transformation.

TRACK 89 TRANSCRIPT

Narrator
Listen again to part of the lecture. Then answer the question.

Professor
So, for example, when you looked at the title of this course in the catalog—"Introduction to World History"—what did you think you were getting into … what made you sign up for it—besides filling the social-science requirement?

Narrator
What is the professor's attitude?

TRACK 90 TRANSCRIPT

Environmental Science

Narrator
Listen to part of a lecture in an environmental science class.

Professor
OK, now let's talk about another environmental concern—soil erosion. It's a major problem, all around the world. Sometimes erosion

damages soil so severely that the land can no longer be cultivated and it's just abandoned. That happened in a big way right here in the United States. Some of you have probably read the novel *The Grapes of Wrath*. And maybe you remember that the story took place in the 1930s, during the time of what was called the Dust Bowl.

Dust Bowl is a term we use to describe an ecological and human disaster that took place in the southern Great Plains region. For nearly eight years, dust and sand blew across the area and covered everything. It was so bad it even made breathing and eating difficult … and farmers could only look on helplessly as their crops were destroyed and the land … and their lives … ruined.

Now, there'd always been droughts and strong winds in that region. But that was OK because the native grasses had deep roots in the ground that were able to hold the soil in place. So the wind wasn't able to, you know, erode the soil too badly. This changed, though, between 1900 and 1930. Agriculture was expanding rapidly then, and lots of farmers in the southern Great Plains wanted to grow wheat and other crops they could sell for cash—uh, crops that would be profitable. So they ripped up much of the grassland to plant these crops like wheat, which *don't* hold the soil down nearly as well. At the same time, livestock—uh, cattle, too many of them—were feeding on grasses in the area and damaging a lot of the grassland. So these animals caused even more erosion of the soil.

It didn't help that many of the actual owners of the land were not living anywhere near the area—a lot of the landowners lived way back east, and rented out the land to local people who lived on the land and worked on it, but, um, didn't have much reason to take really good care of it. I mean, it wasn't their land, right? The tenant farmers weren't really interested in conserving someone *else's* soil—not for the long term, anyway.

Also, some thought the land couldn't really be damaged—you know, that the soil was so rich and deep that … it didn't matter if the topsoil, the soil on the surface, blew away. They thought they could just plow up more. But they were wrong. Good topsoil takes a long time to form—it can literally take *thousands* of years to create good topsoil that will grow vegetation—and a very short time to ruin it. So after only a few years of excessive plowing, the land pretty much couldn't be farmed anymore. And people moved on to other places and let the old areas just sit there. And when they didn't plant anything on that land, that made it vulnerable to even more erosion. So it was kind of a vicious cycle, you could say.

Another problem, ironically, was that advances in technology were actually *destroying* the land, instead of improving it. A lot of farmers were using huge new tractors that dug deep into the ground and tore up a lot of the soil.

And then, of course, there was the weather. You know, when people look back on the Dust Bowl era, they tend to blame the drought—the lack of rain between 1934 and 1937. We can't ignore the drought—I mean, it was the worst on record at the time and did help bring on this disaster. But—without the soil destruction—the drought alone wouldn't have resulted in the devastation we call the Dust Bowl. It was poor farming techniques that made that happen.

Since then, though, we've paid more attention to trying to *prevent* a future Dust Bowl. One thing Congress did was enact a massive government effort to improve soil conservation, called the Soil Erosion Act. Under this law, large stretches of land in the southern Great Plains were identified as being at risk for erosion and were taken out of production and turned into permanent grassland. What that did—by protecting the land from excessive farming—was to stabilize the soil. Also, the Soil Erosion Act helped educate farmers to practice better soil conservation techniques, like reducing how often they plowed and using better equipment that would, you know, minimize damage to the

soil structure.

