

Building Skills for the TOEFL® iBT

Second Edition

Beginning

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Building Skills for the TOEFL® iBT Second Edition

Paul Edmunds · Nancie McKinnon · Jeff Zeter

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Introduction to the TOEFL® iBT

What to Expect on the TOEFL®

The TOEFL® (Test of English as a Foreign Language) is an Internet-based test designed to assess English proficiency in non-native speakers who want to achieve academic success and communicate effectively in English. Most people take the TOEFL® iBT to gain admission into universities and colleges where instruction is in English. Additionally, many employers and government agencies use the scores to determine a person's English ability. It is not meant to test academic knowledge or computer ability, and as such, questions are always based on information found in the test (computer tutorials are available for those not familiar with personal computers). We have designed this practice book to be as similar as possible to the actual TOEFL® iBT in format and appearance in order to better prepare you for the test.

The TOEFL® iBT is divided into four sections: reading, listening, speaking, and writing.

Major Changes to the Internet-Based TOEFL® (iBT)

● General

- ⇒ The test measures all four language skills equally; a speaking section is included.
- ⇒ The Test of Spoken English® (TSE®) will now be part of the TOEFL®. Test takers will no longer take the TSE® as a separate test.
- ⇒ Order of sections on the test:
 - Reading
 - Listening
 - (10-minute break)
 - Speaking
 - Writing
- ⇒ The test is approximately four hours long and is taken in one day.
- ⇒ Tests are administered through the Internet in Educational Testing Service (ETS) test centers around the world.
- ⇒ There is no structure section, as there was in previous tests.
- ⇒ Note-taking is allowed in every section, and is not marked.
- ⇒ The test is a linear exam, not computer adaptive; each test taker receives the same range of questions.
- ⇒ The scores will be viewed online.

● Reading / Listening

- ⇒ Passages for the reading and listening sections are longer than those in the computer-based test (CBT). Refer to the introduction of individual sections for further details.

● Speaking / Writing

- ⇒ Tasks for the speaking and writing sections include integrated questions that require more than one skill to complete, i.e., reading and/or listening, then speaking or writing.
- ⇒ For the speaking section, test takers speak into a microphone, and their responses are digitized and sent to the ETS Online Scoring Network.
- ⇒ For the writing section, test takers must type their responses.

The TOEFL® iBT Format

Section	Number of Questions	Time (minutes)	Score
Reading	3–5 passages <ul style="list-style-type: none"> • 12–14 questions each • 700 words per passage 	60–100	30 points
Listening	4–6 lectures <ul style="list-style-type: none"> • 6 questions each • 500–800 words (4–6 min.) 2–3 conversations <ul style="list-style-type: none"> • 5 questions each • 400–500 words (2–3 min.) 	60–90	30 points
BREAK		10	
Speaking	2 independent tasks <ul style="list-style-type: none"> • 1 personal experience • 1 preference/choice 2 integrated tasks (Read-Listen-Speak) <ul style="list-style-type: none"> • Reading 100 words • Conversation 200 words (1–2 min.) • Lecture 200–300 words (1–2 min.) 2 integrated tasks (Listen-Speak) <ul style="list-style-type: none"> • Conversation 200 words (1–2 min.) • Lecture 200–300 words (1–2 min.) 	20	30 points
Writing	1 independent task 1 integrated task (Read-Listen-Write) <ul style="list-style-type: none"> - Reading 250–300 words - Lecture 250–300 words (2 min.) 	50	30 points

Study Tips

The only way to be certain of an excellent TOEFL® score is to be able to read, write, understand, and speak English like an educated native speaker. You have no doubt been developing your ability in these areas for many years now. Unfortunately, this is not something one can accomplish by studying in the traditional way. However, research conducted over the years by applied linguists, psychologists, and educators has yielded a considerable amount of information on the best methods for refining these skills for the purposes of standardized tests. By keeping the following study tips in mind, you can optimize your study habits and achieve the highest possible scores with the level of language proficiency you have obtained.

- Prepare a study area for yourself. This should include the following:
 - ⇒ A comfortable chair and spacious table or desk
 - ⇒ Suitable lighting
 - ⇒ Good ventilation and air quality – an open window or a house plant are good ideas
 - ⇒ An area free of distractions such as outside noise, television, or radio (unless you are using the television or radio to study)
 - ⇒ Proper space to keep all the materials you will need when studying, such as books, paper, pens, pencils, a tape recorder or other recording device, and if possible, a computer with Internet access
- Study regularly over a long period of time. Do not study to the point of exhaustion, as this has been shown to be ineffective in retaining information.
- “Cramming,” i.e., studying intensely for a day or two before an exam, is not effective, as it strains your general health and well-being and does not lead to good long-term retention of information or skills.
- Psychologists have discovered a principle called “state-specific memory.” This means you remember things better in the same conditions that you learned them. For example, if you always study math at night, you will do better on a math exam taken at night. Use this concept to your advantage. If you know when and under what conditions you will take the TOEFL®, simulate these in your study environment and habits. For instance, if you plan to take the TOEFL® on a Saturday afternoon, then make a point to study in the afternoons.

- Be well rested on the day of the exam. Do not stay up all night studying. Also, eat healthy foods including fruits and vegetables.
- Be relaxed and confident. Do the best that you can and do not worry excessively about any mistakes or uncertainties.

Registering For the TOEFL®

Students must get registration information for the TOEFL®. Registration information can be obtained online at the ETS website. The Internet address is www.ets.org/toefl. The website provides information such as testing locations, costs, and identification requirements. The website also provides other test-preparation material.

The registration information, such as the test center location, identification requirements, and costs, will vary depending on the country in which you take the test. Be sure to follow these requirements carefully. If you do not have the proper requirements in order, you may not be able to take the test. Remember that if you register online, you will need to have your credit card information ready.

What TOEFL® Scores Are Used For

The primary use of TOEFL® scores is for acceptance into universities, colleges, and other institutions where English is the main language of instruction. It is estimated that about 4,400 such institutions require TOEFL® scores for admission.

The highest possible score on the iBT is 120 points. Different institutions will have their own specific score requirements for admission. For that reason, it is very important to check with each institution individually to find out what its admission requirements are. For example, a passing score at one university may not be a passing score at another university. It is the responsibility of the student to find out what the requirements are for each institution.

Although TOEFL® scores are used primarily to satisfy the admissions requirements of universities, they are also necessary when applying for certain kinds of jobs. Many government agencies as well as multinational corporations require applicants to submit TOEFL® scores. Even English-teaching institutes may request TOEFL® scores in order to place students at the appropriate level of instruction.

Certainly, doing well on the TOEFL® can be very helpful for students in both their academic and professional careers. However, success requires consistent and dedicated practice. We hope that you will take full advantage of this practice book and study hard. Your hard work and dedication will provide you with the best opportunity to do well on the TOEFL® and meet your goals for the future.

Academic Subjects in the TOEFL®

The following is a list of academic subject areas typically seen in the TOEFL®:

Humanities	Social Sciences	Biological Sciences	Physical Sciences
Archaeology	Anthropology	Agriculture	Astronomy
Architecture	Business	Anatomy	Chemistry
Art History	Economics	Biology	Computer Science
Fine Arts	Education	Botany	Engineering
Linguistics	Geography	Entomology	Geology
Literature	History	Environmental Science	Mathematics
Music	Political Science	Medicine	Oceanography
Philosophy	Psychology	Zoology	Physics
	Public Health		
	Sociology		
	Urban Studies		

**Building
Skills for the**

TOEFL® iBT

READING



READING

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The TOEFL® iBT Reading Section

In the reading section of the TOEFL® iBT, you will be required to read three to five passages on varying topics. After each passage, you will answer twelve to fourteen questions that test your ability to understand vocabulary, sentence structure, and factual information, as well as implied information and the writer's intention. You will not see the questions until after you have read the passage. While answering the questions, you will be permitted to look back at the reading. You do not need any previous knowledge on the topic in order to answer the questions correctly.

● Passage Types

1. Exposition — Material that provides information about or an explanation of a topic
2. Argumentation — Material that presents a point of view about a topic and provides supporting evidence in favor of a position
3. Narrative — An account of a person's life or a historical event

● Question Types

Questions in the reading section of the TOEFL® iBT are multiple choice and much like those found in older versions of the TOEFL®. The following list explains the question types and number of each type on the test. Questions will not necessarily appear in this order.

Question Type	Number	Task
Factual Information	3-6	Select details or facts provided in the passage.
Negative Factual Information	0-2	Identify something that is not in the passage or not true according to the passage.
Inference	0-2	Select an answer based on information not actually stated in the passage, but that is implied or can be inferred.
Rhetorical Purpose	0-2	Identify the author's method in explaining a point, or why the author has mentioned something.
Vocabulary	3-5	Choose the best synonym.
Pronoun Reference	0-2	Identify the noun to which a pronoun refers.
Sentence Simplification	0-1	Choose the best paraphrase of part of the passage or a sentence and analyze its meaning.

The other three question types found in the TOEFL® iBT are not multiple-choice and are types not found on older versions of the TOEFL®. One is a sentence insertion activity, and the last question can be one of two types of activities: either a summary question or a table/chart question.

Text Insertion Question

This question shows you a sentence that could be added to the passage. You must decide where the sentence would best fit in the passage. While you are reading, you will notice several icons that look like this ■ on the actual Internet-based test. You will be required to click on the square [■] where you feel the new sentence should be added. For the purposes of this book, simply choose the letter beside the appropriate square. This question tests how well you understand the organization of the passage, as well as grammatical connections between sentences.

Table/Chart Question

For passages on topics that explain groups or categories of information, you may be asked to demonstrate your understanding of the groups or categories mentioned by completing a chart. There will be two or three categories and either five or seven correct choices. Two of the answer choices will not be used. This question requires the ability to organize important information and to understand relationships between major ideas presented in the passage.

- **Example:**

Frogs	Toads	
_____	_____	(A) bumpy, dry skin
_____	_____	(B) eggs in a chain
_____	_____	(C) build nests
_____	_____	(D) shorter legs
_____	_____	(E) eggs in a bunch
_____	_____	(F) have live babies
_____	_____	(G) longer legs
_____	_____	(H) smooth, wet skin
_____	_____	(I) bulging eyes

- **Correct answers:**

Frogs	Toads
eggs in a bunch	bumpy, dry skin
longer legs	eggs in a chain
smooth, wet skin	shorter legs
bulging eyes	

- **Not used:** build nests, have live babies

The chart questions are worth up to three points if there are five correct answers and four points if there are seven correct answers. Partial credit is awarded for having some but not all correct answers.

Summary Question

In this type of question, you will be presented with an introductory sentence for a brief summary of the passage. You will then find six additional sentences. Three of the sentences express major ideas in the passage, and the others do not. Incorrect choices will be either minor ideas or ideas that are not presented in the passage. This question measures your ability to recognize important ideas from the passage and distinguish them from minor ideas or ideas that are not in the passage.

- **Example:**

First sentence of introduction:

Animals in the desert have different ways to live with little water.

- ⇒ Camels can live for a long time without water.
- ⇒ Desert plants do not need much water.
- ⇒ Desert reptiles and birds do not sweat.
- ⇒ Larger animals get the water they need from things they eat.
- ⇒ At night, desert temperatures can drop below ten degrees Celsius.
- ⇒ Some animals stay underground to keep water in their skin.

- **Correct answers:**

First sentence of introduction:

Animals in the desert have different ways to live with little water.

- ⇒ Desert reptiles and birds do not sweat.
- ⇒ Larger animals get the water they need from things they eat.
- ⇒ Some animals stay underground to keep water in their skin.

- **Not used:**

- ⇒ Camels can live for a long time without water. (minor detail)
- ⇒ Desert plants do not need much water. (incorrect information)
- ⇒ At night, desert temperatures can drop below ten degrees Celsius. (minor detail)

The summary question is worth up to 2 points. Partial credit is awarded for having some but not all correct answers.

Study Tips for Reading

- Practice reading passages of academic English regularly (the Internet can be a great source of practice materials).
- Become a master of vocabulary and constructions:
 - ⇒ Make it your goal to understand all the words you come across when studying.

- ⇒ Keep a vocabulary notebook listing new terms and their definitions. Write out the definitions in English. Only refer to bilingual dictionaries if you cannot understand a word used in context or its definition from an English-only dictionary. Set aside a period of time every week to review your new vocabulary. Practice it by writing out your own sentences using the words.
 - ⇒ Master any and all grammatical and rhetorical constructions you encounter. Discover their meanings and uses by asking a teacher or doing an Internet search and viewing multiple examples of their use. You can keep a notebook of constructions as well.
- Learn how to take notes. You are permitted to take notes during the reading section of the TOEFL®. Note-taking is not writing down every word of the reading. A good idea is to note the main idea and then note the information that supports it. Note-taking must be learned, and it takes time. The better your note-taking skills, the easier you should find the TOEFL® reading section, as well as other sections of the TOEFL® iBT.
 - Do not use a pencil or your finger when you are reading. Your eyes move faster than your finger, so you slow yourself down if you trace lines with a pencil or finger while reading.

Test Management

- Questions cannot be viewed until after the passage has been read.
- You will be allowed to study the reading as you answer the questions.
- Use the Review icon at the top of the screen to return to previous questions.
- There is a glossary available. Simply select the particular word with the cursor to find its meaning.
- When reading passages, ask yourself the following questions:
 - ⇒ What is the main idea of the passage?
 - ⇒ How is the main idea developed-supported in the passage?
- For each paragraph or new point in the passage, ask yourself why the author mentions it and how it relates to the main idea.
- Keep in mind that you have 60 to 100 minutes to read the passages and answer all of the questions in the reading section. This means that you can spend roughly 20 minutes on each set. Try to pace yourself accordingly. For each set, first answer the questions that you can answer easily. Then go back and answer more difficult questions. If you find that you have exceeded 20 minutes for a particular section, it is best to guess an answer and move on to the next section rather than remain on a particularly difficult question for several minutes

Preview Test

Directions

You will read one passage and then answer reading comprehension questions about it. Most questions are worth one point, but the last question is worth more than one point. The directions indicate how many points you may receive.

You will have 20 minutes to read the passage and answer the questions.

You may see a word or phrase in the passage that is underlined in blue. Definitions or explanations for these words or phrases are provided at the end of the passage.

You can skip questions and return to them later as long as there is time remaining.

When you are ready, press **Continue**.

Anthropomorphism

In literature, authors often use different techniques to express a certain idea to the reader. One technique that is commonly used by authors is called anthropomorphism. Anthropomorphism is the use of animals who display certain human characteristics. Another type of anthropomorphism uses non-human objects that are portrayed as humans. For example, an animal in a story may be able to speak and may wear human clothing. Similarly, an object or machine such as a train can be described as having human features like eyes or ears. Anthropomorphism is used widely in different kinds of literature to achieve different effects.

One has to look no farther than a children's book or story to find examples of anthropomorphism. Numerous fairy tales and bedtime stories involve animals that can talk. Authors use the technique because it helps children relate to the characters. By making the characters similar to humans in some ways, the author can help the child imagine the character becoming involved in human-like situations. This is important when the themes of the story may be hard for children to understand. In one tale, *The Tortoise and the Hare*, both of the main characters are animals. ■ A) The story is about a hare that ridicules the tortoise for being slow. ■ B) Since it appears to be a race easily won, the hare decides to take a nap before finishing. ■ C) When he wakes up, he realizes the tortoise has slowly reached the finish line and won the race. ■ D) The moral of the story is that it is important to take one's time when trying to achieve something. Though the morals may be a mature theme, the use of animals makes it easier for children to understand.

The technique is also used in literature for adults. Authors of books for adults use it to achieve many effects. It can be used to mock a government or politicians without directly identifying a real person. A famous example of this is George Orwell's satire, *Animal Farm*. In the book, Orwell presents many political figures as farm animals. His use of animals as characters helps him liken them to animals in their behavior and attitudes. For instance, Orwell portrays the leader of the revolution as a pig named Napoleon. In doing so, Orwell compares Napoleon to a pig. Thus, leaders like Napoleon are cast in a negative light.

► **moral**

a lesson learned from a story

► **mock**

to make fun of someone or something

► **satire**

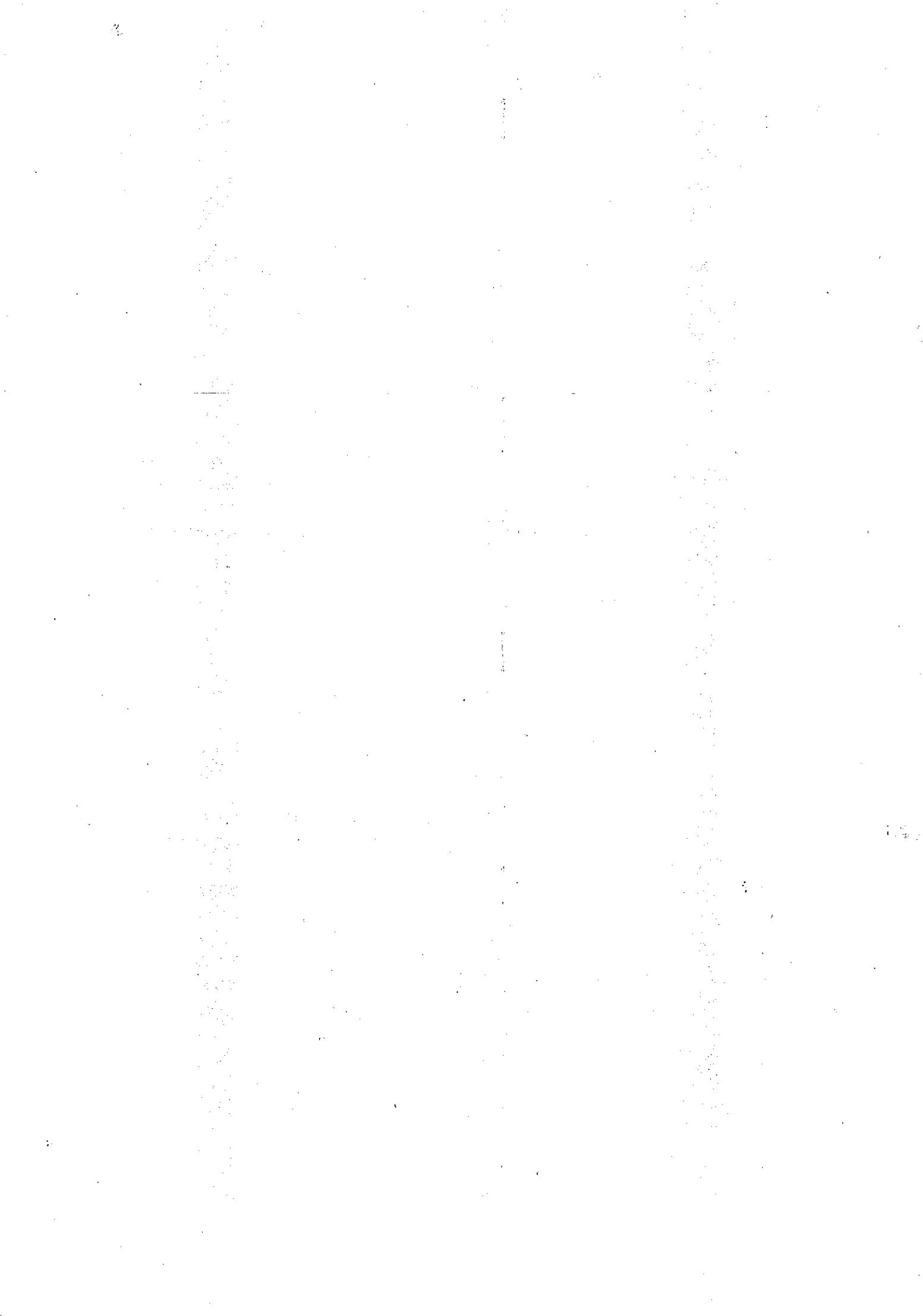
a type of literature that pokes fun of something or somebody

1. According to paragraph 1, which of the following is true about anthropomorphism?
- It relies upon the use of humans that act like animals.
 - It depicts humans as having animal-like features.
 - It can be used in the portrayal of animals or objects.
 - It involves how authors describe human clothing.
2. The author discusses trains in paragraph 1 in order to
- explain that anthropomorphism can be used in various ways
 - suggest machines are common subjects for anthropomorphism
 - suggest that giving objects human qualities confuses readers
 - explain the various ways that machines are used in literature
3. The word numerous in paragraph 2 is closest in meaning to
- simple
 - old
 - frequent
 - many
4. Which of the following best expresses the essential information in the highlighted sentence? *Incorrect answer choices change the meaning in important ways or leave out essential information.*
- Children are unable to understand human-like situations unless animals are involved.
 - It is easier for a child to understand a story when animals are likened to humans.
 - After children imagine animals in human situations, they can make their own characters.
 - Authors help children be more imaginative about human situations by using animals.
5. Look at the four squares [■] that indicate where the following sentence can be added to the passage.
- The tortoise then challenges the hare to a race.**
- Where would the sentence best fit?
- First square
 - Second square
 - Third square
 - Fourth square
6. The word reached in the passage is closest in meaning to
- touched
 - arrived at
 - taken
 - gone toward

7. Which of the following can be inferred about morals?
- (A) They can contain lessons that are not appropriate for children.
 - (B) They teach children how they should behave in public.
 - (C) They are often difficult for children to understand.
 - (D) Children enjoy stories more when they contain morals.
8. According to the passage, which of the following is NOT true about the use of anthropomorphism in children's literature?
- (A) It helps children understand a story's themes.
 - (B) Children can imagine animals in human situations.
 - (C) It is used to make fun of animals or people.
 - (D) It's used to help children better relate to characters.
9. The word *them* in paragraph 3 refers to
- (A) political figures
 - (B) farm animals
 - (C) characters
 - (D) attitudes
10. According to paragraph 3, why do authors use anthropomorphism in adult literature?
- (A) To inspire readers to take action in social issues
 - (B) To suggest that humans and animals are alike
 - (C) To mock individuals or situations indirectly
 - (D) To pressure governments to make changes
11. The word *cast* in the passage is closest in meaning to
- (A) placed
 - (B) listed
 - (C) honored
 - (D) saved
12. Directions: Complete the table by matching the phrases below. Select the appropriate phrases regarding the uses of anthropomorphism and match them to the type of literature to which they relate. TWO of the answer choices will NOT be used.
- This question is worth 3 points.**
- | Type of Literature | Statements |
|-----------------------|-------------|
| Children's Literature | •
•
• |
| Literature for Adults | •
• |

Answer Choices

- (A) helps the reader understand mature messages
- (B) can allow the reader to relate to the characters
- (C) often presents a moral to the reader
- (D) can provide the reader information about types of animals
- (E) can refer to people without mentioning them by name
- (F) can be used to compare people to animals in negative ways
- (G) used by politicians and governments



Chapter 1

Fact Questions

Necessary Skills

- Identifying important information and facts stated in a passage
- Locating a specific piece of information in a passage quickly
- Understanding the distinction between main ideas and supporting details
- Focusing on facts, details, definitions, or other information presented in a passage

Example Questions

- According to the passage, who/when/where/what/how/why _____?
- According to paragraph X, which of the following is true of _____?
- The author's description of _____ mentions which of the following?
- According to paragraph X, _____ occurred because _____
- According to the passage, why did X do Y?