TRACK 91 TRANSCRIPT

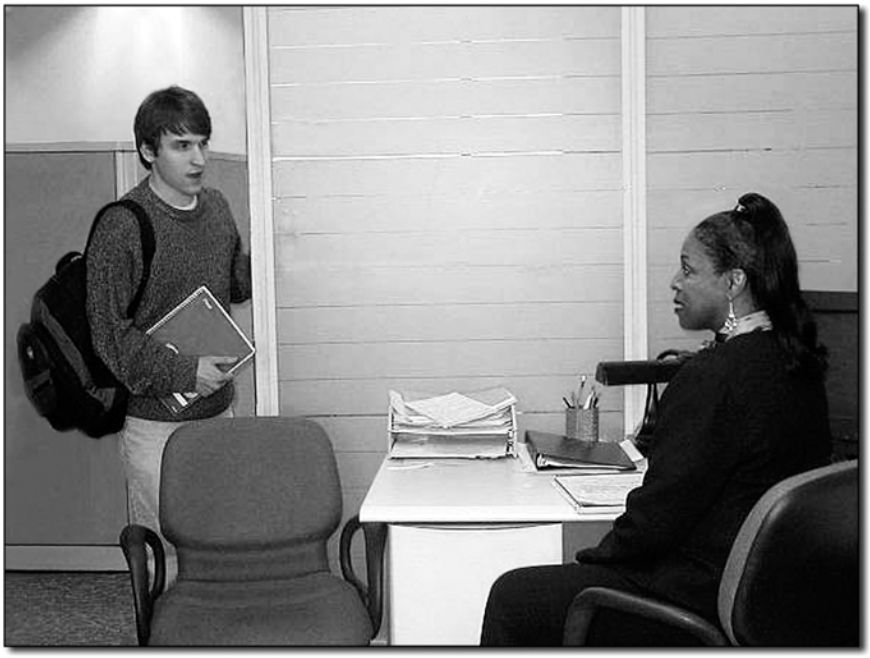
Narrator
Listen again to part of the lecture. Then answer the question.

Professor
A lot of the landowners lived way back east, and rented out the land to local people who lived on the land and worked on it, but, um, didn't have much reason to take really good care of it. I mean, it wasn't their land, right?

Narrator
Why does the professor say this:

Professor
I mean, it wasn't their land, right?

TRACK 92 TRANSCRIPT



Narrator
Listen to a conversation between a student and his academic advisor.

Student
Excuse me, Ms. Chambers? Um, I don't have an appointment, but I was kinda wondering if you had a minute to help me with something.

Academic advisor
Oh, sure. Have a seat.

What's on your mind?

Student
Well, uh … I guess I really don't know where to start … It's not just one class. It's … I'm not doing all that great. Like on my homework assignments. And in class. And I don't know why. I mean, I just don't get it! I-I read the assignments and I do the homework and I'm still not doing too well …

Academic advisor
Um, which classes? You mean, like Spanish … you're taking Spanish, right?

Student
Oh, no, not Spanish … if it weren't for Spanish I'd really be in trouble … no, but it's really all the others, psychology and sociology especially.

Academic advisor
Is it the material, what you read in the textbooks? You don't understand it?

Student
No, that's just it—I think I understand stuff when I read it …

Academic advisor
You don't re …

Student
Remember? Well, I remember names and definitions, but … like, in class, when the professor asks us about the theories, what they're all about, I never have the answer.

Academic advisor
Sounds like you're trying to learn by memorizing details, instead of picking out the main points of the reading. So, tell me, how do you study?

Student
Well, I—I … I mean, I read the assigned chapters, and I try to underline everything … like all of the words I don't know, and I always memorize the definitions. But, I dunno, when I get back in class, it always seems like the other students've gotten a better handle on what was in the reading. So, maybe it's just me …

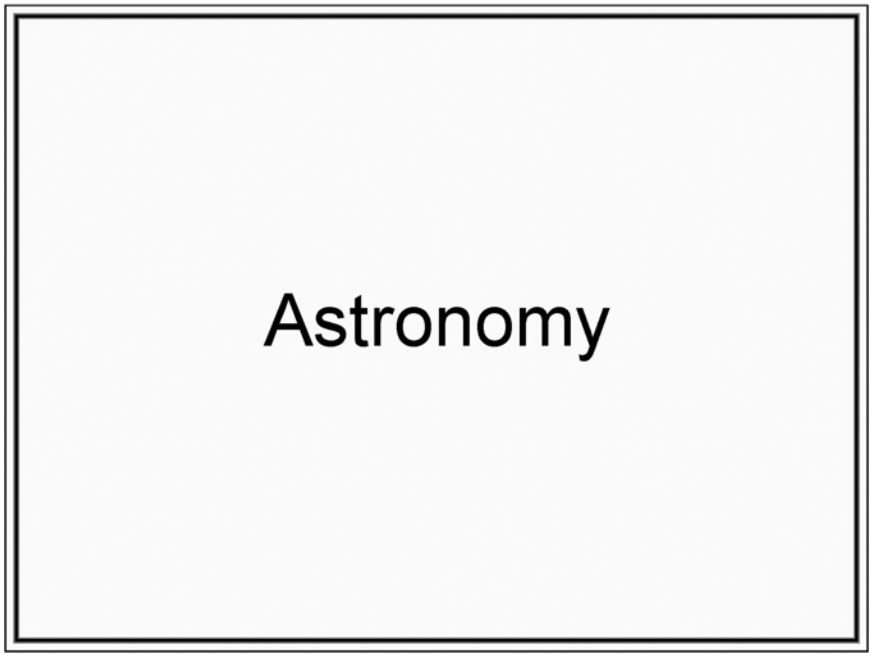
Academic advisor
Oh, it's not. Believe me. Lots of students … You know, my first year as a college student … I really had a hard time. I spent hours reading in the library … but I was just wasting time, 'cause I wasn't really studying the right things. I did the same sort of thing it sounds like you're doing, not focusing on what's really important in the reading, but on the smaller details.

Student
Yeah, maybe. But I spend so much time studying, it seems like I should be doing better.

Academic advisor
The first year of college can be a little overwhelming, I know. Point is,

lots of students have trouble adjusting at first, you know, figuring out how to study, how to use their time, you know, to your best advantage. It's good that you do the assigned readings … but, you've … well, I think you're unnecessarily underlining and memorizing. That takes a lot of time, and, well, it's not the best use of your time. Here's something you can do: when you read, just read the assigned sections, and then … and without looking back at the text—write a summary of the key points, the main ideas in the chapter. And after you do that, it-it's good to go back and reread the text. And you look for any examples you can find to support those key points. Let me show you an example of what I mean.

TRACK 93 TRANSCRIPT



Narrator
Listen to part of a lecture in an astronomy class.

Professor
I'll tell you a story about how one astronomy problem was solved. It happened many years ago, but you'll see that it's interesting and still relevant. Two, three hundred years ago, astronomers already had telescopes, but they were not as powerful as those we have now. Let's say … they were at the level of telescopes amateur astronomers use today. Tell me, what do you see in the night sky when you use a telescope like that? Quick, tell me.

Female student
Planets …

Professor
Right …

Male student
Even … like … the moons of Jupiter?

Professor
Right …

Female student

Stars.

Professor
OK … what else? … You think that's all? … Ever heard of nebulae? … I bet you have … Well, let's just, um, put it up anyway …

Nebulae are small fuzzy patches you see in the sky, they look like little clouds. Many of them have a spiral shape, and that's why we called them *spiral* nebulae … So astronomers in the eighteenth century … *eighteenth* century … when they looked through the telescope, they could see planets—and they knew those were planets … the moons of Jupiter—and they knew they were the moons of Jupiter … and then they saw spiral nebulae and they didn't have a clue.

What could those be? So, some of them thought—"these things are cloudy and fuzzy, so they're probably small clouds of cosmic dust, and they don't have to be very far away from us." But there were others who thought, "OK, the things *look* small and fuzzy, but *maybe* they're actually distant galaxies of stars, but we can't see the stars, because they're *so* far away and they seem so tiny that they *look* like dust, and

even the whole galaxy looks like a tiny little cloud."

Which of the two theories do you think was more … uh, surprising?

Male student
The galaxy one.

Professor
And why?