Strategies

- Look for transitional expressions to locate details such as examples, steps, time, reasons, or results.
- Pay attention to examples and descriptions that provide information and details.
- Eliminate choices presenting information that contradicts what is provided in the passage.
- Answer the specific question being asked. Do not select an answer just because it is mentioned in the passage.

01 Biology

Read the following passage. Then fill in the diagram with the information that you read.

Track 2

Invasive Species

Invasive species are plants or animals that come into an area and threaten to kill or drive out the local species.

The first characteristic of an invasive species is that it does not naturally occur in the area. In other words, it is not part of a normal ecosystem but invaders from an outside area. In many cases, the invasive species is brought in by humans. The Russian olive tree, for instance, now threatens the forests of North America. People using it for landscaping brought the species to the continent from Europe. After it was introduced, the Russian olive, well-suited to its new environment, overwhelmed nearby natural environments.

Invasive species are also defined by the way they upset an ecosystem. When particular species are put into an area, they invade the habitats of, and even kill, native species. Asian clams, for instance, were introduced to the coast of the Americas. In these areas, they have no natural predators. They also reproduce quickly. As a result, Asian clams are threatening to overtake many coastal areas. They do so by taking over the space and using the nutrients that local species would normally use. Clams consume plankton for nutrients—the same foods that many smaller fish eat. Thus, lacking nutrients, many fish species have died in areas invaded by the clams.

species:

a group of plants or animals that are similar to one another

ecosystem:

all of the plants and animals in an area

continent:

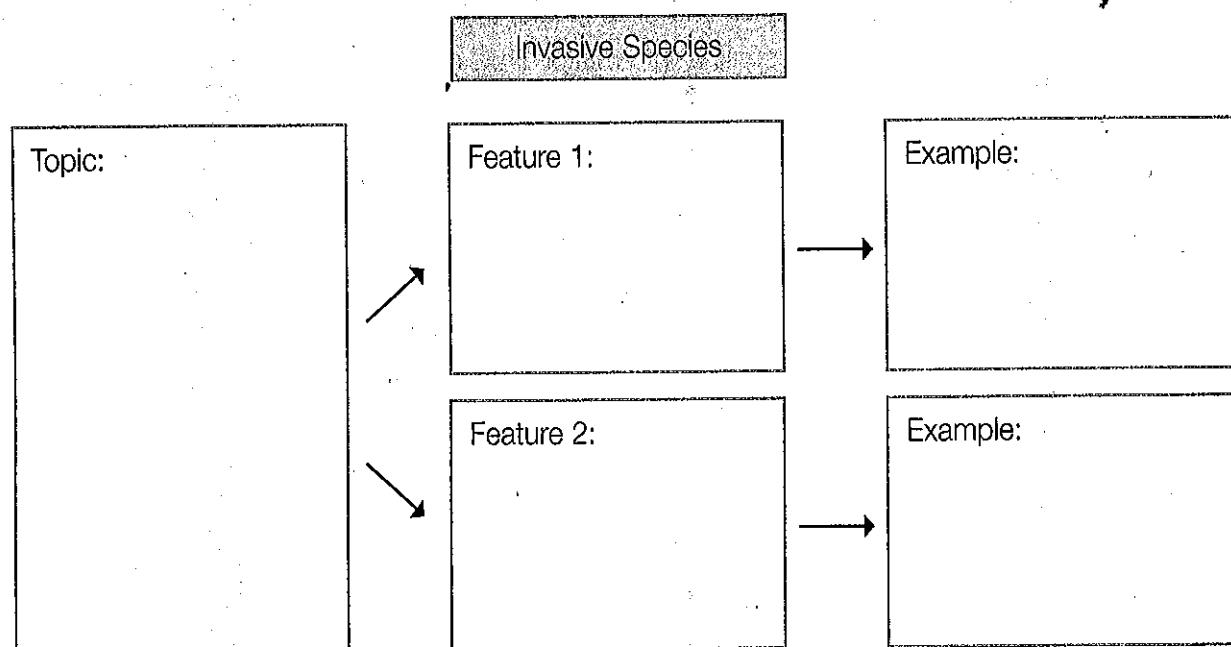
a large, continuous piece of land

native:

existing naturally in an environment

nutrient:

a substance that acts as food for an animal or plant



1. How does an invasive species differ from a native species, according to paragraph 2?

 - (A) It is more suited to live in an environment than native species.
 - (B) It requires a different set of nutrients than the native species.
 - (C) It is introduced from outside of the normal environment.
 - (D) It does not contribute to the health of the ecosystem.
2. According to paragraph 2, how did the Russian olive species first appear in North America?

 - (A) Its seeds were mistakenly planted by explorers.
 - (B) It was used to landscape areas by humans.
 - (C) It was brought from America to Europe by humans.
 - (D) It evolved from native species in North America.
3. How do invasive species threaten local species, according to paragraph 3?

 - (A) They reproduce more quickly than predators in an area.
 - (B) They crowd out the natural predators in an area.
 - (C) They feed upon a specific native species and use them for nutrients.
 - (D) They take space and nutrients from local species.

Fill in the blanks to complete the summary.

Plants and animals transported from a different _____ often threaten local environments. They are considered an invasive _____ because they upset the normal ecosystem. Some may reproduce fast, thus invading the space of the _____ species. When this happens, local species are deprived of _____ needed to survive. Russian olive trees and Asian clams are examples of invasive species.

02 Archeology

Read the following passage. Then fill in the diagram with the information that you read.

Track 3

Humans in North America

Scientists have long debated the way that humans first colonized the Americas. It is widely believed that humans crossed the Pacific Ocean from Asia.

Scientists support this theory with anthropological evidence. To find similarities between the two cultures, scientists have studied teeth. Because teeth remain for a very long time, they provide accurate records of the past. Researchers have found that the structure of Native Americans' teeth is more similar to those of Asians than any other culture in the world. One study of over 15,000 cranial remains found that the teeth of Native Americans and Asians fell into a group of similar tooth patterns called sinodonty.

In addition, scientists have found archaeological evidence to support the theory. This evidence comes in the form of human remains found in a cave in Southeast Alaska. After researchers analyzed the remains, they found that he mainly survived on a diet of marine life such as fish. Fish, however, was not a diet that would have been readily available in that location. During that period of history, many coastal Asian cultures had diets of mainly marine life. Thus, the man only would have had access to fish if he had come from Asia.

colonize:

to take control of an area of land and settle on it

record:

information about the past; to set down in writing

structure:

the way that something is arranged

cranial:

relating to the skull

remains:

the body of a person or animal that has died

Humans in North America

Theory:

Support 1:

Support 2:

1. Why do teeth provide accurate information about past cultures?
 - (A) They retain DNA evidence after a person has died.
 - (B) They remain long after a body has decayed.
 - (C) They show traits unique to different individuals.
 - (D) They can be used to determine a person's diet.

2. According to paragraph 2, sinodonty is
 - (A) a group of cultures with similar teeth
 - (B) the study of cranial and dental remains
 - (C) a category used to describe dental remains
 - (D) a method of analyzing the remains of teeth

3. What have scientists learned from the remains of a human found in Southeast Alaska?
 - (A) He survived on marine life found nearby.
 - (B) He died from a lack of food.
 - (C) He could not properly digest fish.
 - (D) He ate a diet common to Asia.

Fill in the blanks to complete the summary.

Scientists studied the way humans first came to _____ the Americas. Based on human _____ found in caves, they believe people came from Asia. Scientists were able to study the _____ of the teeth they found. They were able to _____ their findings and compare them with Native Americans. Scientists found many similarities in the tooth patterns between Native Americans and Asians.

03 Botany

Read the following passage. Then fill in the diagram with the information that you read.

Track 4

Companion Planting

Companion planting is a technique that uses the relationships between plants to allow plants to grow more easily.

The physical interaction of plants is the most apparent benefit of companion planting. The physical traits of each plant complement one another and lead to healthier plants. In nurse cropping, one plant is planted next to another to keep weeds out. Oats, for instance, are often planted along with hay. The oats crowd out weeds that would normally steal the nutrients that the hay needs to survive. However, the oats do not take nutrients and can be harvested along with the hay. In this case, the physical relationship between the hay and the oats results in a strong crop yield with fewer weeds.

The other type of relationship used in companion planting is chemical interaction. In this case, the chemical traits of one plant can be used to benefit other plants in the area. For example, legumes—plants such as beans and peas—can take nitrogen out of the air and put it into the soil for their benefit. This process helps other plants, too. Other plants can use the nitrogen brought into the soil by the legumes. In another case of chemical interaction, the African marigold can be planted in gardens. The marigold releases a chemical into the air that keeps pests away and serves to protect other plants in the area.

complement:
to add to something in a way that improves it

weed:
a type of plant that is unwanted in an area

yield:
the amount of something gained after it is made or grown

interaction:
a way in which two objects relate to one another

pest:
a destructive insect or animal that attacks crops or food

Companion Planting

Topic:

Type 1:

Type 2:

Example:

Example:

1. Physical relationships between plants are used in companion planting to
 - (A) reduce the amount of time needed for harvesting
 - (B) transfer nutrients from the soil directly to the roots
 - (C) use the chemicals released by one plant to keep pests away
 - (D) use the physical traits of plants to benefit others in an area
2. According to paragraph 3, what is a benefit of companion planting?
 - (A) Replacing the nutrients in the soil
 - (B) Keeping weeds away from plants
 - (C) Allowing nearby plants to receive nutrients
 - (D) Preventing plants from releasing chemicals
3. Which of the following plants could be used to keep away unwanted insects?
 - (A) Oats
 - (B) Hay
 - (C) Beans
 - (D) Marigolds

Fill in the blanks to complete the summary.

There are a number of benefits of companion planting which _____ healthier crops. When planted side by side, the traits of each plant _____ each other. The physical and chemical _____ between plants can prevent weeds or provide nutrients in the soil. The chemical traits of some plants keep _____ away from other plants. The chemical interaction of the marigold is an example of companion planting.

04 Fine Arts

Read the following passage. Then fill in the diagram with the information that you read.

Track 5

Ansel Adams

Ansel Adams was an American photographer that lived from 1902 until 1984. He is best known for his many photographs of the American West. Some of his many contributions to landscape photography become apparent through an examination of the two major stages of his career.

Adams's early career was defined by pictorialism—an effort to make photographs look more pleasing by changing their appearances. Adams was inspired by the Impressionist movement in painting. Such painters attempted to use extremely vivid colors that often mixed together in unexpected ways. This created a somewhat blurry appearance. Adams strove for similar effects. Though photography was limited to black and white, photographs were often altered after development to make them appear more artistic. One such technique, soft focus, alters the focus of the camera to make the subject of the photograph appear slightly blurred. This achieved an effect similar to Impressionist painting. During this period, he created a photograph titled "Monolith." A photograph of a rock formation in the Sierra Nevada mountains of California, "Monolith" used a red lens filter that made the sky appear black.

During Adams's later career, he abandoned many of his pictorialist leanings when he joined a group of photographers called Group f/64. This group encouraged "pure" photography. Rather than struggling to imitate other art forms, they wanted photography to be presented without any alteration. In addition, they stressed that photography should have no technique. It should, thus, be simply a way to capture and represent a moment in time. Adams's photography during this period is also his most famous. Perhaps his most famous photograph is of the moon rising above a small village in New Mexico. This photograph, rather than attempting to make the scene more beautiful through artistic alterations, simply captures the natural beauty of the moment.

vivid:

very clear and bright

blurry:

not clear; difficult to see clearly

strive:

to try hard to do something

alter:

to change

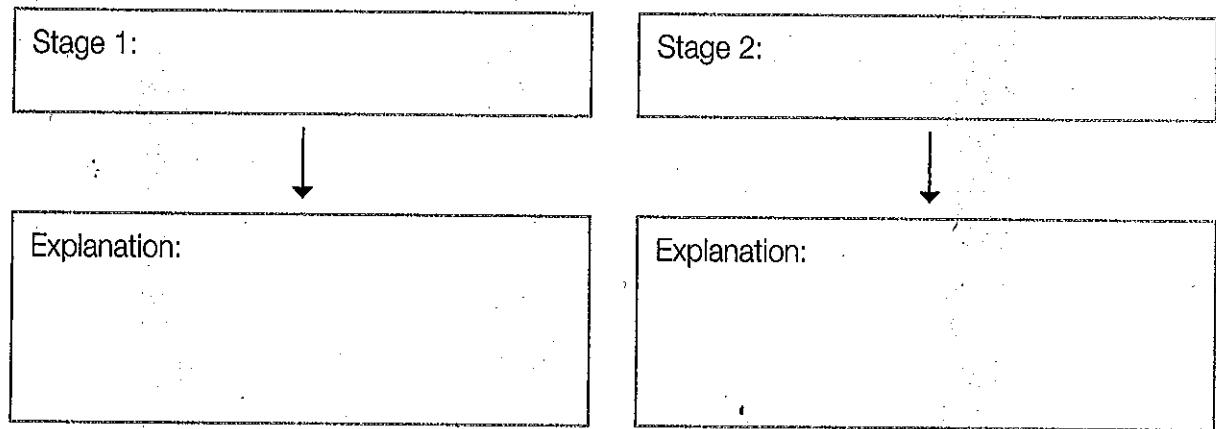
development:

the process of treating film with chemicals to create a photograph

leaning:

a tendency to do or like something

The Photography of Ansel Adams



1. According to paragraph 2, which of the following is a quality of Impressionism?
 - (A) Altering artwork after it is finished
 - (B) Mixing colors in unusual ways
 - (C) Limiting color use to black and white
 - (D) Changing the colors of objects in nature

2. Why did pictorialist photographers use various lenses to alter their work?
 - (A) To make photographs appear realistic
 - (B) To blur the photograph's background
 - (C) To change the color of a photograph
 - (D) To make photograph development easier

3. How did Group f/64 affect Ansel Adams's photography style?
 - (A) It taught him to leave his photographs unchanged.
 - (B) It encouraged him to photograph landscapes.
 - (C) It provided him with new developing techniques.
 - (D) It demonstrated the importance of artistic filters.

Fill in the blanks to complete the summary.

In his early career, Ansel Adams would _____ his photographs for more appeal.

His inspiration came from Impressionist artists who used _____ colors in their paintings. In later years, he abandoned his _____ toward imitating other art forms. He joined a group that _____ to present pure, unaltered photography. His photography during this time is considered to be his best work.

05 Environmental Science

Read the following passage. Then fill in the diagram with the information that you read.

Track 6

Urban Heat Islands

Urban heat islands are city zones that are significantly hotter than the area surrounding them. This is the result of many factors that cause the city to retain heat that would otherwise be lost. In many cases, urban heat islands—or UHIs for short—are several degrees warmer than nearby, non-city areas.

The most common cause of UHIs is the fact that the ground area has been paved over in cities. By and large, pavement soaks up far more heat than dirt on the ground or organic matter. As a result, the cities cool down far less than other areas during the night. During the same nighttime period, most natural, unpaved regions lose most of the heat that they have absorbed during the day; paved areas do not. Because of this, areas containing significant pavement are often warmer at night by three to four degrees Celsius.

In addition, the low number of plants in cities contributes to UHIs. Through a process called evapotranspiration, plants release water into the air when they are heated. This moisture is often much cooler than the surrounding air temperature. The moist air, in turn, causes the nearby area to become cooler. Since most of the ground in cities is paved or built over, there is little room for plants to grow. As a result, the natural cooling effect of plants is not as present in cities as it is in other areas. The heat of the area cannot benefit from the cooling effects of many plants.

Finally, UHIs are caused by the heat released by human activity within the city. The operation of cars and day-to-day urban activities in a city create a large amount of heat. This excess heat is called “waste heat” and may be more of a factor in UHIs than scientists first thought. In fact, many cities remain warm even on cloudy days due to waste heat being released. Thus, due to the high concentration of cars and people, heat is constantly generated.

retain:
to keep something

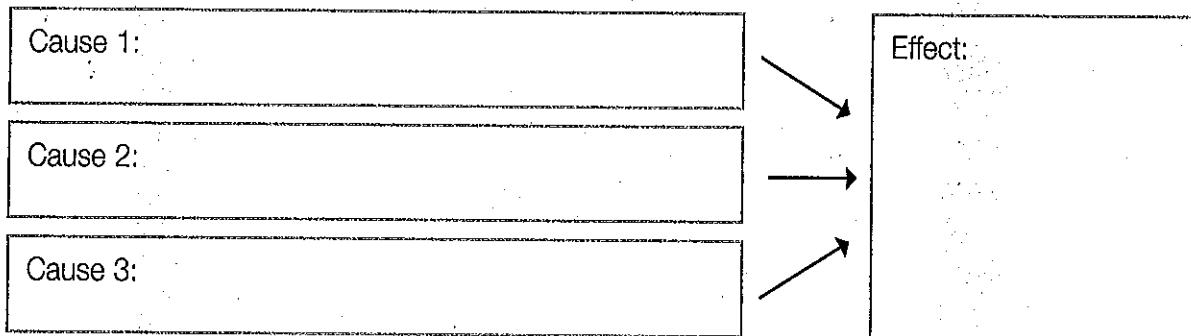
urban:
relating to a city or town

pave:
to cover an area with
pavement, as in a road

absorb:
to take in or soak up
something

activity:
busy action or movement

Urban Heat Islands



1. How does pavement affect the heat present in a city?
 - (A) It continues to generate heat at night.
 - (B) Paved areas absorb and retain heat.
 - (C) It stops the transfer of heat from the air to the ground.
 - (D) It reflects the heat generated by sunlight.
2. Why do plants cause the area around them to be cooler?
 - (A) They absorb heat before it reaches the ground.
 - (B) They remove moisture from the air.
 - (C) They release oxygen to stop heat transfer.
 - (D) They release moisture into the air.
3. According to paragraph 4, waste heat is
 - (A) heat created by action within cities
 - (B) heat that is lost in the atmosphere
 - (C) the transfer of heat into the soil
 - (D) heat trapped by heavy cloud cover

Fill in the blanks to complete the summary.

_____ heat islands are city areas that are warmer than surrounding areas. Several factors cause the city to _____ heat that would otherwise be lost. The paved streets _____ and hold heat which results in warmer nights. The operation of cars and daily human _____ create excessive heat in cities. Unfortunately, the natural cooling effect of plants is not present in cities.

06 Fine Arts

Read the following passage. Then fill in the diagram with the information that you read.

Track 7

Art Nouveau

Art Nouveau was an artistic trend that began near the turn of the 20th century. The style was distinct from the styles before it, especially the “academic” art that had been popular in the 19th century. Both the approach and style of Art Nouveau established it as a unique movement that is still celebrated today.

Art Nouveau began with very non-traditional approaches. It split from the fine art of the 19th century that focused heavily on accurate portrayals of reality. It did not seek to create art that exactly represented reality. Rather, Art Nouveau sought to add to reality and make normal, everyday things beautiful with decoration. In this way, Art Nouveau was more functional than the art before it. Moreover, it did not focus only on classical types of fine art, such as statue and painting, but was a “total style”; that is, it applied artistic ideas to nearly everything. While some Art Nouveau artists did create images, one could just as easily produce tea cups, jewelry, or architecture in the style of decorative art. Alphonse Mucha, one of the most famous figures of Art Nouveau, became popular by producing posters that advertised stage productions. In Prague, Brussels, and several other places across Europe, the Art Nouveau style swept the city. It could be seen in buildings, train stations, and parks. In this way, Art Nouveau’s approach was much different than art before it; rather than making “pure” art for museums, Art Nouveau was beautiful and served a purpose.