Male student
Well, I mean it assumed that the nebulae are not what they look like at first sight. The first theory assumed that, right?

Professor
OK. And now tell me this … which one would have seemed more likely at the time?

Male student
Uh … They couldn't tell.

Professor

Right. Two morals here: first, there can be different explanations for the same observation. And second, “obvious” doesn’t necessarily mean “right” … What happened next was … for a long time nothing. More than 150 years. No one could decide … Both hypotheses seemed plausible … And a lot was at stake—because if the *galaxy* theory was right, it would be proof that the universe is enormous … and if the *dust* theory was right … maybe *not* so enormous. So the size of the universe was at stake … Finally in the 1920s we came up with a telescope that was strong enough to tell us something new here. When we used it to look at the spiral nebulae, we saw … well, we were not absolutely sure … but it really looked like there were stars in those nebulae. So not dust after all, but stars …

But how far away were they, really? How would you measure that? Any ideas? Laura?

Female student
Well, how about measuring how strong those stars shine? Because, if the star is far away, then its light would be weak, right?

Professor

Yes … but there's a problem here. You need to know how bright the star is in the first place, because some stars are naturally much brighter than others. So, if you see a star that's weak … it can mean one of two things …

Female student
Oh … it's either far away or it's just a weak star.

Professor
And you can't really always tell which. But you're on the right track. There is a kind of star where you can *calculate* its natural brightness … and—you guessed it—we found some in the nebulae. It's called a *variable* star—or a "variable" for short—because its brightness *varies* in regular intervals. I won't go into detail here, but … basically … the longer the interval, the brighter the star, so from the *length* of those intervals we were able to calculate their natural brightness. This told us how distant they were—and many turned out to be very, very far away. So we can be sure that the spiral nebulae really *are* very distant galaxies—which is what some eighteenth-century astronomers *guessed* but didn't have the instruments to prove …

Now, one reason I told you this story is that *today* there are still plenty of situations when we see something out there, but we really aren't sure *what* it is. An example of one such mysterious observation would be gamma-ray bursters.

We've known about these gamma-ray bursters for a long time now, but we can't all agree on what they are.

TRACK 94 TRANSCRIPT

Narrator
Listen again to part of the lecture. Then answer the question.

Professor
But how far away were they, really? How would you measure that? Any ideas? Laura?

Female student
Well, how about measuring how strong those stars shine? Because, if the star is far away, then its light would be weak, right?

Professor
Yes … but there's a problem here. You need to know how bright the star is in the first place, because some stars are naturally much brighter than others. So, if you see a star that's weak … it can mean

one of two things …

Female student
Oh … it's either far away or it's just a weak star.

Narrator
What can be inferred about the student when she says this:

Female student
Oh … it's either far away or it's just a weak star.

TRACK 95 TRANSCRIPT

Narrator
Listen to part of a lecture in an art history class.

Professor
Today we're going to talk about how to look at a piece of art, how to "*read*" it—what you should look for … what aspects of it you should evaluate. A lot of people think that if you stand in front of a work of art and gaze at it for a couple of minutes, you're evaluating it. But truly *reading* a piece of art, evaluating it *properly*, is a complex process, a process that takes *time*.

When we're confronted with a piece of art, there're several things we have to keep in mind, for example, its beauty … that's where aesthetics comes in.

Aesthetics is the philosophy that deals with the definition of beauty, which goes all the way back to ancient Greece. They, um, the early Greek philosophers said that beauty and art are based on imitation. Their feeling about art was that it's beautiful when it imitates life; they thought that the *truthfulness* of an image, how truthful it is to life, determines its value as art. Today we have a broader definition of aesthetics.

Now *don't* identify aesthetics as personal taste. Taste is bound by time; taste is tied to a society, a given set of moral values, usually. You may not like a piece of art from a different culture—it may not be your taste—but you appreciate its beauty 'cause you recognize certain aesthetic principles. Art generally adheres to certain aesthetic principles like balance, uh, balanced proportions, contrast, movement, or rhythm.

We'll discuss aesthetics more in detail when we look at some pieces of art together. Another thing to keep in mind in evaluating art is that art has a *purpose*, generally determined by the artist. You may not know what it is, and you don't need to know what it is to appreciate a piece of art, but it helps. For example, if you know what the artist's purpose is … if you know that a piece of art expresses the artist's feeling about a political or social situation, you'll probably look at it differently.

Now, besides beauty and purpose, what are the other aspects of a piece of art that need to be evaluated? Very simple—you examine a piece of art following these four formal steps. The first step is *description* … describe physical characteristics of the piece—like this painting is large, it's oil on canvas. Describe the subject—it's a person, it's a landscape—or predominant colors like, um, earth colors … that's a description.

OK? So, you've described the piece. The next step is *analysis*. You're looking at the piece for any universal symbols, characters, or themes it might contain. Certain symbols are universal, and the artist counts on

your understanding of symbols. Even colors have symbolic significance, as you may know. And also *objects* depicted in a piece of art are often used to represent an abstract idea. Like wheels or spheres—they look like circles, right?—so wheels and spheres represent wholeness and continuity. I have a handout, a list of these symbols and images and their interpretations, that I'll give you later. But for now, the point is that after you describe the piece of art, you *analyze* its content … you determine whether it contains elements that the artist is using to try to convey a certain meaning.

If it does, the next step is *interpretation*. Interpretation follows analysis very closely. You try to interpret the meaning of the symbols you identified in the piece. Almost all art has an obvious and an implied meaning. The implied meaning is hidden in the symbolic system expressed in the piece of art. What we see depicted is *one* scene, but there can be several levels of meaning. Your interpretation of these symbols makes clear what the artist is trying to tell us.

The last step is *judgment or opinion*—what do you think of the piece, is it powerful or boring?—but I give that hardly any weight. If the four steps were to be divided up into a chart, then description, analysis, and interpretation would take up 99 percent. Your opinion is not important in understanding a piece of art. It's nice to say: I like it … I wouldn't mind hanging it over my couch, but to evaluate a piece of art, it's not critical.

OK. Now you know what I mean by "reading" a piece of art, and what it entails. Try to keep all that in mind next time you go to an art museum. I can tell you right now that you probably won't be able to look at more than 12 pieces of art during that visit.

OK, now let's look at a slide of a piece of art and try to "read" it together.

TRACK 96 TRANSCRIPT

Narrator
What does the professor imply when he says this:

Professor
Try to keep all that in mind next time you go to an art museum. I can tell you right now that you probably won't be able to look at more than 12 pieces of art during that visit.

TRACK 97 TRANSCRIPT

Narrator
Talk about a city or town you have visited in the past. Explain what you liked most about the city and why. Include specific reasons and examples in your response.

TRACK 98 TRANSCRIPT

Narrator
Some people enjoy watching movies or television in their spare time. Others prefer reading books or magazines. State which you prefer and explain why.

TRACK 99 TRANSCRIPT

Narrator
Read the announcement about City University's plans for the campus gym. You will have 45 seconds to read. Begin reading now.

TRACK 100 TRANSCRIPT

Narrator
Listen to two students discussing the plan.

Male student
Hey, have you read about this … the plans for the gym?

Female student
Yeah, but I could sure think of better things to do with the money.

Male student
You're kidding. I thought you'd be all for it. You go to the gym all the time.

Female student
Yeah, but I never have any problem. Sure there're a lot of people there but I never have to wait to use the exercise bikes, or even the weight machines. Do you?

Male student
Not really. It's not *that* busy.

Female student

The other thing is … well, we have all sorts of exercise programs, a terrific swimming pool that's always open, great running paths, all kinds of sports teams. I'm just saying that a bunch of new machines in the gym aren't gonna make any difference. People like to get their exercise in different ways … and on this campus there're already plenty of choices.