The style of Art Nouveau was a huge departure from the art before it. Once again, accurate depictions of reality were abandoned in favor of a decorative style. Most Art Nouveau images are two-dimensional. They cast aside rules of perspective that were so present in 19th century art. In addition, large amounts of decoration are added to a picture. In many of the poster images prepared by Mucha, for instance, several vine-like, curved lines frame his pieces. Over the entrances to the metro in Paris, ornate panes of glass expand outward from the entrance. In both cases, the decoration has no function other than adding a sense of beauty to what is otherwise very plain.

movement:
a drastic change in an art form

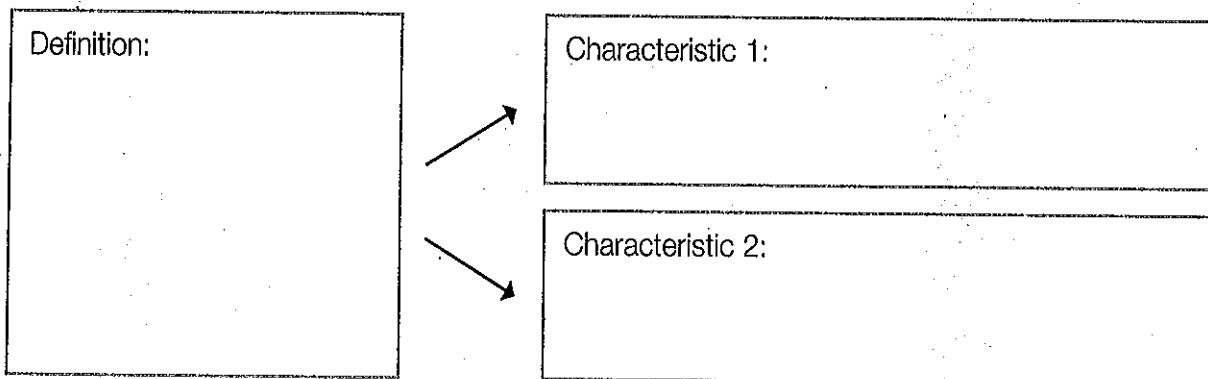
functional:
designed to be useful

departure:
a movement away from something

perspective:
a way to create art that gives the impression of distance or depth; a mental view or outlook

ornate:
decorated with complex shapes or patterns

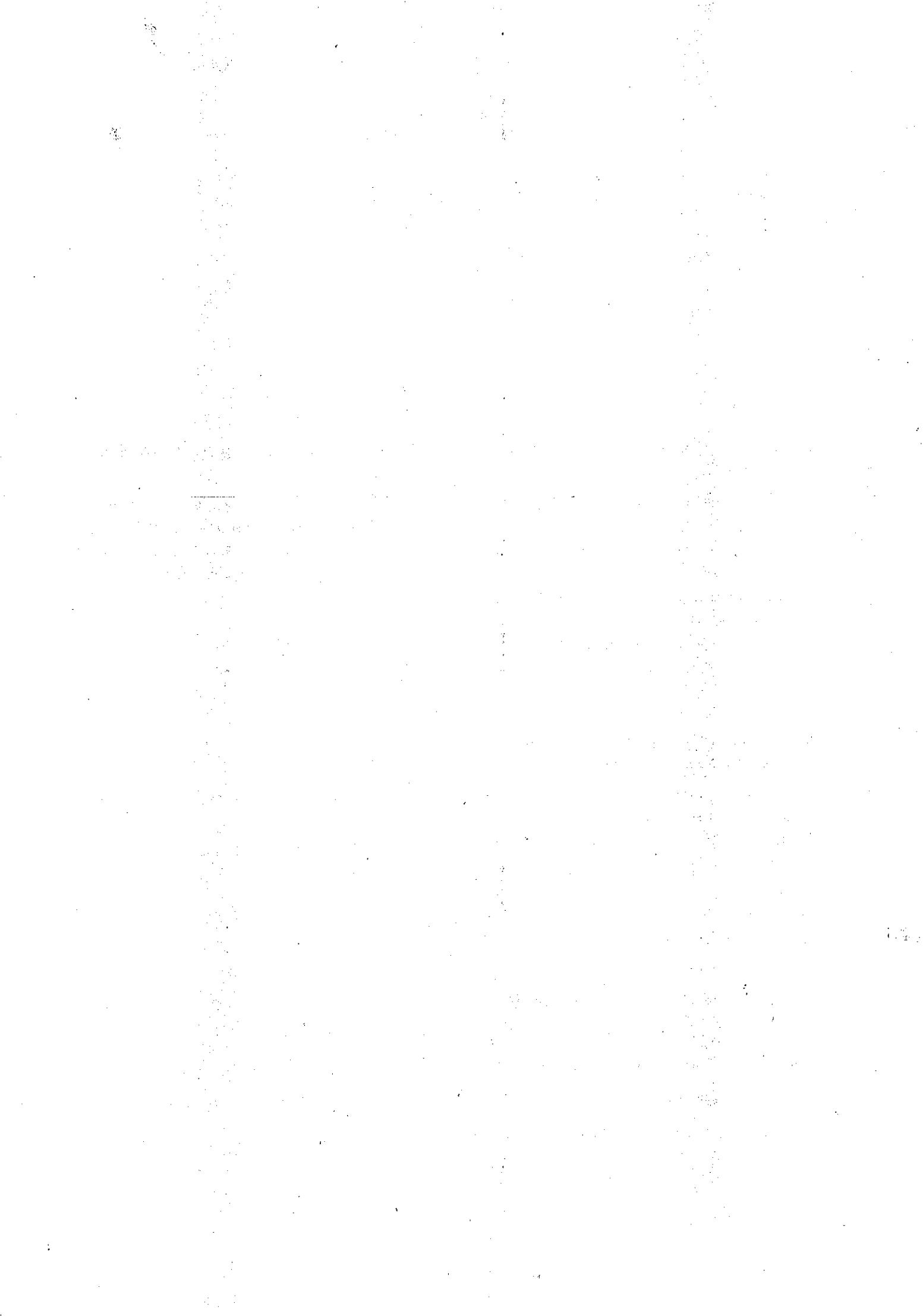
Art Nouveau



1. How did Art Nouveau differ from the art before it?
 - (A) It attempted to make painting and sculpture more popular.
 - (B) It made normal, everyday objects more beautiful.
 - (C) It tried to make art that appealed to everyone.
 - (D) It made formal artistic techniques available to everyone.
2. According to paragraph 2, what was Alphonse Mucha well known for?
 - (A) Architecture
 - (B) Stage productions
 - (C) Posters
 - (D) Jewelry
3. Which of the following was a trait of Art Nouveau?
 - (A) It used large amounts of decoration.
 - (B) It was focused mostly on architecture.
 - (C) It paid special attention to perspective.
 - (D) It depicted subjects in unrealistic ways.

Fill in the blanks to complete the summary.

Art Nouveau was an art form that was a _____ from traditional art. It added a new _____ to the traditional art of the past. Art Nouveau was more _____ because it made everyday things more decorative. Traditional European window panes and doorways were more _____ and more beautiful. Even today, the unique style of Art Nouveau is widespread throughout the world.



Chapter 2

Negative Fact Questions

Necessary Skills

- Recognizing incorrect information as well as information not mentioned in the passage
- Identifying paraphrases that do or do not correctly summarize information from the passage
- Verifying that three answer choices are true and one is false

Example Questions

- All of the following are mentioned in paragraph X as _____ EXCEPT:
- According to the passage, which of the following is NOT _____?
- The author's description of _____ mentions all of the following EXCEPT:

Strategies

- Be aware that often, the three incorrect answer choices are spread across a paragraph or several paragraphs.
- Keep in mind that the correct answer either directly contradicts one or more statements in the passage or it is not mentioned in the passage at all.
- Check your answer to make sure that you understood the question accurately.

01 Fine Arts

Read the following passage. Then fill in the diagram with the information that you read.

Track 8

The Meisner Technique

The Meisner Acting Technique was created by Sanford Meisner in the mid 1900s. It does not focus on reading scripts. Instead, the Meisner Technique teaches students how to spontaneously act according to a situation. The technique is now taught in several acting schools and has been used to train several Hollywood stars.

The Meisner Technique begins by focusing on acting without planning. The actors are given a prompt and must move around as if they were in that setting. An actor might be told to act as if he were exploring the jungle. The actor then must move on stage without a script, wiping away sweat, swatting at bugs, etc. In this way, the Meisner Technique teaches actors to place themselves into the roles they are playing and move in a realistic way.

Next, the Meisner Technique teaches emotional speech. Actors are given a prompt and must interact and talk, while showing emotions that they would show in a "real life" situation. Since actors do not have a script to refer to, they have to imagine themselves in a similar emotional setting. For example, an actor would need to first analyze a situation and then react in a way that he or she normally would. Thus, the actor's lines are both more realistic and more emotional.

script:
the written words of a play or movie

spontaneously:
without planning

prompt:
a word or phrase setting out a course of action

swat:
to hit something with your hand, especially an insect

setting:
a location or situation where action takes place

The Meisner Technique

Definition:

Way 1:



Way 2:

1. All of the following are elements of the Meisner Technique EXCEPT:

 - (A) Spontaneous acting
 - (B) Acting without a script
 - (C) Moving without planning
 - (D) Exaggerating emotions
2. According to the passage, all of the following are goals of the Meisner Technique EXCEPT:

 - (A) Attempting to become a character
 - (B) Learning to move in a realistic way
 - (C) Understanding how to read a script
 - (D) Using emotional speech to interact
3. All of the following are true of the Meisner Technique EXCEPT:

 - (A) Actors create their own lines.
 - (B) Actors are often given a prompt.
 - (C) Actors begin by evaluating the situation.
 - (D) Actors study the performances of other actors.

Fill in the blanks to complete the summary.

The Meisner Technique is a form used to teach students to act _____. Students are given a _____ or situation to perform without a script. Students are taught to visualize and imagine themselves in a certain _____. An example would be a picnic scene where they might _____ a fly. Using the Meisner Technique would make the scene more realistic and believable.

02 Environmental Science

Read the following passage. Then fill in the diagram with the information that you read.

Track 9

Shifting Jet Streams

Jet streams are strong winds that blow at high altitudes and are responsible for weather patterns around the world. New research suggests that jet streams are moving toward the poles, which will have dramatic effects on the Earth's weather.

The first effect of the jet streams' shift toward the poles will be a heightening of the severity of storms. Hurricanes, for instance, are often kept from forming by the high winds of the jet streams. A large amount of moisture in a small area is necessary for a hurricane to form. By constantly moving air, jet streams frequently thwart the formation of hurricanes. As jet streams move away from the equator, where hurricanes most often form, it is likely that hurricanes will become more frequent and more severe.

The shift in jet streams will also cause many areas near the equator to become drier. Jet streams carry water that evaporates off of the ocean onto land. This moisture then forms into clouds and falls onto the land in the form of precipitation. Since jet streams are moving away from regions along the equator, it is thought that these areas will receive less moisture. As some are already rather dry, this could cause severe droughts for many areas.

altitude:

how high something is above sea level; height

poles:

the northernmost and southernmost points on the Earth

heightening:

Increasing

thwart:

To prevent something from occurring

evaporate:

To turn a liquid into a gas

Shifting Jet Streams

Cause:

Effect 1:

Effect 2:

1. All of the following are results of the shift of jet streams EXCEPT:
 - (A) A longer tropical rainy season
 - (B) More frequent hurricanes
 - (C) Drier weather near the equator
 - (D) More severe hurricanes
2. According to the passage, all of the following are true of jet streams EXCEPT:
 - (A) They exist at high altitudes.
 - (B) They prevent many storms from forming.
 - (C) They keep mountainous regions drier.
 - (D) They move moisture toward land masses.
3. According to the passage, all of the following are true of jet streams EXCEPT:
 - (A) The presence of jet streams increases the severity of storms.
 - (B) Jet streams encourage precipitation on land.
 - (C) The presence of jet streams changes storm patterns.
 - (D) Jet streams appear to be moving away from the equator.

Fill in the blanks to complete the summary.

Winds blowing at a high _____ account for the world's weather patterns. These winds, called jet streams, are shifting, and their absence is _____ the severity of storms. Jet streams are important because they _____ the formation of hurricanes. Also, they carry water that _____ over the ocean and falls onto areas of dry land. If the jet streams shift, these areas could experience severe droughts. The shift of jet streams to the poles will be very harmful.

03 Biology

Read the following passage. Then fill in the diagram with the information that you read. (Track 10)

The Flu Virus

The flu virus, influenza, kills up to 500,000 people worldwide each year. In many cases, scientists create vaccines to protect against the virus, but the vaccines are not always effective. New research on the virus has led some to believe that the virus is evolving in the tropics and spreading outward from a single point.

In support of this idea, scientists studied different competing versions of the flu virus that affect people. There are two known versions of the flu virus that affect humans, H1N1 and H3N2. In years where H1N1 is common, H3N2 is rare, and vice-versa. In non-tropical regions, there are flu "seasons": periods where several people are affected by the virus, which then dies off. In tropical regions, the flu has no season: it is constantly present. As a result, researchers believe that the two strains compete with each other in tropical regions. The successful strain moves outward to affect the rest of the world.

Researchers also studied the way strains of the virus spread across the globe. New strains of the virus appear in warm regions along the equator and move outward. This further suggests that the virus is evolving in a single area and moving out into other regions. After one strain becomes strong enough to affect several people in the tropics, it moves outward by infecting travelers and, in some cases, migrating birds. Scientists are hopeful that the region where each strain of the flu evolves can be pinpointed. That way, new vaccines can be created before the virus spreads.

vaccine:

a substance used to provide protection from a disease

evolve:

to develop over time into a different form

outward:

away from a certain place

compete:

to try to be better than something else

pinpoint:

to find a precise location

The Flu Virus

Theory:

Support 1:

Support 2:

1. According to the passage, all of the following are true of the flu virus EXCEPT:
 - (A) It does not affect people that have been vaccinated.
 - (B) It likely spreads outward from a single point.
 - (C) It can kill 500,000 people in a single year.
 - (D) It exists in two versions that affect humans.
2. All of the following statement about flu strains are true EXCEPT:
 - (A) The two strains of the flu virus compete with each another.
 - (B) H1N1 and H3N2 are the two versions of the flu that affect humans.
 - (C) The area in which the two strains compete is likely small.
 - (D) Both strains of flu emerge at the same time and spread outward.
3. According to paragraph 3, all of the following contribute to the spread of the flu EXCEPT:
 - (A) Infected travelers
 - (B) Bird migrations
 - (C) Ineffective vaccines
 - (D) Warm regions

Fill in the blanks to complete the summary.

Scientists are constantly searching for a new _____ that will prevent influenza.

They have not been able to _____ the origin of the virus. They believe that there are two strains that _____ against each other. The strongest virus is spreading _____ and affecting people throughout the world. It can be transmitted to outer regions by travelers and possibly birds.

04 History

Read the following passage. Then fill in the diagram with the information that you read.

Track 11

The Industrial Revolution

The Industrial Revolution was a period of intense and dramatic change. As technology reached a more advanced level, several countries in the 19th century began constructing factories. Although factories were able to produce finished goods at a very high rate, they needed hundreds of workers to function. As a result, the Industrial Revolution led to a number of social changes.

The most noticeable change brought on by the Industrial Revolution was the shift in population. Prior to factories being built, there was very little work in cities for members of the lower class. Most people lived in the country, where they farmed small pieces of land. Over three-fourths of Britain's population lived this way before the Industrial Revolution. The construction of factories, however, created a large demand for workers in the cities. Thus, many people flocked to the city in hopes of making more money. In this way, the Industrial Revolution is responsible for modern cities becoming huge population centers.

The Industrial Revolution also changed attitudes toward women. In the past, women were rarely allowed to work on farms; instead, they stayed at home and tended to the family. Labor in factories, however, was viewed differently. Women were allowed to work in factories. In fact, women were actually favored in some cases because they would often work for lower wages. This change in women's roles was a key part in helping women gain more rights, such as the right to vote. The Industrial Revolution is thus seen as playing a profound role in the evolution of women's rights.

finished goods:

Items that have been crafted into useable products from raw materials

flock:

to move in a large group

favored:

liked or wanted more than another thing

profound:

very great

The Industrial Revolution

Cause:

Effect 1:

Effect 2:

1. Which of the following is NOT true about the effects of the Industrial Revolution on population?
 - (A) Cities grew larger.
 - (B) Lower classes worked in factories.
 - (C) Many people moved to rural areas.
 - (D) Factories increased available jobs.

2. All of the following are true of the Industrial Revolution's impact on women EXCEPT:
 - (A) It led some factory owners to prefer women because they could be paid less.
 - (B) It resulted in women receiving lower wages than they did in the country.
 - (C) It is seen as a stepping stone for women gaining other rights.
 - (D) It changed people's feelings on allowing women to work outside of the home.

Fill in the blanks to complete the summary.

The Industrial Revolution had a _____ effect on several 19th century countries.

Subsequently, people who had been farmers now could work in a _____. As more factories were built, people _____ to cities looking for work. Women worked for lower wages; therefore, they were more _____ than men. The Industrial Revolution is responsible for the growth of major cities today.

05 Psychology

Read the following passage. Then fill in the diagram with the information that you read.

Track 12

Tabula Rasa Theory

The tabula rasa theory dates back to Ancient Greek thought. The theory argues that humans are born with a “blank slate” (*tabula rasa* is Latin for blank slate). In other words, humans have no knowledge when they are born. They are not inclined to behave in any particular way. Instead, their upbringing and environment determine the kind of person that they will become. However, the tabula rasa theory has been nearly disproved by modern psychology.

One of the most basic parts of a person is his or her intelligence. A person's intelligence has a huge role in how they behave and act. Most studies today suggest that a person's genetic makeup determines one's intelligence. It appears that environment and upbringing have little effect on it. By measuring the IQ of siblings, researchers can compare the role of upbringing versus genetics in intelligence. In such tests, it was found that most siblings close to each other in age have a similar IQ only when they are young. Once siblings become teenagers, their IQs no longer correlate in any way. If the Tabula Rasa Theory were true, two siblings growing up in the same home would have the same IQ. This divergence between siblings' IQ continues even after they have both become adults. In short, data on siblings' IQ disproves the tabula rasa theory.

The personalities of siblings have also been studied. The results further disprove the tabula rasa theory. Once again, siblings were studied, but this time each of them was adopted from a different family. Since the two adopted children had different parents, their genetic structure—their “nature”—was entirely different. However, their family life—the “nurture”—was the same, as they were raised in the same home. Personality tests of adopted siblings raised in the same home showed that they were almost entirely different from one another. By adulthood, they were as likely to have the same personality type as two random strangers. This further disproves the tabula rasa theory by suggesting that a person may be born with certain traits. Upbringing seems to have little or no impact on one's personality.

upbringing:
the process of a parent raising a child

IQ:
intelligence quotient: a measurement of one's intelligence

versus:
compared with

divergence:
a state of being separate or different

adopted:
made part of a new family

Tabula Rasa Theory

Theory:

Support 1:

Support 2:

1. All of the following are true of the tabula rasa theory EXCEPT:
 - (A) It argues that people are born with no natural behaviors.
 - (B) It has been supported with research in modern psychology.
 - (C) It can be dated back to the ideas of the Ancient Greeks.
 - (D) It believes that personality is shaped by upbringing and environment.

2. According to the passage, all of the following were used to disprove the tabula rasa theory EXCEPT:
 - (A) Children's upbringings
 - (B) Similar sibling intelligence
 - (C) Intelligence tests
 - (D) Personality tests

Fill in the blanks to complete the summary.

Researchers have studied the theory of intelligence based on environment _____ genetics. Earlier theories suggested that a child's intelligence was determined by their _____. A _____ occurred when siblings with similar IQs as children had different ones when they aged. Children who were _____ from different families but raised in the same homes were studied. They did not have similar IQs, indicating intellect is based on genetics.

06 Geology

Read the following passage. Then fill in the diagram with the information that you read.

Track 13

The Earth's Magnetosphere

The magnetosphere is an area of magnetic energy that surrounds some astronomical objects. Magnetospheres radiate magnetic energy outward from the body of the object. In some cases, the magnetic field is very large; the Earth's magnetic field extends several tens of thousands of kilometers into space. This magnetic energy, in turn, can affect other objects around the body. Every body's magnetosphere is different and is affected by a number of factors. In the case of the Earth's magnetosphere, two main factors affect the magnetic energy the Earth radiates.

The first factor affecting the Earth's magnetosphere is the natural magnetism of the Earth itself. Deep in the core of the Earth, molten metals carrying an electric charge move. This is a process referred to as a dynamo process. As these metals flow around inside of the Earth, they generate a magnetic field around the planet. This is the same field that causes the needle of a compass to point north. This occurs because the magnetism on Earth is based at the poles. Though this magnetism is present on the planet, it also radiates far beyond the Earth, thus forming the magnetosphere.

In addition, the Earth's magnetosphere is altered by the solar wind. The solar wind is a stream of charged particles that flow outward from the sun. As the surface of the sun moves, certain points generate higher heat than usual. This heat, in turn, charges particles high in the atmosphere of the sun. Due to the extremely high temperatures, these charged particles move out from the sun at a very fast rate of about 400 kilometers per second. These released particles form a "wind" of sorts that blows through space. Due to its speed, the solar wind can greatly affect the magnetic fields of astronomical bodies that it comes into contact with. In the case of the Earth, the sun's solar wind has a dramatic effect on the magnetosphere. On the side of the Earth that faces the sun, the magnetosphere is dramatically compacted by solar wind. Similarly, the magnetosphere of the Earth on the side opposite of the sun radiates out farther than it normally would; the solar wind blows the magnetic waves outward.

astronomical:
relating to the planets, stars, and other objects in space

magnetic energy:
energy that causes things to push or pull on other objects

radiate:
to release energy

compass:
a navigational tool that always points to the north

charged:
containing electricity

compact:
to exert force on something so it becomes smaller

The Earth's Magnetosphere

Explanation:

Support 1:

Support 2:

1. According to the passage, all of the following are true of the Earth's magnetic field EXCEPT:
 - (A) It is radiated from the poles of the planet.
 - (B) Subtle changes in the magnetic field can also affect the magnetosphere.
 - (C) It begins in the Earth's core and ends in the upper atmosphere.
 - (D) It is generated by molten metals flowing in the core of the Earth.
2. All of the following statements are true of the Earth's magnetosphere EXCEPT:
 - (A) It can be affected by small changes in the core of the Earth.
 - (B) It does not affect other astronomical bodies.
3. All of the following are true of solar wind EXCEPT:
 - (A) It is released when temperatures on the sun decrease.
 - (B) It can affect the magnetospheres it comes in contact with.
 - (C) It moves away from the sun at a very fast rate.
 - (D) It is composed of charged particles from the sun.