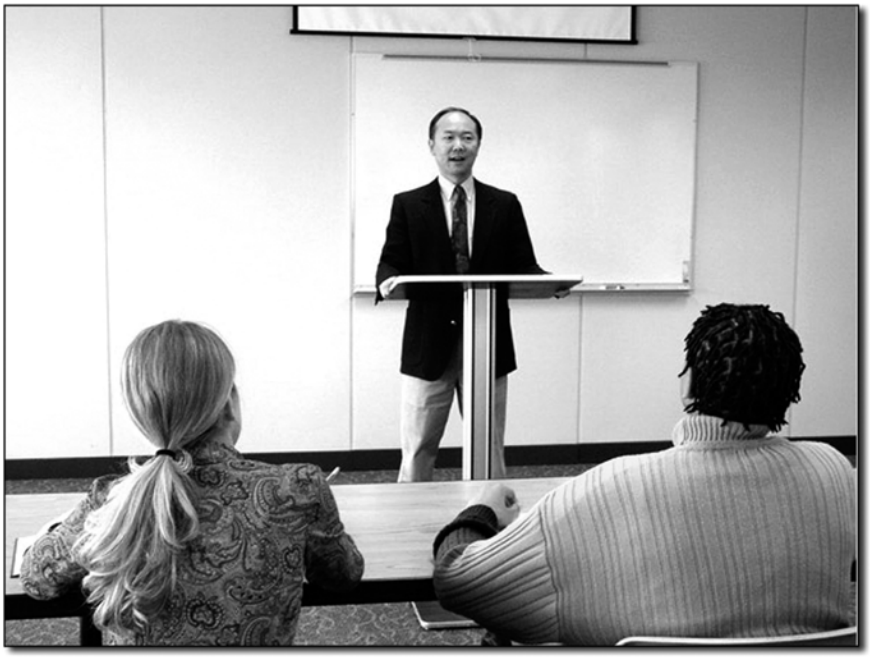
Male student
You may be right …

Narrator
The woman expresses her opinion about the plan described in the announcement. Briefly summarize the plan. Then state her opinion about the plan and explain the reasons she gives for holding that opinion.

TRACK 101 TRANSCRIPT

Narrator
Now read the passage about keystone species. You will have 50 seconds to read the passage. Begin reading now.

TRACK 102 TRANSCRIPT



Narrator
Now listen to part of a lecture on this topic in a biology class.

Professor
Let's take the elephant, for example. Elephants are an important species in the African grasslands. Without them, the grasslands actually stop being grasslands at all if you can believe it—they change to forests. What happens is that in the grasslands some types of seeds other than grasses can sprout and begin to grow, which … if they're left alone … they could eventually grow into shrubs or trees. But what happens is that elephants come along and eat the sprouting plants … or the plants get crushed under the elephants' feet. And even if a plant or two manage to survive, it won't last long because sooner or later the elephant will knock it over or pull it out of the ground.

So what if the elephants weren't there and these plants were allowed to grow to maturity? Well, pretty soon there'd be whole clusters of trees. Their branches and leaves would shade the grasses … and without the sunlight, the grasses won't survive. So pretty soon the grass disappears, trees grow in its place and eventually the whole

grassland changes to forest.

And as you can imagine the elephant has an impact on other animal species in the habitat as well. A lot of animals in this habitat rely on the grasses for food, for example. When the grasses disappear—when their food source disappears—these animals are eventually forced to leave. Gradually, some new species come into the habitat—species that are better suited to life in the forest. These new species replace the ones that left. So you can see the influence of the elephant on the environment is significant.

Narrator
The professor gives examples of the effects of elephants on the African grasslands habitat. Using the examples from the talk, explain why elephants are considered a keystone species.

TRACK 103 TRANSCRIPT

Narrator
Listen to a conversation between two biology instructors.

Female instructor
Good morning, Paul.

Male instructor
Morning. Hey, I just heard something about a problem with registration for one of the biology classes? Do you know anything about that?

Female instructor
Yeah. It looks like the Developmental Biology class is already full. Some of the students are complaining—it's a required course for them and they're pretty upset that they can't get it in this semester … and it's not offered next semester.

Male instructor
I can see that. They have to take that class before they can take some of the upper-level courses. So how many students are we talking about?