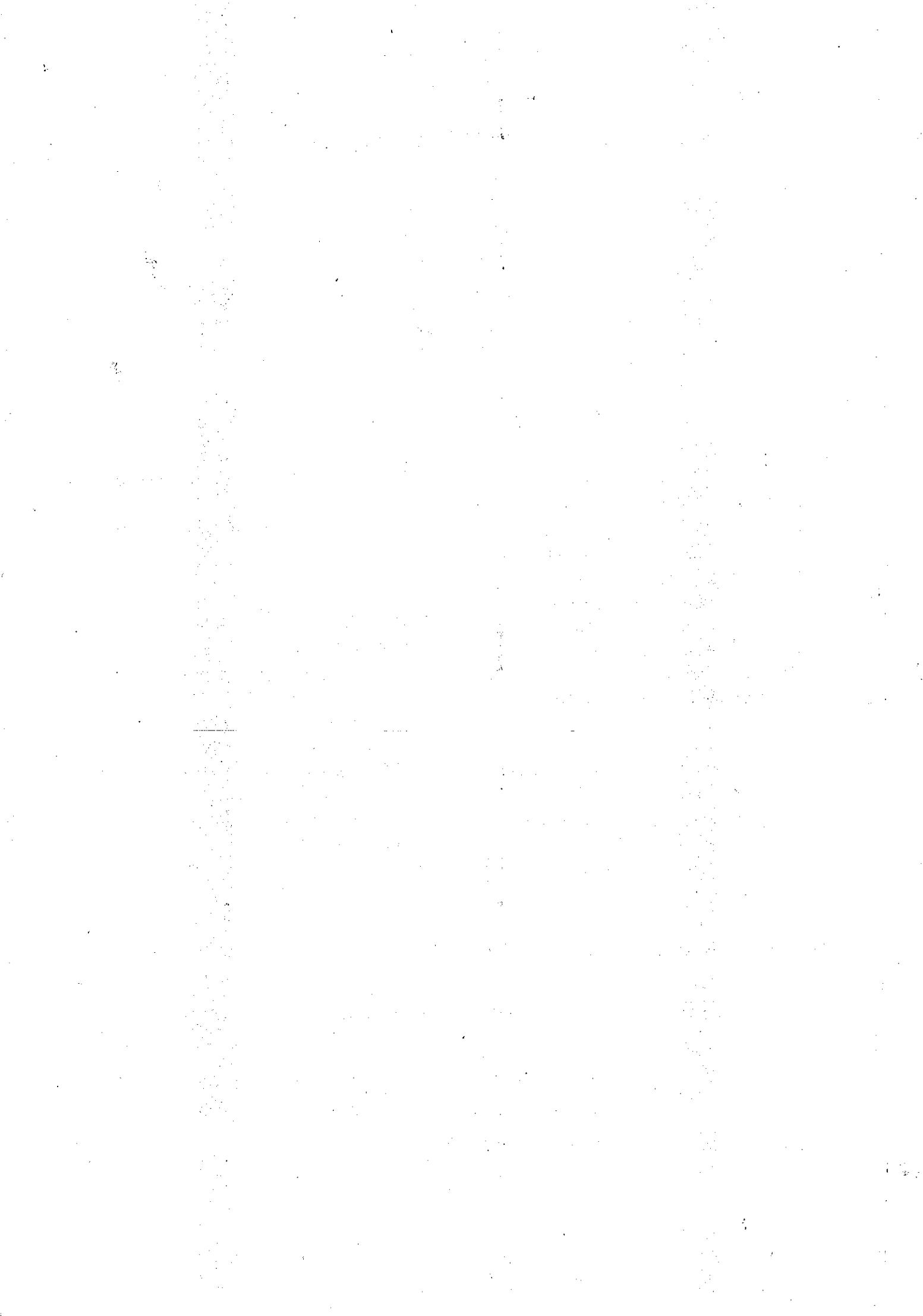
Fill in the blanks to complete the summary.

Magnetospheres _____ magnetic energy outward from the body of other objects.

The Earth has natural magnetism causing a _____ to always point north. The

_____ particles flowing outward from the sun are called solar winds. They greatly

_____ the magnetosphere of the side of the Earth facing the sun. The magnetic winds blow the magnetic waves outward on the opposite side.



Chapter 3

Inference Questions

Necessary Skills

- Perceiving ideas that are suggested but not directly stated within a passage
- Drawing conclusions based on information given within a statement or section of a passage
- Determining logical implications of the author's words

Example Questions

- Which of the following can be inferred about _____?
- The author of the passage implies that _____.
- Which of the following can be inferred from paragraph X about _____?
- Based on information in paragraphs X and Y, what can be inferred about _____?
- It is suggested in paragraph X that _____.

Strategies

- Ensure that your answer does not contradict the main idea of the passage.
- Do not choose an answer because it seems important or true. The correct answer must be inferable from the passage.
- Check that you can defend your answer choice by referring to explicitly stated information in the passage that points to the inference you have chosen.

01 Health

Read the following passage. Then fill in the diagram with the information that you read.

Track 14

The Healing Benefits of Aromatherapy

Aromatherapy uses scents from many plants to aid both the body and the mind. For years, scientists have debated the scientific merit of aromatherapy. Recently, a number of studies have shown that aromatherapy does have medical benefits.

Many of the substances—called essential oils—used to produce scents have been shown in studies to affect the body. Perhaps the most surprising find was the ability of a number of oils to fight viruses. The herpes simplex virus is common in humans and can lead to infections, sores, and even some forms of cancer. A number of oils, including sandalwood oil and peppermint oil, were found to be effective in fighting the virus. Scientists believe that chemicals within the oils can destroy the cells of the virus without harming healthy cells.

More commonly, essential oils are used to help those with emotional problems. Scientists have begun research into aromatherapy's uses in anxiety disorders. In one study, mice were placed into high-stress situations. The scientists monitored their anxiety levels. Scientists released lemon oil vapors and reviewed the mice's anxiety levels. They found that lemon oil reduced the anxiety levels of the mice. The oil targets a specific area in the brain that is usually responsible for increased stress levels.

merit:

an advantage of something

scent:

the way something smells

sore:

a small area of skin that is infected

anxiety disorder:

a condition that causes a person to fear or worry about many situations

vapor:

a gas

review:

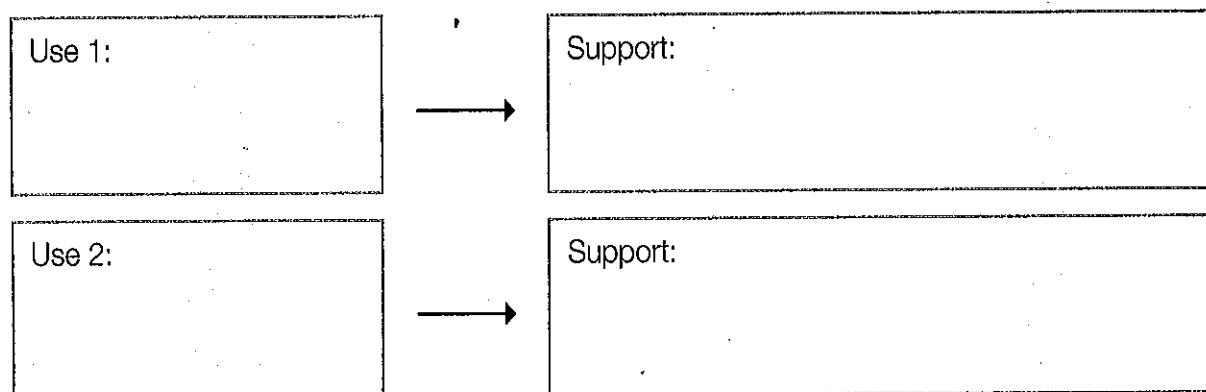
to study or examine something again

1

2

Fi

Aromatherapy



- LISTENING**
- SPEAKING**
- WRITING**
- PRACTICE TEST**
1. According to paragraph 1, which of the following can be inferred about aromatherapy's history?
 - (A) Some scientists in history have doubted its benefits.
 - (B) It has been in use longer than traditional medicine.
 - (C) It had not been researched until the 20th century.
 - (D) Ancient societies widely used aromatherapy.
 2. According to paragraph 2, what can be inferred about the herpes simplex virus?
 - (A) It is a dangerous risk to most people's health.
 - (B) It is more harmful than once thought.
 - (C) It does not affect people who use aromatherapy.
 - (D) Scientists aren't certain how essential oils affect it.
 3. What does the author imply about the mice used to test the effects of aromatherapy?
 - (A) They were selected because they had naturally high anxiety.
 - (B) Essential oils were responsible for changes in their brain chemistry.
 - (C) Only mice that had been exposed to lemons responded to the therapy.
 - (D) Their brains did not contain the receptor that controls stress.

Fill in the blanks to complete the summary.

Scientists have debated for a long time about the _____ of aromatherapy. Studies show that the _____ of essential oils affects the body physically. Some oils have been found to clear a _____ caused by a virus. A _____ of a study of oils used on mice with anxieties was conducted. It found that the essential oils were effective in reducing anxieties.

02 Anthropology

Read the following passage. Then fill in the diagram with the information that you read.

Track 15

Trace Fossils

Prehistoric vertebrates that once roamed the Earth left evidence of their activity. This evidence is often found in the form of fossilized tracks and footprints called trace fossils. Trace fossils were created when animals stepped into soft mud or silt. Their imprints then filled with sand that later turned to stone. These imprints record clues about the lives of their makers as well as the world in which they once lived.

Paleontologists study trace fossils to learn about the behavior of prehistoric vertebrates. Dense patterns of tracks, for instance, offer clues about feeding and social behaviors. In some cases, they can be used to determine how an extinct animal moved around in its environment. For example, scientists used trace fossils to discover that an animal referred to as a giant sea scorpion crawled across the sea floor.

Trace fossils also provide evidence about past environmental conditions. Sometimes, they can even overturn previously held theories. For example, scientists once thought that the entire Red Gulch area of Wyoming was underwater during the Middle Jurassic period. However, scientists recently found tracks in Red Gulch made by dinosaurs that walked on land during that period. The prints are evidence that there was an area of land very near the sea. The coastlines were once home to several species of dinosaurs.

vertebrate:

an animal with a spine

roam:

to move across an area, often without a destination

track:

a mark that an animal leaves on the ground

overturn:

to say that something is wrong and change it

coastline:

the land near a sea

Trace Fossils

Definition:

Role 1:

Role 2:

- ck 15
1. The author of the passage implies which of the following about trace fossils?
 - (A) The species that made them are now extinct.
 - (B) They are only made by large animals.
 - (C) The best trace fossils form in deserts.
 - (D) They are only found in rivers and beaches.
 2. According to paragraph 2, what can be inferred about the giant sea scorpion?
 - (A) It adapted to life in the desert.
 - (B) It lived in the sea.
 - (C) Trace fossils are the only evidence of its existence.
 - (D) It created interesting patterns of tracks.
 3. In paragraph 3, what does the author imply about the environment of Red Gulch during the Middle Jurassic?
 - (A) Scientists once thought land dinosaurs could not live there.
 - (B) The area was once populated by many species.
 - (C) It was a good place for vertebrates to live.
 - (D) It was similar to the environment there today.

Fill in the blanks to complete the summary.

A trace fossil is a _____ or footprint of a prehistoric animal. Trace fossils provide information on the animals that once _____ the Earth. These findings often _____ prior theories regarding the era of the dinosaurs. Evidence was found, revealing several species of dinosaurs that lived along the _____. Paleontologists also study trace fossils to learn about the behavior of the dinosaurs.

03 Biology

Read the following passage. Then fill in the diagram with the information that you read.

Track 16

Eating Habits of Starfish

One would think that Echinoderms—more commonly known as starfish—would struggle to stay alive in their underwater environment. Starfish have unusually tiny mouths given their diet of shellfish, dead fish, and other slow-moving creatures. In fact, their mouths are often many times smaller than their prey. Nonetheless, starfish are quite capable of catching and devouring large bivalve mollusks, a type of shellfish with two shells that clamp together, such as clams and mussels. They accomplish this task by relying on their arms and their stomachs.

Starfish use their powerful limbs first to grasp and then force open their prey's shell. They grasp their prey through the use of thousands of tubular projections called tube feet that line the underside of their arms. Starfish use their tube feet like suction cups to latch onto and restrain their prey. They then use water pressure within their bodies to pry open the mollusk's shell. With the shell open, starfish can access the edible part of the mollusk.

Starfish do not devour mollusks directly with their mouths but rather via a system of two stomachs: a cardiac stomach and a pyloric stomach. After prying open a mollusk's shell, the starfish pushes its cardiac stomach out of its body and into the mollusk's shell. The stomach expands and wraps completely around the soft tissue of the mollusk's body, thus beginning the process of digestion. When its prey is partially digested, the starfish pulls the cardiac stomach back into its body and transfers the partially digested food to its pyloric stomach for further digestion.

shellfish:
aquatic animals that are covered in a shell

capable:
able to do something

devour:
to eat something completely

restrain:
to hold something in a particular place

pry:
to force something to open

Starfish's Eating Habits

Aspect 1:



Explanation:

Aspect 2:



Explanation:

- 6
1. What does the author imply about clams and muscles?
 - (A) They are difficult for starfish to digest.
 - (B) They are easy for starfish to catch.
 - (C) They are larger than a starfish's mouth.
 - (D) They are the starfish's preferred food.
 2. In paragraph 2, what can be inferred about tube feet?
 - (A) Starfish use them to move across the sea floor.
 - (B) They help starfish find their prey.
 - (C) They can be used to carry the starfish's prey
 - (D) Starfish could not eat mollusks without them.
 3. According to paragraph 3, what can be inferred about the functioning of the pyloric stomach?
 - (A) It is not as effective as the cardiac stomach.
 - (B) It is not pushed outside of the starfish's body.
 - (C) It digests less food than the cardiac stomach.
 - (D) It is only used when the starfish eats small prey.

Fill in the blanks to complete the summary.

The starfish is _____ of capturing its prey despite its small mouth. It is also able to _____ large bivalve mollusks like clams and mussels. Their tube feet act as suction _____ that capture and _____ their prey. Water pressure within their bodies enables them to _____ open mollusk shells. Their eating relies on their arms and stomachs, which are both unique.

04 Geology

Read the following passage. Then fill in the diagram with the information that you read.

Track 17

Mass Wasting

Many people think hurricanes and tornadoes are the most destructive forces on Earth. However, an equally destructive force is at work every day: mass wasting. Mass wasting, simply put, is the movement of surface rock and debris down a slope as a result of gravity. It is responsible for approximately \$2 billion worth of damage and dozens of deaths annually in the United States. Overseas, catastrophes triggered by mass wasting have killed tens to hundreds of thousands of people in seconds.

One hazard that results from mass wasting is slope failure. This can occur when a large mass of rock detaches from a mountainside and slides down the slope. Such a collapse is often sudden and violent, causing a great mass of loose debris to cascade downhill. In other cases, an entire layer of the ground near a slope can detach and begin sliding down a mountainside. Due to heavy rainfall in Japan in 1999, thirty-one people were killed as a slope collapsed.

Landslides are another hazard that results from mass wasting. The technical term for a landslide is sediment flow, which better describes the fluid nature of its composition and movement. Most sediment flows are a mixture of rock debris, water, and air that flow downhill. Sometimes the movement is a scarcely noticeable centimeter per year. Other times, a volatile mixture of heavy rains and loose sediments creates high velocity mudslides reaching up to eighty kilometers per hour. A tropical storm in 1985 caused a mudslide that buried over 100 homes in Puerto Rico.

debris:
loose fragments of rock and dirt

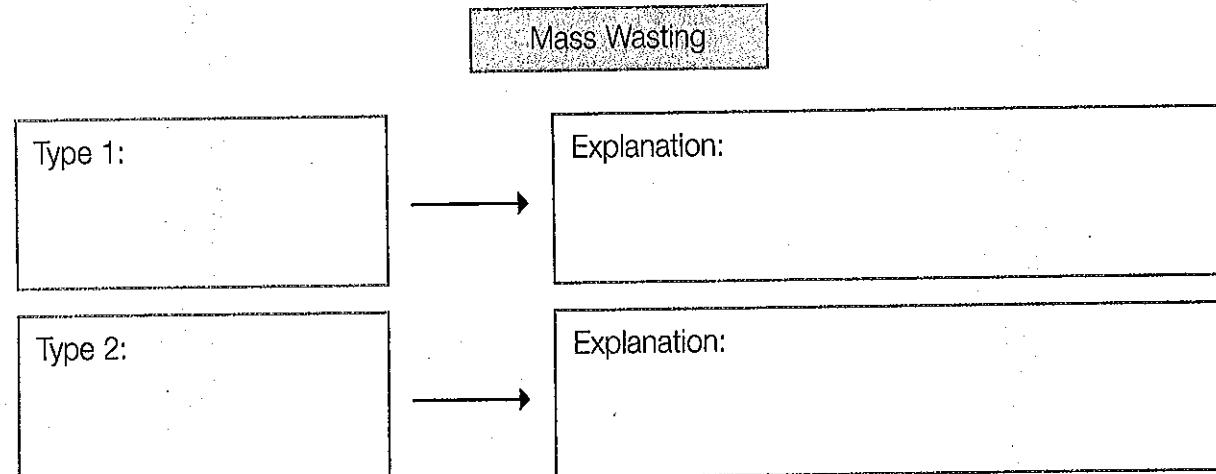
catastrophe:
a very damaging or negative event

trigger:
to make something happen

detach:
to separate from something

sediment:
matter deposited by water or air

volatile:
easily becoming dangerous



1. According to paragraph 2, which of the following can be inferred about the dangers posed by slope failure?
 - (A) It only poses risks to people living in mountains.
 - (B) It poses less of a hazard than sediment flow.
 - (C) It can destroy homes from above or below.
 - (D) It is difficult to estimate the damage it can cause.
2. According to paragraph 3, which of the following can be inferred about mass wasting?
 - (A) Its effects are not always immediately destructive.
 - (B) It is less costly overseas than in the U.S.
 - (C) More people die from mass wasting than other catastrophes.
 - (D) It causes more damage than hurricanes and tornadoes combined.
3. In paragraph 3, which of the following can be inferred about mudslides?
 - (A) They are the least dangerous form of mass wasting.
 - (B) They often occur after storms.
 - (C) They are the most fluid form of landslide.
 - (D) They do not contain debris.

Fill in the blanks to complete the summary.

Mass wasting is a _____ that can be as destructive as a hurricane. Heavy rainfalls may _____ a landslide and kill many people in seconds. A large mass of rock can _____ itself from a mountainside, causing devastation. Tropical areas with numerous hills and heavy torrential rains are most _____. A mudslide can cover hundreds of homes in a matter of seconds.

05 Fine Arts

Read the following passage. Then fill in the diagram with the information that you read.

Track 18

Radio Drama

Radio dramas are productions of plays done over the radio using voice actors and sound effects. Some dramas, called serial dramas, use multiple episodes to develop a long story. Most people today think that live-action theater and television are the best mediums for theatrical dramas. However, radio has been the medium of choice for several successful modern dramas. This is because it has two clear advantages over live theater productions.

The first advantage is cost. One of the most successful modern radio serial dramas was Douglas Adams's *Hitchhiker's Guide to the Galaxy*, a story about one man's voyage across the universe. This science fiction series built up its reputation with good storytelling and low-cost, audio special effects. Special effects helped the listeners imagine the fantastical settings and characters. This made the program very entertaining. To produce the series in a theater, Adams would have had to rely on elaborate sets, lighting, and special effects. However, Adams had a small budget. Thus, this would have been impossible.

The second advantage is that new technologies often make it easier to create a radio drama than a theatrical drama. A good example can be seen in the 2003 radio drama *Not From Space*. The program was made by a group of voice actors working in several different places. This was only possible because they made the program using the Internet, sending their own parts to be merged into a single drama. In traditional theater, such a production would be impossible. Live theater requires the presence of all actors in one place; radio dramas allow actors to have more flexible schedules. The success of programs like *Not From Space* suggests that, despite the successes of live theater and television, radio dramas still have a place in modern drama.

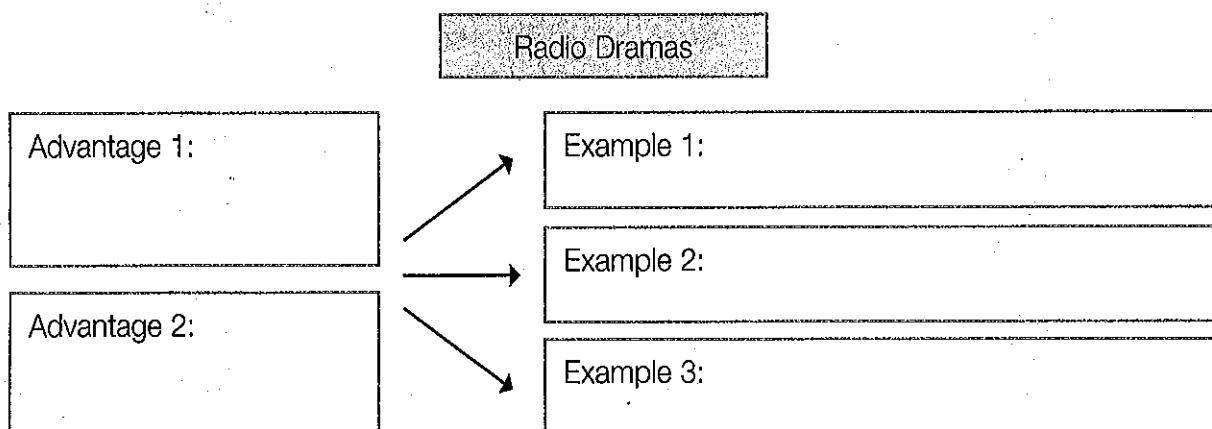
episode:
one show in a series

medium:
a way that something is transmitted

voyage:
a long trip

fantastical:
Imaginary; made-up

merge:
to blend or unite



1. In paragraph 1, what does the author imply about serial dramas?
 - (A) They are more popular when produced for TV.
 - (B) Most serial dramas are not produced on radio.
 - (C) TV dramas replaced many radio dramas.
 - (D) Radio was the medium of choice in the past.

2. In paragraph 2, what can be inferred about visual special effects?
 - (A) They cannot be used in live theater productions.
 - (B) They are more costly than audio special effects.
 - (C) They are not suited to science fiction serials.
 - (D) They were not considered for Adam's production.

3. What can be inferred about the future of radio serials?
 - (A) They will increasingly rely on the Internet.
 - (B) They will be made in one place.
 - (C) They will replace TV serials.
 - (D) They will focus on science fiction.

Fill in the blanks to complete the summary.

For some, radio drama is a preferred _____ to present dramatic presentations. It enables listeners to imagine the _____ settings produced by sound effects. The voice actors' roles can be _____ into a drama via the Internet. The tale of a _____ becomes vivid in the minds of the listeners. Radio drama is less expensive to produce and provides actors with flexibility.

06 Fine Arts

Read the following passage. Then fill in the diagram with the information that you read.

Track 19

The Stages of Minoan Pottery

The Mediterranean people who lived on the island of Crete are famous for their pottery. During the years spanning the Bronze Age, the pottery evolved through three major stages.

The first stage was known as the Early Minoan period. This period of time from 3000 to 2000 BCE is considered the Early Bronze Age, and the Minoans, the people of Crete, were a thriving nation. The pottery they created consisted of plain and simple designs. Initially, they used interesting patterns of straight lines to decorate the clay. Eventually, this phased into designs of spirals in succession or curved motifs painted in a white or cream color on a dark background.

The Middle Minoan period, from 2000 to 1600 BCE, corresponded to the Middle Bronze Age. Decoration on this period's pottery was a further development of the previous period. The prevailing patterns were curved designs painted in yellow, white, or red, swirling around the surfaces of the round pottery. Newly included were modeled flowers and animals paired with painted motifs on the surface of the vases. The coloration used by potters during this middle period consisted of light colors painted on a dark background. It was during this middle period that the potter's wheel was invented, marking what is perhaps the most significant invention in the history of pottery. As a result, potters were able to create more delicate pottery than they could by hand. Some clay pots were as thin as eggshells.

During the start of the Late Bronze Age, around 1500 BCE, Minoan pottery developed into the marine style. It differs from earlier styles in that the light-on-dark style of painting was replaced by dark-on-light decoration. Moreover, marine style pottery moved away from once preferred floral subject matter. Rather, it focused on the realistic depiction of ocean creatures such as octopi, dolphins, and a variety of fish. These animals were set upon a background of rocks, sponges, and seaweed. The surfaces of pots were densely packed with marine imagery. Many regard it as the most successful style of Minoan pottery. It also was the last purely Minoan style of pottery created on Crete.

in succession:
In a series; one after another

motifs:
dominant themes or features

prevailing:
dominant; most common

delicate:
easily broken

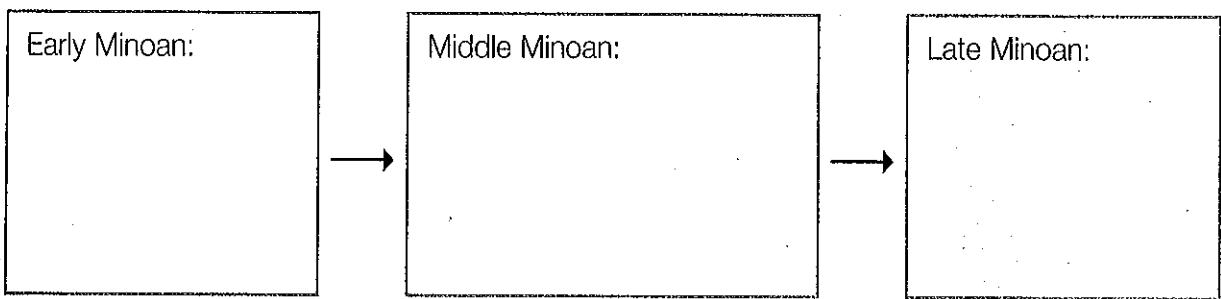
densely:
very close together

1.

2.

Fill

Stages of Minoan Pottery



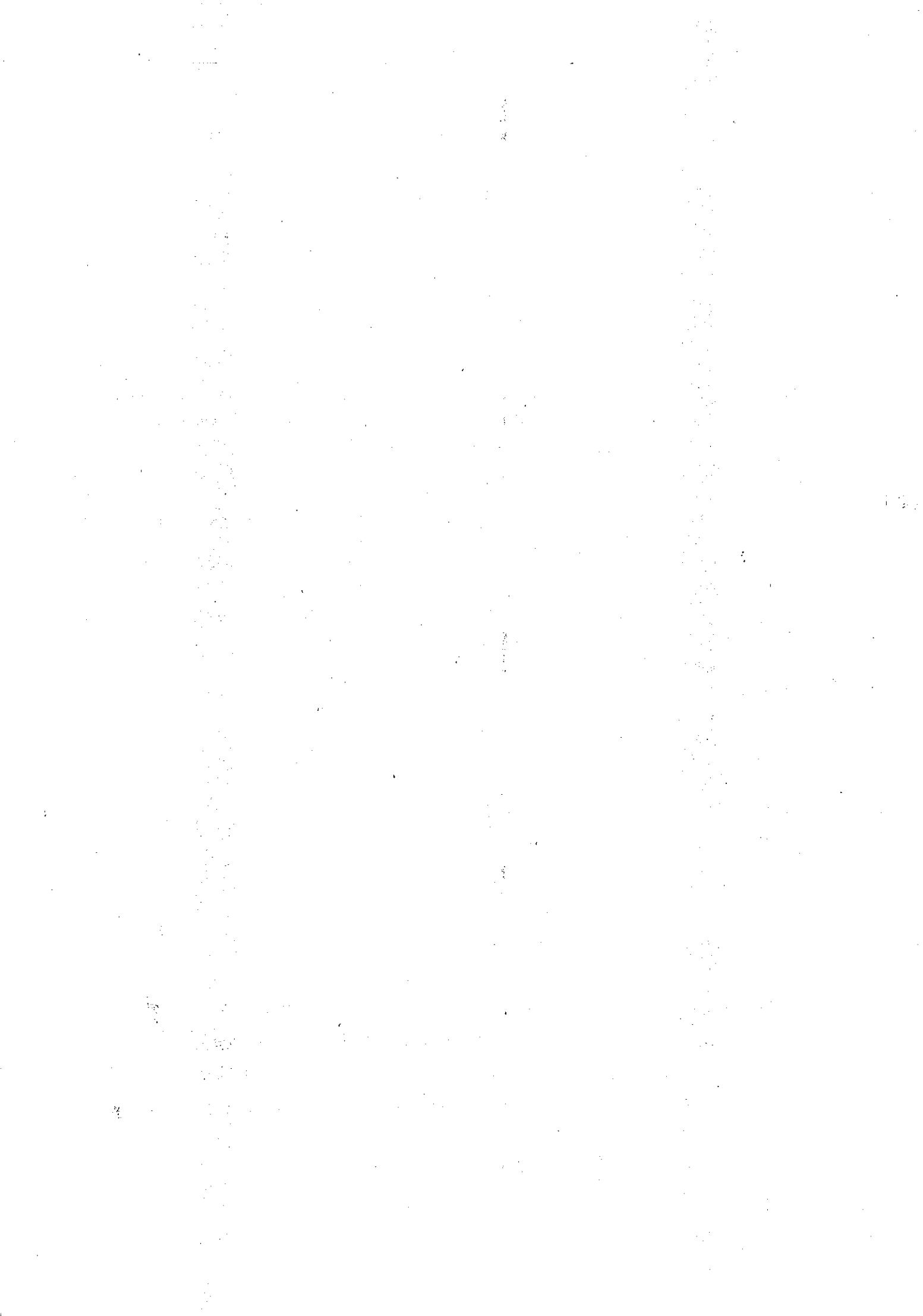
1. Which of the following can be inferred about the pottery in the Early Bronze Age?
 - (A) It was more fragile than later pottery.
 - (B) It was not created using a pottery wheel.
 - (C) It was made only for royal families.
 - (D) It was created as a hobby for many Minoans.

2. It can be inferred that artists in the Middle Minoan period became which of the following?
 - (A) More experimental with color and design
 - (B) Concerned with creating unusual shapes
 - (C) Worried about creating more durable pots
 - (D) More focused on accurate depictions of nature

3. From paragraph 4, which of the following can be inferred about the Late Minoan stage?
 - (A) It was the end of pottery making on Crete.
 - (B) Artists focused on depicting sailors in their art.
 - (C) Artists developed many new ceramic techniques.
 - (D) It was the peak of Minoan ceramic art design.

Fill in the blanks to complete the summary.

Early Minoan pottery had designs of spirals _____, painted in light colors. Brighter colors were added to the _____ patterns during the Minoan middle years. A more _____ pottery was created with the invention of the potter's wheel. Minoans began to _____ pack marine imagery onto the surfaces of their pots. This was the last Minoan style and is considered their best pottery.



Chapter 4

Rhetorical Purpose Questions

Necessary Skills

- Determining why the author has presented a piece of information in a certain place or way within a passage
- Understanding the role of a certain statement in a passage
- Inferring the author's intention in mentioning certain information
- Relating specific information to the main ideas of a passage in order to understand the purpose of the information

Example Questions

- The author discusses _____ in paragraph X in order to
- Why does the author mention _____?
- The author uses _____ as an example of

Strategies

- Learn and understand the meaning of certain words and phrases often used to describe rhetorical purposes: *definition, example, function, to illustrate, to explain, to contrast, to refute, to note, to criticize.*
- Focus on logical links between sentences and paragraphs in a passage.

01 Astronomy

Read the following passage. Then fill in the diagram with the information that you read.

Track 20

Martian Canals

In 1877, Mars's orbit brought the planet closer to Earth than in earlier years. This allowed for many new discoveries. It was then, for example, that astronomers saw two moons circling the planet. But, of even more interest, Giovanni Schiaparelli, through telescopic observation, identified lines on Mars, which he called canali—a discovery that changed human's beliefs about the solar system for a century.

A simple linguistic misinterpretation caused many to have false beliefs about the canali. In Italian, canali can mean "channels" or "grooves." Records show that is all Schiaparelli meant. The lines he saw on Mars were just surface grooves. However, the Italian word canali is very close to the English word "canal." A canal is a man-made channel for water. Newspapers sensationalized the stories around the world. This, in turn, led some astronomers to draw up maps of Mars showing oases, lakes, and canals in the planet's driest areas. Eventually, many agreed that there must be intelligent life on Mars, or such grand canals would not exist.

This belief, however, was later disproved. With an increase in technological capability came new data. In the 1970s, a robotic spacecraft flew close to Mars. It took clear pictures of the planet. The Martian "canals" proved to be nothing more than naturally occurring channels, perhaps formed at a time when Mars had liquid water.

orbit:

the path a planet takes as it moves through space

misinterpretation:

a wrong understanding of something

groove:

a line cut into the surface of an object

sensationalize:

to make an event seem more exciting than it really is

oasis:

a small, green area in a desert, usually having a source of water

grand:

very impressive

Martian Canals

Cause:

Effect 1:

Effect 2:

1. Why does the author bring up the two moons of Mars in paragraph 1?
- To explain the importance of Schiaparelli
 - To give an example of a discovery
 - To provide a definition for the word canali
 - To show how human understanding of space changed
2. Why does the author describe the similarity between an Italian and an English word in paragraph 2?
- To describe how Mars canals were named
 - To suggest that Schiaparelli made a mistake
 - To argue that the lines on Mars were canals
 - To show the origin of a misunderstanding
3. Why does the author mention technological capability in the passage?
- To explain how Mars was first explored
 - To suggest that a theory was correct
 - To show how a theory was disproved
 - To show the role of robotic spacecraft

Fill in the blanks to complete the summary.

Astronomer Schiaparelli's term for lines he saw on Mars was cause for _____. Canali in Italian means _____; however, it is close to the word canal. Newspapers began to _____ the news of the discovery of canals on Mars. _____ canals on Mars led to the possibility of life on Mars. Modern technology has since disproved the idea of water canals on Mars.

02 Fine Arts

Read the following passage. Then fill in the diagram with the information that you read.

Track 21

Staging

In the study of the theater, staging—the way a play actually looks **onstage**—is extremely important. Staging can include scenery and props as well as costumes, lighting, and sound. The concept of staging has changed markedly over the years.

The Elizabethan theater of Shakespeare's day used almost no scenery or props, with one notable exception. Unlike plays that came before, costumes of the early 1600s were often quite elaborate. Indeed, many audience members came to the plays just to see the costumes worn by the actors. Otherwise, an actor's prop might be nothing more than a sword or a crown. Chairs or tables were commonly painted on backdrops. The setting was described through the actors' words, not through scenery or props onstage.

This all changed in the late 1800s. Now, rather than seeing a wall painted on a backdrop, the audience could see a real wall, made of wood and complete with a door and windows, onstage. Lighting, which had come from natural sources (typically the sun) in Elizabethan times, was now achieved through limelights, which created bright light by passing a flame through a cylinder of lime. Music and sound effects also influenced staging. Music added to the mood and meaning of a play, helping the audience better understand the action onstage.

scenery:

the painted background of a theater stage

prop:

an object used in a stage production

markedly:

in a way that is easily noticed

exception:

something that is different and cannot fit into a certain statement

elaborate:

very detailed or complex

lime:

a mineral often used in building materials

Stage 1:

Stage 2:

Description:

Description:

1. Why does the author include the way a play actually looks onstage in the passage?
 - (A) To compare two staging methods
 - (B) To define a key term
 - (C) To list a step in a process
 - (D) To explain an aspect of staging
2. Why does the author describe actors' costumes in Elizabethan times?
 - (A) To present a difference to the previous way of staging
 - (B) To explain how costumes changed during that era
 - (C) To suggest that costumes were more important than props
 - (D) To give an example of a typical Shakespearean costume
3. Why does the author mention real walls in paragraph 3?
 - (A) To explain the effects of walls upon lighting design
 - (B) To argue that sets in the 1800s were not artistic
 - (C) To demonstrate how painting was used in scenery
 - (D) To show how sets had evolved by the late 1800s

Fill in the blanks to complete the summary.

Early stage productions consisted of basic _____ and actors used few props. The Elizabethan era was known for their _____ costumes when staging Shakespearian plays. With the _____ of costumes, Elizabethan stages had very few props. Staging has changed _____ from the previous painted backdrops to constructed walls. Staging today is very realistic with moving sets, working doors, and windows.

03 Economics

Read the following passage. Then fill in the diagram with the information that you read.

Track 22

Tulip Mania

Prices of goods rise or fall depending upon the good's supply and consumers' demand for it. If many people want to buy a scarce product, its price will most likely rise. At times, however, the price of a good may skyrocket to an unsustainable level in an economic event called a "bubble." History reveals that the price of a very unlikely good—the simple tulip—soared, actually resulting in a bubble, and then plunged shortly thereafter.

In 17th century Holland, tulip bulbs were valuable investments. Not only was there a limited supply of them, but many people wanted them. In fact, by 1623, a tulip bulb could cost as much as 1000 florins, the Dutch unit of currency at the time. Yet the average yearly income was a mere 150 florins. By 1635, a single bulb sold for 6,000 florins. The price had peaked.

By 1637, tulip sellers could no longer get such inflated prices. Buyers did not feel tulips were a good investment. Thus, no one was interested in paying such prices for a tulip bulb. As a result, the bubble popped, and the price of tulip bulbs fell rapidly. Many people lost all their money as a result of this crash. Holland's economy was crippled for many years after the tulip craze.

scarce:

short in supply; hard to find

skyrocketed:

to rise quickly to a very high level

tulip:

a colorful flower that grows during the spring

plunge:

to fall quickly or suddenly

crippled:

very badly damaged

1.

2.

Fill

Tulip Mania

Stage 1:

Stage 2:

Description:

Description:



1. In paragraph 1, why does the author mention supply and demand?
 - (A) To explain the cause of a bubble
 - (B) To show its effect on prices
 - (C) To clarify how supply functions
 - (D) To describe how to limit rising prices
2. Why does the author use the word unlikely when introducing the tulip?
 - (A) The tulip was an item that was hard to find in Holland.
 - (B) It is surprising that the tulip would be desired by consumers.
 - (C) Tulips did not likely have an effect upon worldwide economies.
 - (D) The tulip does not seem important enough to cause a bubble.
3. Why does the author include the average annual 1620's Dutch salary?
 - (A) To suggest that most people could afford tulips
 - (B) To argue that tulips were underpriced goods
 - (C) To offer a basis of comparison for tulip prices
 - (D) To explain the cause of the tulip's rising prices

Fill in the blanks to complete the summary.

At one time, tulips were _____ in Holland, making them a valuable investment.

The demand for tulip bulbs was high, which made the cost _____. When buyers would not pay the inflated prices, the market took a _____. This eventually

_____ Holland's economy for many years after the tulip craze. It is called a "bubble" when prices reach an unsustainable economic level.

04 History

Read the following passage. Then fill in the diagram with the information that you read.

Track 23

Roman Clothing

In ancient Roman society, social status was a constant concern of all citizens. Most wanted to be seen as possessing a high position that commanded respect from the rest of the people. Rome was, in essence, a society that relied upon face-to-face interactions. Thus, the primary way to display a person's social status was through clothing.

This fact can be seen most easily in the garments actually worn by Roman citizens. The most common garment for Roman citizens was the tunic: two pieces of cloth sewn together that fell just above the knees. Nearly all citizens wore this type of garment, making it appropriate for the working classes. However, a more magnificent garment was the toga. Consisting of one large piece of cloth that was often draped over a tunic, togas were often uncomfortable. They were meant simply as public display garments. Those of high status—such as politicians—wore togas of high-quality wool to demonstrate their positions of power.

Color was also a marker of social status in Rome. This is especially apparent in the stripes that adorned many Roman tunics. The most basic tunic worn by the working class was colorless; it had no stripes or color whatsoever. Politicians, however, were entitled to tunics that had thick, brightly colored stripes that made their high social status apparent to any passerby. The toga shared similar qualities. While most citizens wore dull white togas, those of high status wore togas that had been colored. Some elected to bleach their togas a bright white. Others, such as emperors, stood out with bright purple togas.

command:
to deserve and receive

garment:
a piece of clothing
sew:
to fasten clothes together
using thread

drape:
to hang cloth
entitled:
having the right to do
something

Theory:

Roman Clothing

Support 1:

Support 2:

Support 3:

Support 4:

1. The author mentions face-to-face interactions in order to
 - (A) explain an aspect of Roman society
 - (B) show the importance of social status
 - (C) describe Rome's social structure
 - (D) illustrate how social status was gained

2. In paragraph 2, why does the author say that most togas were uncomfortable?
 - (A) To suggest that many Romans disliked togas
 - (B) To imply that they were not often worn
 - (C) To explain that tunics were superior
 - (D) To clarify the function of the toga

3. The author uses purple
 - (A) to suggest that Romans preferred bright colors
 - (B) as an example of a color used by Roman nobility
 - (C) to support the idea that Romans used stripes
 - (D) as a description of the common Roman tunic

Fill in the blanks to complete the summary.

The clothes worn in ancient Rome determined the respect one could _____. Those in high positions felt _____ to wear garments demonstrating their status. Common people would _____ two pieces of material together, called a tunic. The common tunic was worn by all; however, dignitaries wore an extra _____ called a toga. Those of a higher social status had more color in their garments.

05 Biology

Read the following passage. Then fill in the diagram with the information that you read.

Track 24

Peppered Moth Evolution

While some evolutionary events are major processes that take thousands of years, most changes are very minor. Such is the case with the peppered moth, which experienced a color change in a relatively short period of time. As scientists began exploring the causes of such evolution, the peppered moth became an intriguing case. After much study, they found that the peppered moth evolved due to human pollution during the Industrial Revolution.

Before the rise of industry, the peppered moth's color varied little. Nearly all members of the peppered moth family appeared as a light grey color. Rarely, they appeared a dark black color. Scientists studying the moth discovered a specific purpose of this coloration. The main habitats of the peppered moth are areas of grey-colored tree bark or fungus. Thus, the color of the moth allows it to naturally blend in with its environment. The predators of the peppered moth—various species of birds—are less able to tell the moth apart from its surroundings. In essence, the moth's coloration was a means of protection and survival.

During the Industrial Revolution, however, the face of the peppered moth's habitat changed. As coal factories were built and operated, vast amounts of pollution were released into the air. The pollution extended even into the areas in which the peppered moth dwelled. In many areas, the pollution was so severe that grey tree bark became covered in a black layer of coal soot. Grey moths no longer had the advantage of camouflage and were easy prey for birds. The black moths—previously few in number—benefited from the ability to blend in with the polluted area. From here, evolution took over, increasing the frequency of black peppered moths to nearly 98 percent.

moth:

a very small insect with wings

Industrial Revolution:
a period in 18th century Europe when machines and factories became common

face:

appearance; the way something looks

extend:
to continue from one place to another

dwell:

to live in a particular place

soot:

a black powder produced when something is burned

Peppered Moth Evolution

Theory:

Support 1:

Support 2:

1. The author discusses pollution in paragraph 1 in order to
 - (A) compare two similar events
 - (B) define a term related to industry
 - (C) explain peppered moth migration
 - (D) illustrate a cause of evolution
2. The author includes the phrase various species of birds in order
 - (A) to explain that moth evolution was caused by predation
 - (B) to expand upon the function of the moth's coloration
 - (C) to describe the conditions of the moth's environment
 - (D) to suggest that the moth has many predators
3. Why does the author use the word even when describing the pollution of the Industrial Revolution?
 - (A) To suggest that the pollution's effects were overstated
 - (B) To highlight the damage caused by the pollution
 - (C) To emphasize the extent of the pollution.
 - (D) To explain how the pollution spread

Fill in the blanks to complete the summary.

The Industrial Revolution brought new coal factories where the peppered moths

_____ . As the _____ of its habitat changed, the moth changed to survive.

The pollution from the factories _____ into the area where they lived. The

_____ from the factories changed the color of the tree bark. The moths could no longer camouflage themselves until they evolved to the same color as the black bark.

06 Psychology

Read the following passage. Then fill in the diagram with the information that you read.

Track 25

The Theory of Needs

Formulated by David McClelland, the acquired-needs theory attempts to explain how an individual's motivation develops. For example, his theory might try to find a source of a person's desire to pursue a particular career, such as politics. The driving forces behind all motivation are three categories of needs: achievement, power, and affiliation.