Female instructor
Well, so far, it looks like there are about 10 students who couldn't get in but need to take the course this semester.

Male instructor
Well, we should open a new section. I'm sure we can hire another teaching assistant to teach the class. Or maybe one of the TAs would be willing to teach two classes—they always want the extra money.

Female instructor
A new section's a great idea but are all 10 students really gonna be available at the same time?

Male instructor
Maybe not, but if they really need the course, they'll have to revise their schedules … it *is* a requirement.

Female instructor
Hmm. Another option is to get some of the students who don't need

the class this semester … get them to drop the class. We should probably focus on the first-year students since they don't really need the class yet.

Male instructor
We could send out a letter explaining the situation … and let them know that they'll get top priority if they want to register for the class next year.

Female instructor
We might have to deal with some angry students.

Male instructor
Well, what can we do?

Narrator
Briefly summarize the problem the speakers are discussing. Then state which of the two solutions from the conversation you would recommend. Explain the reasons for your recommendation.

TRACK 104 TRANSCRIPT

Narrator
Now listen to part of a lecture in a creative writing class.

Professor
As writers, you want the dialogue in your story to have impact. Well, there are many ways to do that, and I'm gonna talk about two of them —exaggeration and understatement. Now, understatement is the opposite of exaggeration, but you can actually use them both to do the same thing—to create emphasis or impact. Let's compare them and see how they do that.

OK, exaggeration. When you want your characters to emphasize a point, you can have them describe things or their feelings as bigger or more extreme than they really are. For example, your main character comes back from a very long walk and she's very tired. Well, you can have her say "Boy, I'm tired." *Or* you can have her say, "I can't take another step." Well, *of course* she can take another step, but you see, if she exaggerates, she'll make her point in a more forceful and interesting way.

But you can also create emphasis with *understatement*, and like I said it's the opposite of exaggeration, but it does the same thing. With understatement you emphasize by saying, by saying *less*, by saying less than you mean. That sounds paradoxical, so I'll give you an example. From real life.

My friend Ed is a very talented cook. So last week he cooked me a delicious meal. Now, I could've said to him, "This food is really great, Ed," but that's kinda boring. Plus, Ed *knew* I thought the food was delicious. I'd eaten three servings. So instead I said, "This food's not bad, Ed." Now clearly the food was a lot *better* than *not bad*. But by understating, by describing the food as—as *less* good than it really was, I actually made a stronger statement. The characters in your stories can do this too.

Narrator
Using the examples mentioned by the professor, describe two ways that writers create emphasis when writing dialogue.

TRACK 105 TRANSCRIPT

Narrator
Now listen to part of a lecture on the topic you just read about.

Professor
Even if computerized smart cars meet all the technological expectations set for them, it's not clear that they'd produce the benefits some have predicted.

Smart cars will still get into some accidents. After all, even the most technologically advanced devices fail occasionally. And since the smart car technology will allow cars to be more tightly packed together on the roads, these accidents will be pileups that involve many more cars and so be much worse than accidents that occur today. Overall, there is little reason to believe that smart cars will save lives or reduce the number of injuries in automobile accidents.

Second, let's talk about the potential to increase highway speeds and therefore decrease commuting time. Well, history has consistently shown that when some driving convenience is introduced, more and more people decide to drive because they expect an easier driving experience. But then the increased number of drivers in the case of smart cars of the future would not decrease commuting time. This is because the traffic congestion caused by the additional cars on the road would not allow the drivers to take advantage of the smart cars' potential for higher speeds.

And finally, it's not reasonable to expect that smart cars will save drivers money. The global positioning technology required to direct smart cars to their desired destinations is very expensive, and smart cars will need other costly technologies too, such as sensors that control how far a smart car stays behind the car in front of it. Moreover, the advanced technology of smart cars will make repairs to them more expensive than repairs on conventional automobiles. These new expenses will more than offset the expected savings on the repair and replacement of traditional mechanical car parts.

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TRACK 106 TRANSCRIPT

Narrator
Summarize the points made in the lecture, being sure to explain how they challenge specific points made in the reading passage.