Many people are driven by a need to achieve. In essence, this need tends to cause people to pursue activities or careers that guarantee them success. A person driven by achievement is likely to avoid unfamiliar situations altogether. In one of McClelland's experiments, he asked a group of people to throw rings onto a peg from any distance they felt comfortable with. Individuals with a need to achieve chose distances from which they knew they could easily complete the task. This need for success can translate to all aspects of a person's life, including career choices.

Power is also a motivator of many needs. Many people need to feel a sense of power over others. In other cases, a person might feel a need for social power: to organize other people and help them gain power. According to McClelland, a need for personal power is often a negative quality. For example, one study at a company tested two leaders: one with a need for personal power and one with a need for social power. The former tended to make the employees feel resentful due to his overbearing management style. When swapped for the manager with a need for social power, however, the employees felt empowered.

Still others are driven by a need of affiliation. The main basis of this need is a desire to feel accepted by others. This can have a wide range of effects upon personality. While some greatly enjoy the company of others, some fear it. Such people, driven by their need to feel accepted, fear any situation where they may not find acceptance. This often agonizing feeling has been cited as a major cause of depression. One study also found that this can be harmful in the workplace, especially for managers. In a number of cases, a manager only did what would make him popular with his employees, not what was best for the business.

driving:

influencing another thing in a strong way

overbearing:

very controlling

empower:

to give a person more control or power in a situation

affiliation:

a connection with a group of people

agonizing:

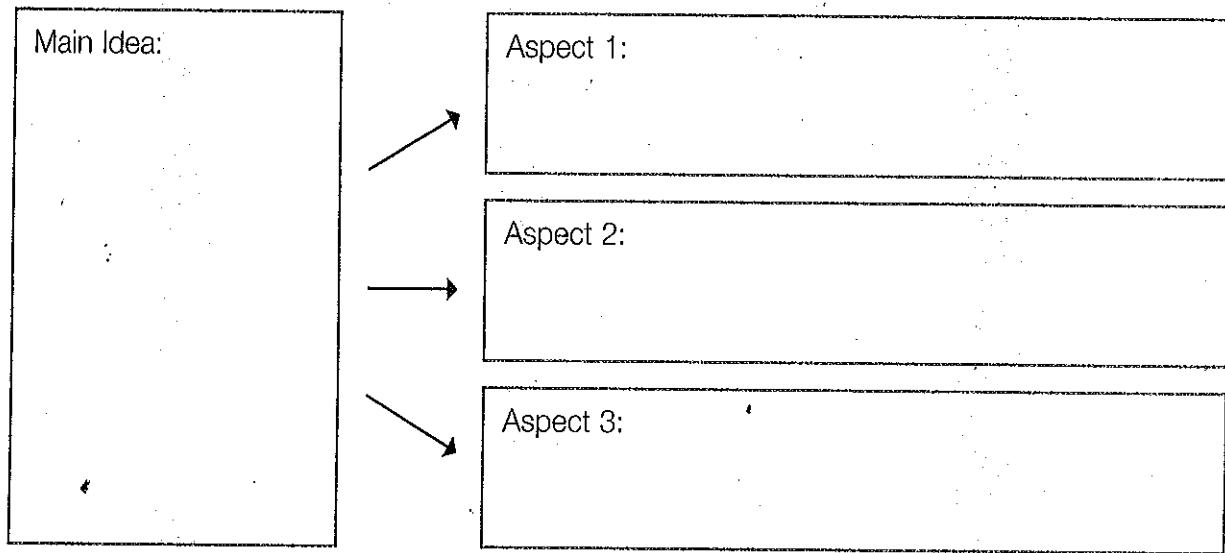
extremely painful or difficult

1.

2.

Fill

The Theory of Needs



1. The author mentions politics in order to
 - (A) mention an application of a theory
 - (B) explain the use of a term
 - (C) describe the history of a theory
 - (D) provide an example of an achievement
2. The author says that some people avoid unfamiliar situations to give an example of
 - (A) a source of success for those with the need to achieve
 - (B) a low-risk situation with no reward
 - (C) a motivation of people who want power
 - (D) an effect of the need to achieve
3. Why does the author discuss a study at a company in paragraph 3?
 - (A) To argue that social power is harmful
 - (B) To define the term "personal power"
 - (C) To compare the effects of two types of power
 - (D) To explain how personal power benefits managers

Fill in the blanks to complete the summary.

There are three _____ forces that motivate people in choosing career paths. Managers who are driven by power are often _____ to their employees. Managers who have a need for social power generally _____ their staff. Motivation of personal power is often a negative quality in a person. A manager's _____ feeling of non-acceptance can be harmful to a company.

Vocabulary Review 1

Instructions: Choose the best word or phrase to complete each sentence.

1. The towel _____ the spilled water on the floor.

(A) monitored
(B) plunged
(C) swatted
(D) absorbed

2. He _____ his jacket over the chair as he walked in.

(A) draped
(B) swatted
(C) sewed
(D) scurried

3. When the elevator lost power, Jim had to _____ the doors open.

(A) flock
(B) pry
(C) thwart
(D) compact

4. After the ship sank, _____ could be found all along the beach.

(A) voyages
(B) prompts
(C) departures
(D) debris

5. The flower is pretty, but it does not have much of a(n) _____.

(A) activity
(B) scent
(C) species
(D) vapor

6. After Rachel got a tutor, her grades _____.

(A) restrained
(B) roamed
(C) sensationalized
(D) skyrocketed

7. Fruit is a(n) _____ snack of parents because it is very healthy.

(A) native
(B) ornate
(C) adopted
(D) favored

8. The manager _____ the respect of all of his employees.

(A) devours
(B) monitors
(C) commands
(D) radiates

Instructions: Choose the word or phrase closest in meaning to the underlined word(s) in each sentence.

9. The product is rare because they can't make enough of it.

(A) scarce
(B) adopted
(C) vivid
(D) ornate

10. It is difficult to locate the source of a very quiet sound.

(A) compact
(B) pinpoint
(C) retain
(D) strive

11.

12.

13.

14.

15.

11. Two people may have very different viewpoints of a single event.

(A) perspectives
(B) pests
(C) altitudes
(D) nutrients

12. While the pot is beautiful, it is also very useful.

(A) charged
(B) urban
(C) functional
(D) profound

13. The table was made of glass, so it was very breakable.

(A) fantastical
(B) crippled
(C) delicate
(D) overbearing

14. The theater's rising attendance connects with the start of summer.

(A) corresponds
(B) detaches
(C) merges
(D) evaporates

15. Not all species of penguins live in cold, arctic conditions.

(A) pave
(B) dwell
(C) alter
(D) retain

Instructions: Write the missing words. Use the words below to fill in the blanks.

continent promising triggered
overturned reviewed

It is fairly common for a scientific theory to be

16. _____ in light of recent scientific discoveries and, in many cases, these theories can be 17. _____. In the past, scientists had suggested that the population of Southeast Asia originally migrated from a small population in Taiwan, which spread throughout the Asian 18. _____. However,

19. _____ new research using DNA testing has 20. _____ a reversal of that theory; instead, they believe people migrated into Taiwan instead of leaving that area.

Instructions: Match the words that are similar in meaning.

- | | |
|----------------|---------------|
| 21. strive | (A) location |
| 22. agonizing | (B) watch |
| 23. difference | (C) try |
| 24. observe | (D) painful |
| 25. area | (E) variation |

Mini Test 1

01 History

Read the passage and answer the questions.

Track 26

Cats and the Bubonic Plague

During the 14th century, a mysterious disease spread throughout Europe, killing millions of people. Doctors had no idea what the disease was or how it was spread. The terrifying illness took a toll on the society of the Middle Ages. People became very superstitious. One superstition was that cats were evil and were somehow responsible for the illness. This superstition led people to kill an estimated 200,000 cats until there were few left. Little did they know that cats could have helped prevent the disease in several ways.

One way that cats could have helped stop the disease, called the bubonic plague, was by killing rats. Later, when doctors studied the illness, they determined that the bubonic plague was spread by fleas living on the bodies of rats. At the time, millions of rats roamed freely in the city streets. People did not take any measures to defend themselves from the seemingly harmless rats. Thus, they were easily infected. As rats came into contact with humans, the infected fleas migrated from the rats' bodies onto humans. Thousands of humans were quickly infected this way. Had there been more cats in the city, they could have reduced the number of rats and slowed the spread of the disease.

Another way that cats could have prevented the bubonic plague was by keeping rats away from humans in the first place. In modern studies, scientists have found the mere smell of a cat will keep rats away from a house. This is because rodents have a gene that tells them to be afraid of cats. When they smell a cat, they know that they are in danger. That means that even if the cat doesn't hunt it, the rat will avoid a household that keeps a cat. But without cats during the Middle Ages, rats commonly came into homes in order to search for food. In the process, more people became infected with the bubonic plague.

▶ **Middle Ages** a period in European history from the 5 CE to 1500 CE

▶ **gene** a unit that carries biological information

1. According to paragraph 1, which of the following is true of people in the Middle Ages?
 - (A) They were healthier than in previous societies.
 - (B) They thought that cats were sacred.
 - (C) Their beliefs changed because of the plague.
 - (D) They made much advancement in medicine.
2. Why does the author discuss fleas in paragraph 2?
 - (A) To show how the disease could have been prevented
 - (B) To explain how the disease was spread to humans
 - (C) To show how a theory about the disease was disproved
 - (D) To describe how people first thought the disease spread
3. According to paragraph 2; which of the following is NOT true of the illness?
 - (A) It was later termed the bubonic plague.
 - (B) It was discovered to be spread by rats.
 - (C) The plague took millions of lives in Europe.
 - (D) Cats spread the plague to fleas.
4. According to paragraph 3, which of the following is true of rats?
 - (A) They are naturally resistant to the bubonic plague.
 - (B) They are biologically programmed to fear cats.
 - (C) They can tell if a cat is near because they have good vision.
 - (D) They are more likely to visit a home where a cat lives.
5. According to the information in paragraph 3, which of these is a likely function of rat genes?
 - (A) Alerting rats to sources of danger
 - (B) Preventing the spread of the plague
 - (C) Helping rats find food sources
 - (D) Teaching rats to approach certain species
6. According to paragraph 3, which of the following is NOT true of households in the Middle Ages?
 - (A) They were vulnerable to rat infestation.
 - (B) They were difficult for rats to enter.
 - (C) They did not keep cats as pets.
 - (D) They did not have a way of keeping rats away.

02 Biology

Read the passage and answer the questions.

Track 27

Albinism and Leucism

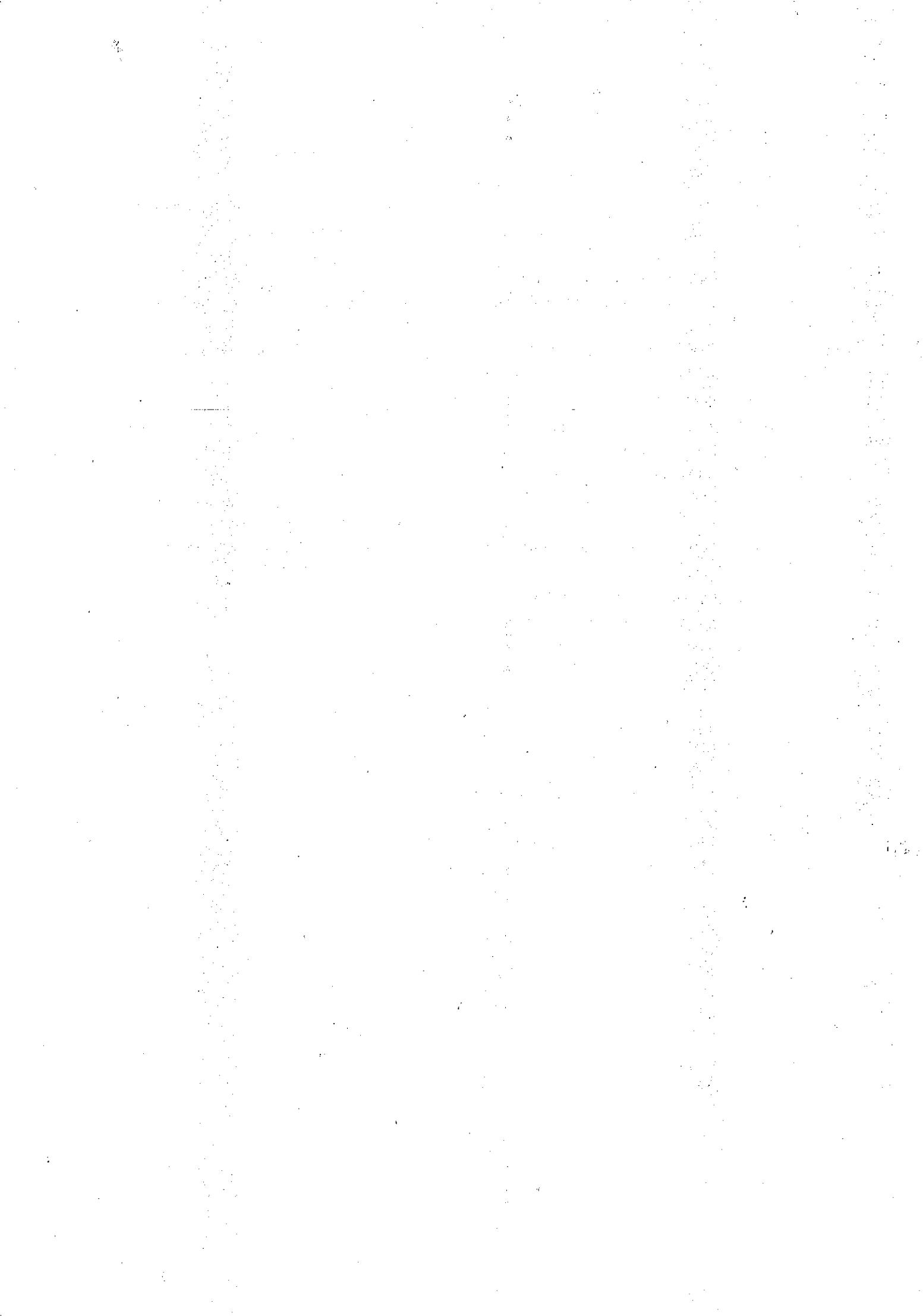
Albinism and leucism are conditions which result in the discoloration of hair, feathers, and fur. The disorders are more common in certain species. However, both conditions are rather rare. Both disorders appear outwardly similar, and few people would be able to say with any certainty whether an animal is afflicted with albinism or leucism. However, both conditions have been subject to scientific studies. Biologists have found several features that set each disorder apart.

One way that albinism and leucism are different is the origins of the condition. Both disorders are caused by a genetic mutation. The mutation that causes albinism causes cells to produce reduced amounts of a specific type of pigment called melanin. The lack of melanin in albinistic animals occurs over their entire bodies. Meanwhile, the genetic mutation that causes leucism is characterized by the lack of cells that produce all pigments. A leucistic animal's inability to create pigments may occur over the entire body. However, it often only affects parts of the body. This results in patches of colored fur mixed with white fur. This is often seen in cows and horses, as well as some types of reptiles.

Another difference between albinism and leucism is the effect each condition has on eye color. The color of one's eyes is determined by pigment production in a particular part of the eye. Albinistic animals are not able to produce the eye pigment. Therefore they have no color in the eyes. Instead, most albinistic animals have red eyes because the lack of color allows the red blood vessels in the eyes to show through. On the other hand, the eyes of leucistic animals are not affected by the genetic mutation that causes discoloration in the other parts of the body. Their eyes are able to produce the pigment on their own. As a result, leucistic animals have normal-colored eyes.

► **pigment** a material that provides color

1. According to paragraph 1, which of the following is true of albinistic and leucistic animals?
 - (A) They are found commonly in nature.
 - (B) They look nearly identical.
 - (C) Their skin often has unusual colors.
 - (D) Their skin color develops more slowly.
2. Which of the following can be inferred about an animal that is only missing color in some parts of its body?
 - (A) The colors will return over time.
 - (B) It has a form of albinism.
 - (C) The body produces some melanin.
 - (D) It cannot produce pigments.
3. According to paragraph 2, which of the following is NOT true of leucism?
 - (A) It is caused by a genetic mutation.
 - (B) It causes increased melanin production.
 - (C) It results in the lack of pigment.
 - (D) It can create patches of color.
4. According to paragraph 3, how does albinism affect eyes?
 - (A) The animal's vision worsens over time.
 - (B) The blood vessels in the eye become larger.
 - (C) The animal's eye color becomes brighter.
 - (D) Production of the eyes' pigments stops.
5. The author mentions red blood vessels in order to
 - (A) show how blood vessels stop red pigment production
 - (B) describe the cause of a genetic mutation in animals
 - (C) explain how blood vessels affect pigment production
 - (D) highlight the cause of an unusual eye coloration
6. According to paragraph 3, which of the following is NOT true of the eyes of leucistic animals?
 - (A) They can appear in many colors.
 - (B) They can produce pigment.
 - (C) They have white or red eyes.
 - (D) Their blood vessels cannot be seen.



Chapter 5

Vocabulary Questions

Necessary Skills

- Identifying the meaning of individual words and phrases as they are used in a specific reading passage
- Choosing the correct meaning of a word or phrase in order to understand its relevance within a passage

Example Questions

- The word _____ in the passage is closest in meaning to _____.
- In stating _____, the author means that _____.

Strategies

- Do not choose an answer only because it may be a correct meaning of the word or phrase; choose the meaning that is being used in the passage.
- Try rereading the sentence in which the vocabulary word appears, substituting the answer choices for the word.

01 Biology

Read the following passage. Then fill in the diagram with the information that you read.

Track 28

Animals of Madagascar

Madagascar is an island that lies 300 miles from the African mainland. It is home to 250,000 animals that cannot be found anywhere else in the world. The number of endemic species in Madagascar is surprising to scientists. They have come up with theories about why it is home to so many unique species.

Much of the evidence collected by scientists shows that the animals on the island evolved separately from those in the rest of Africa. When the island, which was once attached to India, drifted away, many animals became isolated on it. Fossil evidence shows that early animals on the island were the same as those found on the African continent. Over time, they adapted to their new environment. The adaptations led to the creation of new species.

Another theory suggests that unique animals appeared because of changes in the climate. Scientists noticed that some animals can only be found in some areas of Madagascar. They think the isolation is a result of a climate change that occurred on the island during the Tertiary Period. The lowlands, where most animals lived, became cold and dry. Meanwhile, the highlands became warm and humid. Many animals moved to the highlands. Those that remained in the lowlands evolved in order to survive.

mainland:

the large main part of a country not including any islands

endemic:

able to be found in only one place

adapt:

to change in order to fit a specific use or situation

Tertiary Period:

a period in history from 65 million to 1.8 million years ago

lowland:

an area of land that is lower than surrounding regions

Animals of Madagascar

Theory 1:



Support:

Theory 2:



Support:

1. The word **evolved** in the passage is closest in meaning to
 - (A) revealed
 - (B) swam
 - (C) changed
 - (D) lived

2. The word **isolated** in the passage is closest in meaning to
 - (A) trapped
 - (B) cut off
 - (C) different
 - (D) mixed together

3. The word **humid** in the passage is closest in meaning to
 - (A) fertile
 - (B) higher
 - (C) rainy
 - (D) moist

Fill in the blanks to complete the summary.

Madagascar, an island off the African _____, contains 250,000 species of animals. These animals are _____ to this area and surprising to scientists. Studies have shown that animals evolved uniquely to _____ to this island. Observations show that most animals lived in the cold and dry _____. Over periods of time, animals evolved and adapted to the environments in order to survive.

02 Sociology

Read the following passage. Then fill in the diagram with the information that you read.

Track 29

Positivism vs. Anti-positivism

A new field of study called sociology began during the late 19th century. Scientists were not sure how to study it. As a result, two philosophies appeared. Positivism and anti-positivism were created during the same period. Still, the philosophies are different in several ways.

Each has distinct views about whether sociology is a science or not. Positivists believe that sociology is just like other sciences. They view society as an extension of the natural world. For example, they believe that societies are able to evolve, just as animals do. They relate the progress of societies to the evolution of animals. Meanwhile, anti-positivists think that sociology is not a science. For them, society is separate from the natural world because it has features like cultural norms and traditions. Those traits are not found in nature.

Each philosophy is also different in its methods. Positivists believe that society can be studied the same way that other sciences are studied. They only value knowledge that can be proven. Therefore, they encourage the use of the scientific method. In the process, data is collected by conducting experiments. On the other hand, anti-positivists think the scientific method can't reveal anything about societies. Instead, they try to gather information based on observations and interviews.

sociology:
the study of societies

distinct:
clearly different from
something else

relate:
to find the connection
between two things

norm:
an accepted standard for
behavior

reveal:
to show or make known

Positivism vs. Anti-Positivism

Positivism	Both	Anti-Positivism
•	•	• •

- 9
1. The word **field** in the passage is closest in meaning to
(A) land
(B) kind
(C) subject
(D) book
 2. The word **extension** in the passage is closest in meaning to
(A) offer
(B) division
(C) example
(D) addition
 3. The word **encourage** in the passage is closest in meaning to
(A) support
(B) avoid
(C) comfort
(D) oppose

Fill in the blanks to complete the summary.

Two philosophies were created with _____ views regarding the field of sociology. Positivists regard sociology as a science and _____ societal progress to animals' evolution. Anti-positivism believes the _____ and traditions of society are not found in nature. The anti-positivists believe that scientific methods do not _____ anything about societies. Positivists collect data and conduct experiments and, anti-positivists gather information through observation.

03 Economics

Read the following passage. Then fill in the diagram with the information that you read.

Track 30

Herd Behavior

In economics, herd behavior refers to a phenomenon in which people follow the lead of others when making financial decisions. As a result, many people make the same choice at the same time. Economists think that herd behavior is driven by the confidence people place on the decisions made by a group. This theory is supported by several pieces of evidence.

One example that shows that people have more faith in group decisions can be seen in the case of a book called *The Discipline of Market Leaders*. The book didn't receive good reviews; in fact, it was widely criticized as being terrible. Yet, it was named a bestseller by a popular newspaper. It achieved that status because the authors themselves bought 50,000 copies when it was first released in stores. They did it in order to make the book popular. Following the book's placement on the bestseller list, many more copies were sold. In fact, the book remained a bestseller for some time afterwards. Its continued success shows that people were willing to buy a mediocre book based on the assumption that many others had already bought and enjoyed it.

Research also shows that people herd more often when they know the decisions of others. In one study, scientists monitored the behavior of investors over three years. They found that investors that had stocks in large companies herded often. Economists link the herding behavior to the availability of information about large companies. Such information is available so widely that many people would rather make a decision based on that information rather than their own knowledge. As a result, they often make the same decisions as these large companies.

financial:

relating to money

drive:

to cause to function

assumption:

the acceptance of something as true without proof

investors:

people who put money into a company for profit

Herd Behavior

Theory:

Support 1:

Support 2:

1. The word **confidence** in the passage is closest in meaning to
- (A) money
 - (B) research
 - (C) availability
 - (D) trust
2. The word **reviews** in the passage is closest in meaning to
- (A) award
 - (B) critique
 - (C) revision
 - (D) funding
3. The word **mediocre** in the passage is closest in meaning to
- (A) expensive
 - (B) ordinary
 - (C) unpopular
 - (D) used

Fill in the blanks to complete the summary.

People often follow the lead of others when they make _____ decisions.

Many do not have the individual _____ to make informed financial decisions. The

_____ is that group decisions are better than chancing individual decisions. People tend to buy a book only after it is a _____. People following the lead of others have been labeled as displaying herd behavior.

04 Environmental Science

Read the following passage. Then fill in the diagram with the information that you read.

Track 31

Causes of Land Subsidence

Land subsidence is the downward shifting of the ground. The gradual sinking of the earth can result in millions of dollars worth of damages to roads and property. According to some reports, every state in the United States suffers from land subsidence to some degree. Although sometimes land can sink because of natural causes, the two most common reasons for land subsidence are caused by humans.

Humans encourage land subsidence by pumping groundwater. According to some estimates, 80 percent of all land subsidence in the world is caused by the extraction of water from underground sources, such as aquifers. When the water is pumped from under the surface of the earth, the ground above the well becomes weak. The loss of support from the water beneath it also causes the soil to become more compact. Thus, the soil takes up less space. Since the volume of the soil decreases, the ground shifts downward. In Mexico City, for example, the pumping of groundwater has had a dramatic effect on the ground level. Pumping has caused the ground to sink at least thirty feet over the past century.

Certain types of mining also cause land subsidence. Mining is the practice of digging into the Earth in order to extract minerals or metals. Before miners can reach the minerals, they must dig long shafts. In the process of digging the shafts, large chunks of ground are removed from the Earth. The shafts tunnel deep into the ground. For example, the longest mine shafts in the world are over two miles long. The creation of mines leaves large, empty pockets of space underground. Eventually, the ground above the pockets is not able to support itself. Engineers can help support the ground by refilling mines with concrete or sand after it is used. However, sometimes, the tunnels are simply abandoned. Without proper design, mining induces sinking in the ground directly over the area where the mine is built. It causes the surface to tilt and curve. This can be very costly if it affects buildings or infrastructure.

groundwater:
water stored underground

extraction:
the act of removing
something

aquifer:
a layer of underground rock
that holds water

shaft:
a long, vertical passage
through the ground

tunnel:
to dig a passage through
the Earth

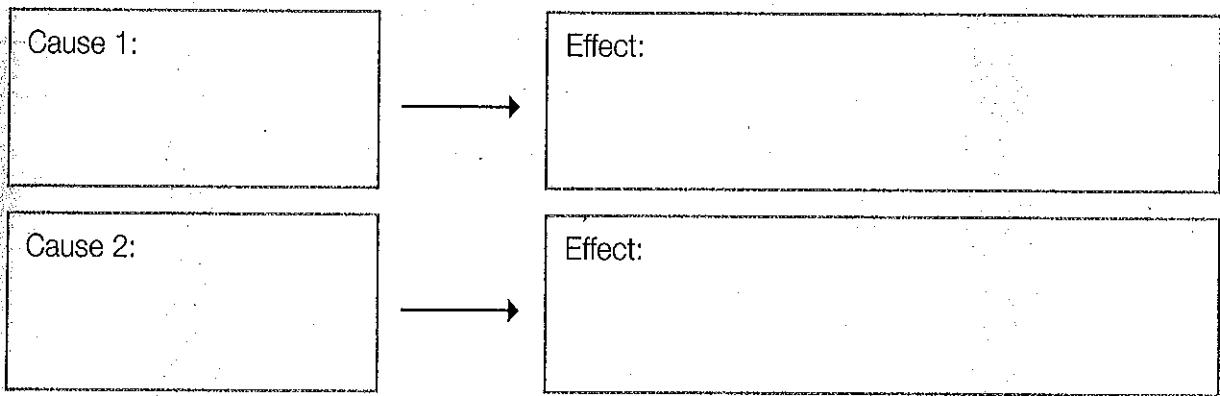
infrastructure:
basic services such as
roads or electricity

1.

2.

Fill

Land Subsidence



1. The word **gradual** in the passage is closest in meaning to
 - (A) small
 - (B) dramatic
 - (C) slow
 - (D) downward

2. The word **compact** in the passage is closest in meaning to
 - (A) weak
 - (B) packed
 - (C) heavy
 - (D) wet

3. The word **induces** in the passage is closest in meaning to
 - (A) checks
 - (B) stops
 - (C) reduces
 - (D) generates

Fill in the blanks to complete the summary.

Mining and the _____ of water from underground sources cause land subsidence. Digging long _____ eventually causes the loss of large chunks of earth. The shafts _____ deep into the ground and can run two miles long. The sinking of the land may cause future problems with the _____. The pumping of groundwater has caused Mexico City to sink thirty feet.

05 Zoology

Read the following passage. Then fill in the diagram with the information that you read.

Track 32

Butterfly Defense Strategies

Butterflies are insects that attract attention around the world because of their colorful wings. There are about 17,500 different species of butterflies in the world. As beautiful as they are, they still face many of the dangers that other insects do. They are often targeted as food for larger animals, especially birds. For this reason, butterflies have developed certain strategies in order to help protect themselves from predators.

The colors and markings found on the wings of butterflies are important to the insect's defense. In some cases, the colors can help the butterfly camouflage itself, making it invisible to predators. For example, the Australian Leafwing butterfly resembles a dead leaf when it stands still. The Evening Brown butterfly is also able to imitate dead leaves when it is still. Camouflaging helps the butterfly vanish into its surroundings. Since the bird cannot see it, it leaves it alone. Other times, the colors can also trick predators into thinking that the butterfly is a different animal altogether. Some butterflies have large dark spots on their wings. To animals, these spots can be confused for eyes. Thinking that they might have disturbed a larger animal such as a snake, the predator will then retreat.

Butterflies also use chemicals in order to defend themselves. Some butterflies are able to produce toxins. The toxins are poisonous to bugs and other predators. Other butterflies cannot produce the toxins themselves. Instead, they get the poison from plants. One type of butterfly that does this is the Wanderer butterfly. By eating a milkweed plant, it is able to store the toxin in its wings. Then, if a bird tries to eat it, the poison will make it vomit. Afterward the bird will usually remember not to try to eat that type of butterfly again. However, none of the chemical attacks are as startling as that of the Tiger moth. When threatened, the Tiger moth produces a foamy poison that comes out of the sides of its head. To add to the effect, the poison produces a sizzling sound as it comes out.

target:

to aim for

predator:

an animal that hunts and eats smaller animals

vanish:

to disappear or go away

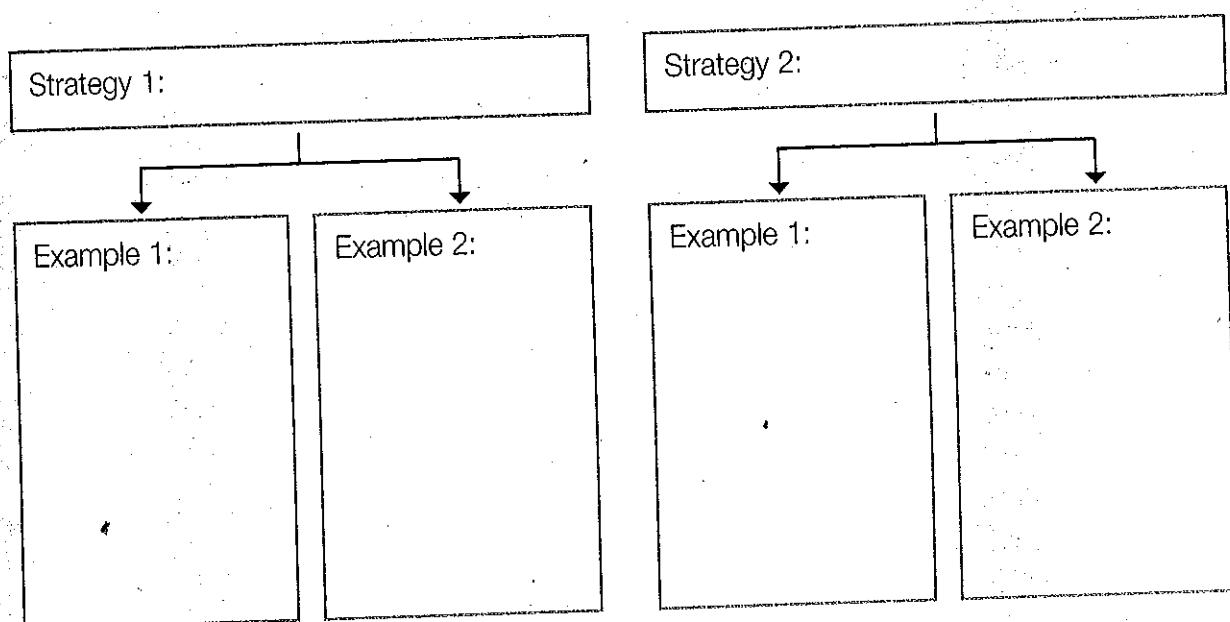
retreat:

to withdraw and not do something

toxin:

a substance that is poisonous

Butterfly Defense Strategies



1. The word camouflage in the passage is closest in meaning to
 - (A) paint
 - (B) hide
 - (C) protect
 - (D) cover

2. The word resembles in the passage is closest in meaning to
 - (A) hides
 - (B) looks like
 - (C) dresses
 - (D) goes toward

3. The word startling in the passage is closest in meaning to
 - (A) clumsy
 - (B) threatening
 - (C) slow
 - (D) surprising

Fill in the blanks to complete the summary.

Butterflies are colorful and attract attention, becoming a _____ for animals and birds. The butterflies' defense from _____ range from camouflage to producing various toxins. One method of camouflage enables the butterfly to _____ into its surroundings. Some have wing spots that resemble snake eyes, causing predators to _____. Others can produce toxins that are poisonous to bugs and other predators.

06 Literature

Read the following passage. Then fill in the diagram with the information that you read.

Track 33

Augustan Literature

Literature that is written within the same span of time is grouped into categories called literary periods. Augustan literature is a period in English literature. It includes all of the novels, essays, and poems written between 1700 and 1740. The period gets its name from Augustus Caesar. It was named after the ancient Roman emperor because the king of England at the time wanted to emulate him. However, it is appropriate because the literature of the period also shared many characteristics with that written during Augustus's reign.

One example of Classical influence on Augustan literature is the use of satire, which was employed frequently in Classical literature. Satire uses sarcasm and is usually humorous. Nonetheless, the function of it is to censure or mock someone. Ironically, in ancient Rome, writers used it to criticize the policies of Augustus. In Augustan literature, satires were very popular. Augustan writers like Tom Brown and Jonathan Swift wrote many poems and stories that were satirical. One of the most famous satires written during the period was Swift's *The Battle of the Books*. In the story, the books in a library come to life and begin to fight with each other. The books were trying to settle arguments between modern and ancient intellectuals. Modern intellectuals claimed that their knowledge had surpassed that of the ancients. The story is meant to make fun of intellectuals who take themselves too seriously. Swift criticizes them for being too prideful. He thinks it is disrespectful for them to believe that the work of ancients is inferior.

Another Classical influence on Augustan literature is observed in poetry. Greek poets used a specific kind of rhythm in their poetry. In English, the rhythm is called "heroic verse." The Greek poet Homer wrote the famous epic poem *Odyssey* using this rhythm scheme. During the Augustan period, poets began to use heroic verse once again in their work. In fact, the most well-known poet of the time, Alexander Pope, was an expert of using the rhythm. He used it when writing some of his most famous poems, including *The Dunciad*.

Classical:

relating to ancient Greece or Rome; especially the culture and traditions

sarcasm:

an expression where the speaker means the opposite of what is said

intellectual:

a highly educated person

inferior:

of lesser quality

epic:

relating to poems that tell of ancient people, gods, and long and difficult events

2.

Fill

a

Augustan Literature

Definition:



Classical Influence 1:



Example:



Classical Influence 2:



Example:

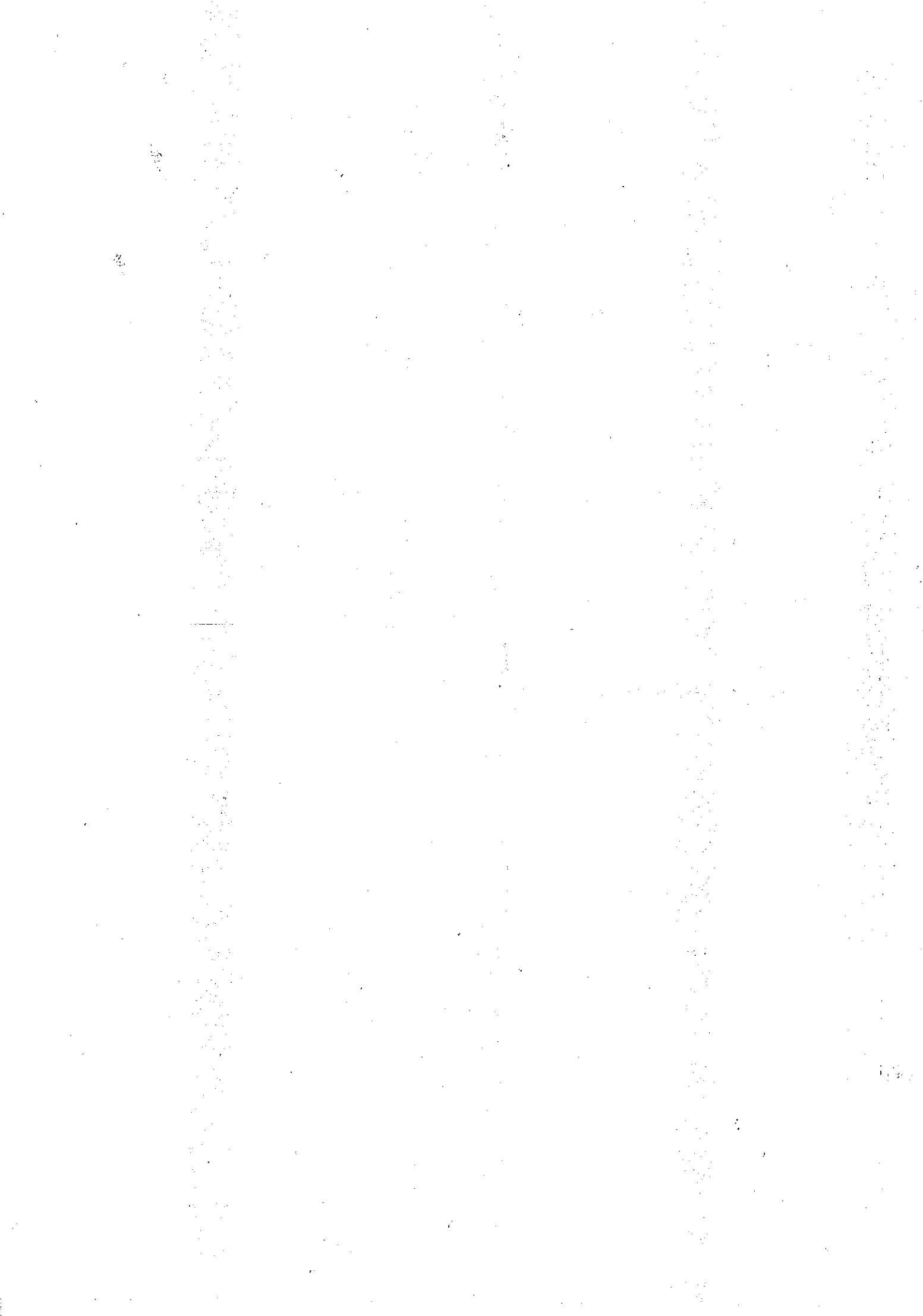
1. The word **emulate** in the passage is closest in meaning to
 - (A) admire
 - (B) conquer
 - (C) imitate
 - (D) undo

2. The word **censure** in the passage is closest in meaning to
 - (A) criticize
 - (B) praise
 - (C) block
 - (D) silence

3. The word **scheme** in the passage is closest in meaning to
 - (A) method
 - (B) sound
 - (C) plan
 - (D) influence

Fill in the blanks to complete the summary.

Authors frequently used _____ to criticize the policies of rulers. During the Augustan period, books mocked the _____ for being too prideful. Modern intellects believed ancient works were _____ to the Classical style of that time. One of the most notable _____ poems using "heroic voice" is Homer's *Odyssey*. The Augustan literary period included novels, books of satire, essays, and poetry.



Chapter 6

Reference Questions

Necessary Skills

- Identifying the relationships between pronouns and their referents in a passage
- Determining to which person, place, or thing a pronoun refers in the context of a passage

Example Questions

- The word _____ in the passage refers to

Strategies

- Ensure that your answer choice matches the same number (singular or plural) and the person (first, second, third) as the pronoun being asked about.
- Try substituting your answer choice for the pronoun in the passage to see if your choice is sensible.
- Since there is often more than one answer choice that may seem correct, read the sentences around the pronoun's sentence carefully to ensure you choose correctly.
- Remember that the grammatical referent for a pronoun may appear in a preceding clause or sentence.

01 Biology

Read the following passage. Then fill in the diagram with the information that you read.

Track 34

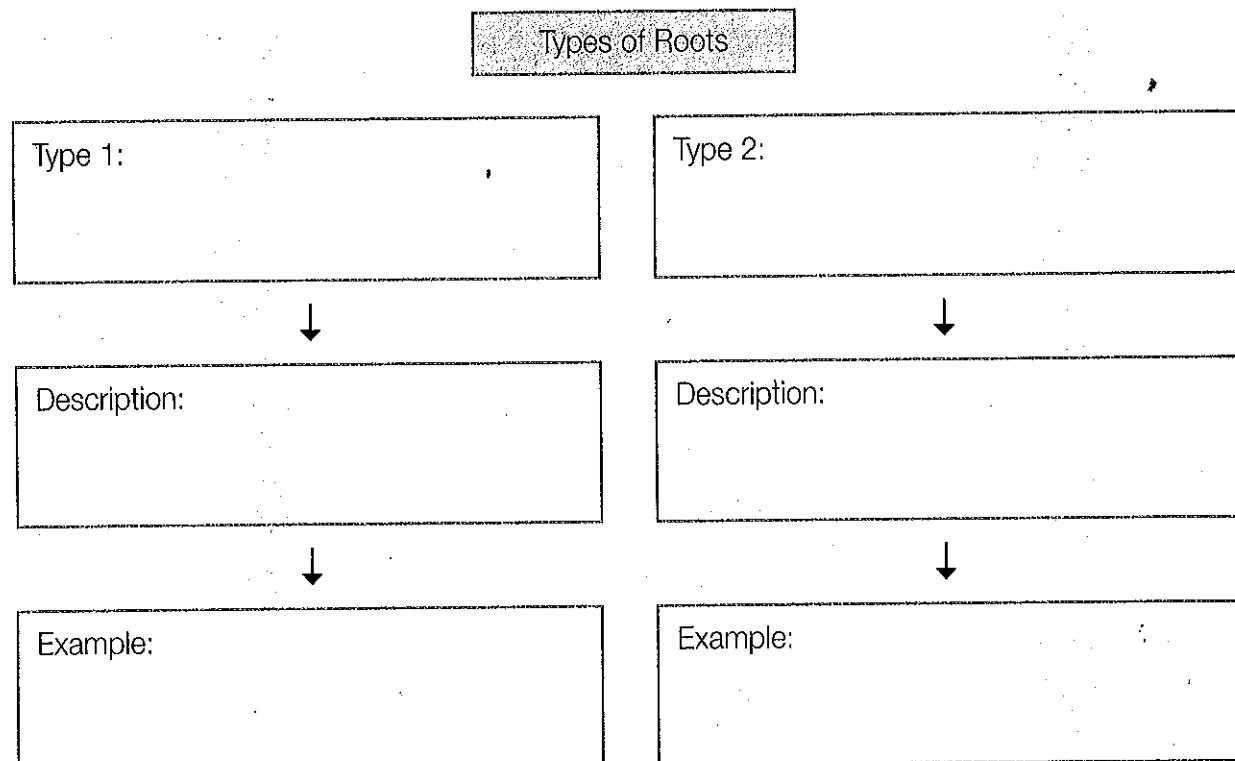
Types of Roots

Most people forget that there are extensive root systems in the soil beneath their favorite plants. A plant's roots serve a number of important purposes; the function of a root depends on what type it is. Two common types of root systems include taproots and diffuse roots.

A taproot is an elongated root that grows downward from the main part. Vertical growth takes place at the center from which the secondary roots of the plant sprout. Taproots help plants by storing food for them to use later. They grow deep into the earth, which is why it's difficult to remove plants that have taproots, such as dandelions. Though the top part of the plant can be pulled out, there is usually a length of root that remains under the ground.

Diffuse roots are another type of root system that has many thin and short roots growing from the base of the plant. The main function of diffuse roots is to anchor the plant to the ground and help it resist getting blown away. On average, the roots grow at the same rate, which means that none of the parts of roots are bigger or thicker than other parts. There are many examples of plants with diffuse root systems, including marigolds, grass, and white clovers.

- extensive:**
covering a large area
- elongated:**
longer than normal
- sprout:**
a new growth from a seed; to develop or grow new parts
- secondary roots:**
minor roots that grow from a main root system
- anchor:**
to fasten or hold



- 4
1. The word it in paragraph 1 refers to
 - (A) plant
 - (B) function
 - (C) root
 - (D) type
 2. The word which in the passage refers to
 - (A) taproot
 - (B) root
 - (C) vertical growth
 - (D) center
 3. The word it in paragraph 3 refers to
 - (A) base
 - (B) function
 - (C) plant
 - (D) ground

Fill in the blanks to complete the summary.

The passage discusses two types of _____ root systems found in the soil. The first kind is a taproot which is an _____ root. Many _____ grow or _____ from it. The second root type is a diffuse root system where many thinner, shorter roots grow at a similar rate. The main function of these roots is to anchor plants so they don't blow away.

02 Geology

Read the following passage. Then fill in the diagram with the information that you read.

Track 35

The Origins of Iron

Iron (Fe on the periodic table) is created through a long process that takes place in the center of stars. When a star reaches the end of its life cycle, it explodes, and the iron is released. The metal can be found in places all over the Earth, but scientists aren't sure exactly how it got here. They have come up with two separate theories to explain how iron showed up on the planet.

People from various ancient cultures, including the Egyptians and Greeks, believed that iron fell from the heavens in the form of meteorites. In fact, one ancient word for iron, "anbar," means "fire and sky." Some scientists agree with this early theory. They have found that iron is a material in some of the meteorites found on Earth. However, meteoric iron is rare and is mostly found in museums today.

Others think that iron was deposited onto the planet while it was still forming. Billions of years ago, a neighboring star exploded and shot out hot gases onto it. The gases turned into iron when they cooled. As the Earth continued to form, the iron sunk to the center of the planet. Scientists explain that, as a result, large amounts of it are found in the Earth's core.

heavens:

the sky

meteorite:

a part of a meteor that lands on Earth

meteoric:

relating to a meteorite

deposit:

to leave something in a place

neighboring:

nearby

Theory 1:

The Origins of Iron

Support:

Theory 2:

Support:

1. The word **it** in paragraph 1 refers to
 - (A) star
 - (B) life cycle
 - (C) metal
 - (D) Earth

2. The word **others** in the passage refers to
 - (A) Greeks
 - (B) scientists
 - (C) meteorites
 - (D) museums

3. The word **it** in paragraph 3 refers to
 - (A) Earth
 - (B) iron
 - (C) center
 - (D) result

Fill in the blanks to complete the summary.

The passage is about the origins of iron and theories about why we find it on Earth. Ancient people like Greeks and Egyptians thought iron had fallen from the _____. They thought _____ full of iron had fallen from the sky. The truth is that meteoric iron is rare and usually found in museums. Other people think iron was _____ here when a _____ star exploded. They think gases from the star shot onto Earth, sunk into its center, and formed iron.

03 Advertising

Read the following passage. Then fill in the diagram with the information that you read.

Track 36

Liberation Marketing

During the 1990s, a new strategy called liberation marketing was created. Liberation marketing attempted to reverse the feeling of many consumers who felt that advertisements were degrading. Many advertisements seemed to treat average consumers as if they were stupid.

Unlike previous strategies, liberation marketing focuses not on ideals but rather on the qualities possessed by the masses. It embraces people's flaws instead of expecting a consumer to believe that every person is perfect. For example, previous advertising models focused on the notion of ideal beauty: a type of beauty that very few possess. One modern advertisement for soap reversed this strategy. It features a picture of a normal woman, not a model. The headline above the picture says, "There are 3 billion women who don't look like supermodels and only eight who do." The slogan implies that people should not try to look like supermodels. They should be happy with themselves. Yet, at the same time, the advertisement promotes the company's product.

In addition, liberation marketing focuses on the individuality possessed by all people. Previous concepts of advertising treated people like mindless masses watching television. One of the most famous instances of this comes from a commercial for a computer in the 1980s. It literally depicted the mindless masses; the commercial began with hundreds of people watching a giant screen. At one point, a woman runs from the back of the room, destroying the screen with a huge hammer. A line of text then describes how the company's new computer will free people from the sameness depicted in the commercial.

masses:
ordinary people; people in general

embrace:
to completely accept something

slogan:
a short phrase used to advertise something

mindless:
unintelligent; not tending to think about one's actions

Liberation Marketing

Point 1:

Point 2:

Description:

Description:

Example:

Example:

1. The word it in paragraph 2 refers to
 - (A) type of beauty
 - (B) advertisement
 - (C) soap
 - (D) strategy

2. The word they in the passage refers to
 - (A) expectations
 - (B) women
 - (C) people
 - (D) supermodels

3. The word it in paragraph 3 refers to
 - (A) advertising
 - (B) television
 - (C) commercial
 - (D) computer

Fill in the blanks to complete the summary.

This passage is about a kind of marketing from the 1990s called "liberation marketing."

The idea was to focus on the qualities of the _____. That meant seeing people as they really were instead of trying to make everyone perfect. It _____ the flaws of everyday people. Instead of treating people as _____, it made everyone feel special. The _____ of these advertisements made people feel that they didn't have to reach an ideal.

04 History

Read the following passage. Then fill in the diagram with the information that you read.

Track 37

The Byzantine Empire Under Justinian

The Byzantine Empire was a term used to refer to the eastern portion of the Roman Empire. In the early 500s, the Byzantine Empire approached ruin several times. It was frequently targeted by northern invaders. The empire could only appease the armies by giving them large sums of money. Additionally, the young empire suffered from a lack of organization. It seemed that all of the previous magnificence of the empire had disappeared until Emperor Justinian took the throne in 527 ACE. Under his rule, the Byzantine Empire improved in several ways.

Justinian helped his people by recovering the lands that had once been part of the Roman Empire, many of which had fallen into the hands of invaders from the north. Justinian was tired of paying off the invaders in order to keep them at bay. He decided it was time to recover the lands. With the help of General Belisarius, the areas in Northern Africa were quickly taken back in 533. In 536, Justinian sent Belisarius to fight in Italy. Though outnumbered in battle, the general was victorious. During his reign, Justinian was also successful in conquering Spain again.

The Byzantine Empire also benefited under Justinian after he ordered that the multiple collections of Roman laws be analyzed and reorganized. Starting in 528, scholars began to study these laws. Their tasks were not easy. Some of the laws were over 400 years old. They discarded laws that no longer applied. They also updated laws that contradicted earlier laws. In total, they spent six years reorganizing the legal system. When they finished, the new laws were presented in a series of books called the Code of Justinian. The code made it easier for justice to be served in the empire.

invader:

a person or group of people that enters a land to conquer it

appease:

to cause someone to be calm or satisfied

magnificence:

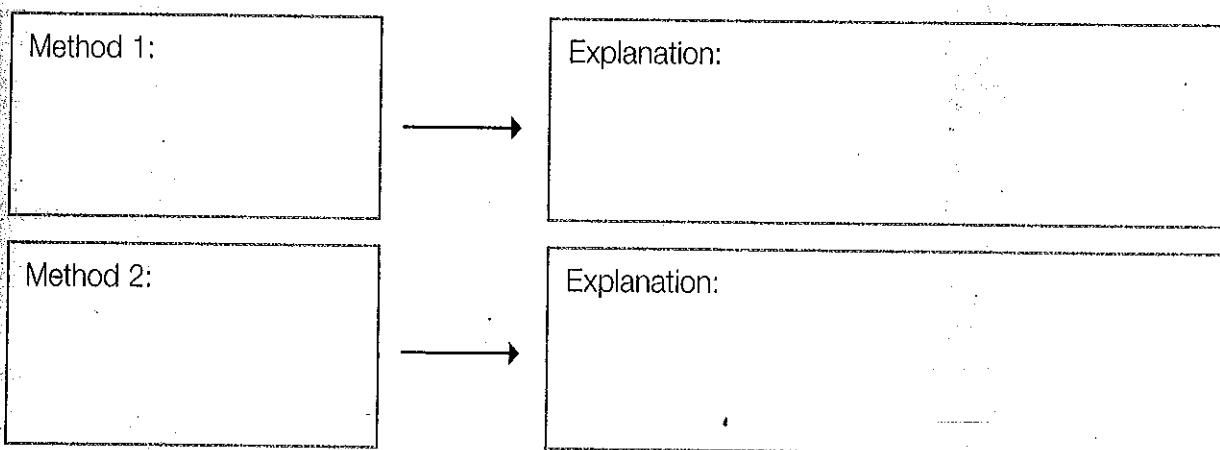
beauty or high reputation

keep (something) at bay:
to stop something from doing harm

reign:

a period of time in which a person is king or queen

The Byzantine Empire Under Justinian



1. The word them in paragraph 1 refers to
 - (A) early 500s
 - (B) times
 - (C) northern invaders
 - (D) armies
2. The word them in paragraph 2 refers to.
 - (A) people
 - (B) lands
 - (C) hands
 - (D) invaders
3. The word they in paragraph 3 refers to
 - (A) collections
 - (B) scholars
 - (C) tasks
 - (D) laws

Fill in the blanks to complete the summary.

The passage discusses the changes to the Byzantine Empire during Emperor Justinian's reign. Before him, this eastern part of the Roman Empire had many problems. Northern _____ often demanded large sums of money in order to be _____. Areas of land were lost to them, and the empire lost its _____. Under Justinian, this changed. He was tired of paying the people from the north to _____. General Belisarius helped him win back land in Spain, Italy, and other places.

Read the following passage. Then fill in the diagram with the information that you read.

Track 38

Pollution in the Amazon

In recent years, people have become aware of the negative consequences of pollution. In response to the associated problems, many companies have adopted new policies in order to help protect the environment. Automobile manufacturers have improved car design to decrease emissions of harmful gases. Furthermore, many companies have begun to look for other sources of energy. They no longer want to burn coal for energy. However, some scientists have recently suggested that clean air can actually have more negative consequences than pollutants. They think that reduced pollution in North America can set a series of events into motion that would ultimately kill the Amazon rainforest.

The reduction of emissions from burning coal affects temperatures. Most of the gases released when coal is burned are harmful to the environment. However, burning coal produces a gas that is important in controlling the temperature on the Earth. When it is burned, sulphate aerosol is released. Sulphate aerosol remains in the lower part of the atmosphere. It reflects heat energy from the sun onto nearby clouds. Clouds become brighter from the reflected sun rays. More importantly, the surface temperatures in areas with sulphate aerosol are cooler than areas without sulphate aerosol. In the past, the presence of sulphate aerosol in North America kept the surface from becoming too warm. This included the bodies of water near the continent, such as the Atlantic Ocean. Without sulphate aerosol, however, surface temperatures are rapidly changing.

The shift of water temperature affects weather patterns. Rain tends to form over bodies of warm water. The reduction of sulphate aerosol emissions has changed the temperature of the water in the North Atlantic Ocean. Without the gas, the sun's rays hit the water directly instead of being bounced off to the clouds. As the water in the North Atlantic Ocean begins to heat up, rain falls farther north than it did in the past. Meanwhile, the areas near the Amazon receive less rainfall. The change in climate is fatal to the rainforest. In 2005, a severe drought struck the Amazon rainforest. Scientists believe that the drought was caused by reduced emissions in North America. Rather than raining in the Amazon, the rain moved farther north. Scientists fear that if the pattern of warming were to continue, large portions of the Amazon could be drought-stricken. They project that by 2060 the rainforest could dry up completely.

ultimately:

in the end

Amazon rainforest:

an area in South America with large, green trees and a moist climate

shift:

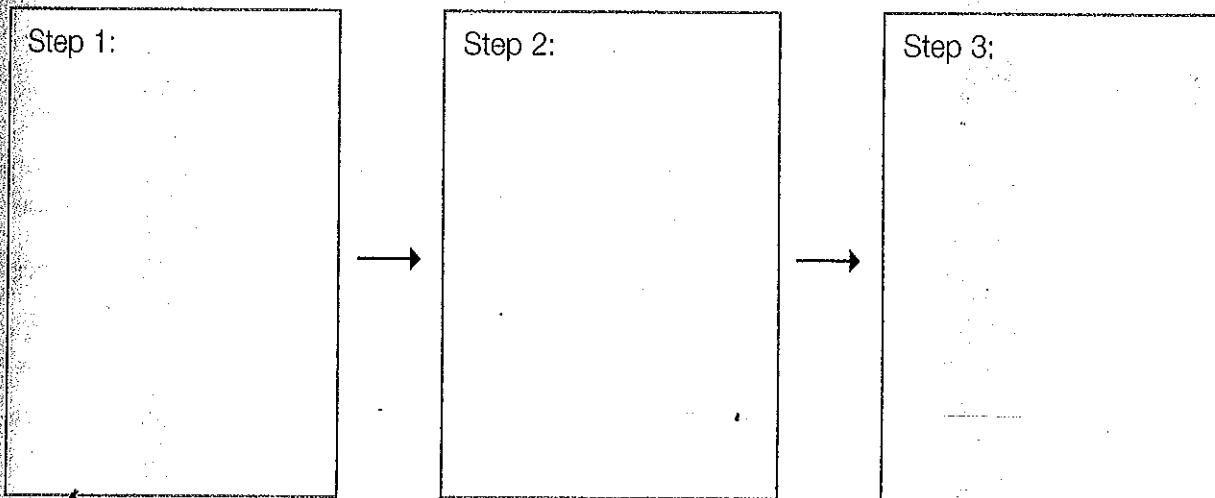
a change

fatal:

having very serious effects; causing death

project:

to calculate an event in the future from information that is known

Pollution in the Amazon

1. The word they in paragraph 1 refers to
 - (A) companies
 - (B) scientists
 - (C) consequences
 - (D) pollutants
2. The word it in paragraph 2 refers to
 - (A) environment
 - (B) coal
 - (C) gas
 - (D) Earth
3. The word it in paragraph 3 refers to
 - (A) temperature
 - (B) water
 - (C) ocean
 - (D) rain

Fill in the blanks to complete the summary.

The passage claims that burning less coal may be bad for the _____. Burning coal releases a gas that helps control temperatures because it cools the surface of the Earth. Since less coal is burned these days, there has been a _____ of temperatures. Weather has also changed, and less rain falls in the Amazon. This could be _____ and the rainforests may _____ die. Some scientists project that rainforests could be dried up by 2060.

06 Astronomy

Read the following passage. Then fill in the diagram with the information that you read.

Track 39

Ways to Detect White Dwarf Stars

Millions of stars dot the universe—some of which can be seen from the Earth. However, one type that can't easily be seen is a white dwarf star. White dwarfs are small stars that shine very dimly. In fact, some of them don't shine any brighter than a 100 watt bulb. White dwarfs emit a weak light because they have run out of material to burn. Since they are hard to see, it took scientists a long time to discover them. Since then, scientists have come up with different ways of seeing white dwarfs.

The first method involves monitoring other stars for anomalous behavior. Closer examination may show that the behavior is actually caused by a white dwarf. This method was how the first white dwarf was discovered. An astronomer in the 1800s observed a larger star moving back and forth slightly. He found that the movement resembled an orbit; however, the star did not appear to be orbiting anything. He suggested that, perhaps, the star was orbiting an invisible body. Then, almost twenty years later, another astronomer spotted this object in a telescope. Appearing only as a faint light, the object could not be identified. Years later, however, the large star was found to be near a white dwarf star, whose gravity pulled it slightly as it orbited the larger star. Researchers today still assume that a dwarf star is present when they see a larger star with abnormal movement.

Dwarf star detection has evolved since the 1800s. Today, white dwarfs can be observed with X-ray telescopes. Unlike typical telescopes that only magnify a person's view, X-ray telescopes can view types of light that are invisible to the human eye. They are effective in spotting white dwarfs because they don't try to spot the tiny object itself. Instead, they detect X-rays that come from inside of the white dwarf. White dwarfs contain massive quantities of heat that they release as X-rays, making them easy for an X-ray telescope to spot. During the 1990s, the X-ray telescope ROSAT, which is a satellite in orbit around the Earth, detected a white dwarf that had yet to be discovered using other methods.

dot:

to spread throughout an area

anomalous:

out of the ordinary; unusual

spot:

to see or notice something

X-ray:

a type of radiation that is invisible to the human eye

magnify:

to make larger

How To Spot a White Dwarf

Method 1:

Method 2:

Example:

Example:

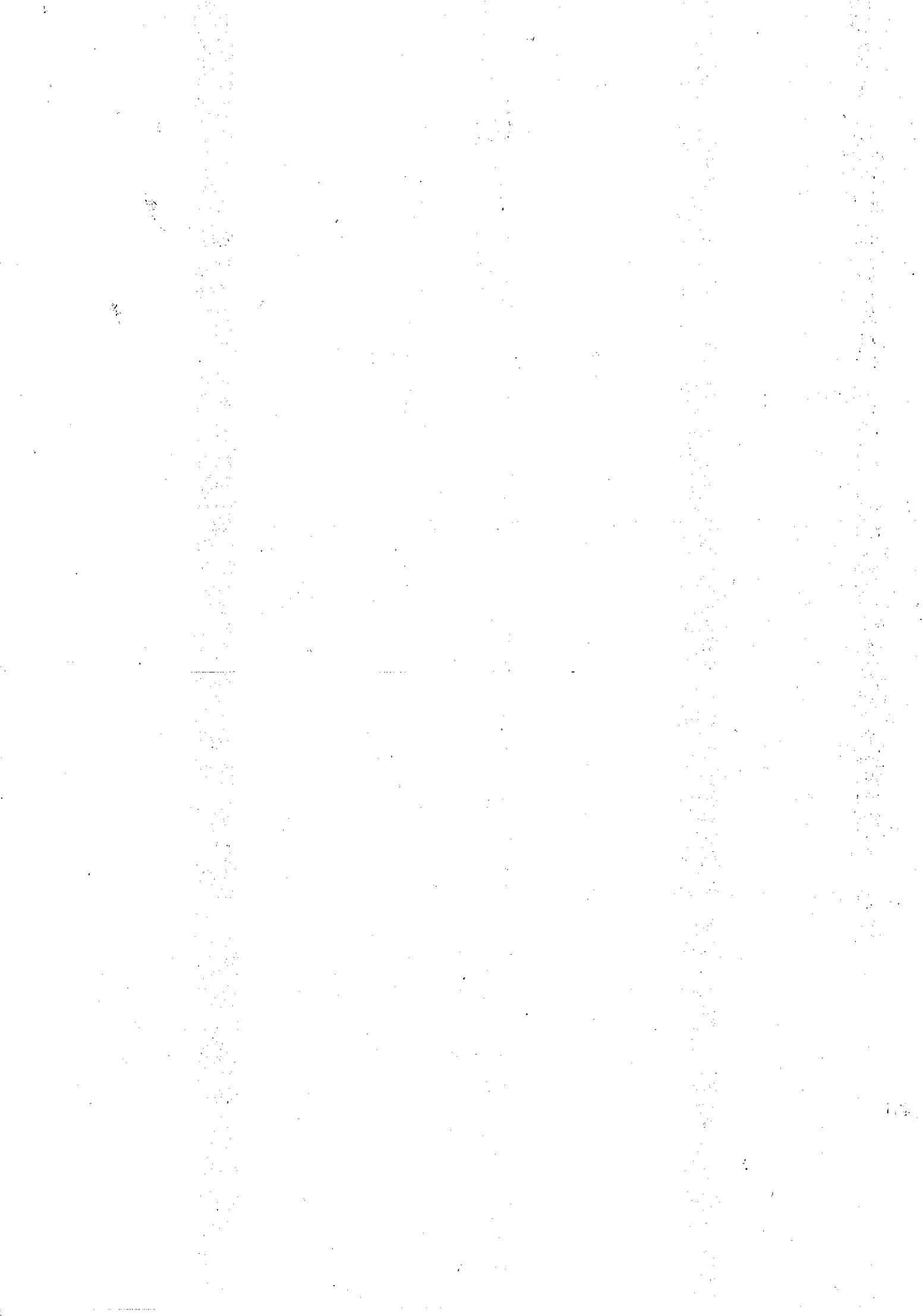
1. The phrase **this object** in paragraph 2 refers to
 - (A) white dwarf
 - (B) larger star
 - (C) invisible body
 - (D) astronomer

2. The word **it** in paragraph 2 refers to
 - (A) faint light
 - (B) large star
 - (C) white dwarf star
 - (D) gravity

3. The word **they** in paragraph 3 refers to
 - (A) white dwarfs
 - (B) X-ray telescopes
 - (C) typical telescopes
 - (D) types of light

Fill in the blanks to complete the summary.

The passage is about white dwarf stars which shine very dimly. While millions of stars _____ the universe, some are hard to see. White dwarf stars shine dimly because they have run out of material to burn. This makes them difficult to _____. Scientists first identified them through the _____ behavior of other stars. Now they use special telescopes that do two things that make such stars easier to find. They _____ view and detect X-rays coming from white dwarf stars.



Chapter 7

Sentence Simplification Questions

Necessary Skills

- Identifying the answer choice that has the same essential meaning as a highlighted sentence in a passage
- Eliminating answer choices that change the meaning in important ways or leave out essential information

Example Question

- Which of the following best expresses the essential information in the highlighted sentence? Incorrect answer choices change the meaning in important ways or leave out essential information.

Strategies

- Ensure that you understand the ways in which an answer can be incorrect. Either it contradicts a detail in the highlighted sentence, or it omits something important from the sentence.
- Be careful that your answer choice does not contradict the main argument of the paragraph in which the highlighted sentence occurs or the passage as a whole.

01 Fine Arts

Read the following passage. Then fill in the diagram with the information that you read.

Track 40

Art in African Cultures

Art has many roles in the daily lives of people from the past and present. It can be used to inspire and to provoke thought. Moreover, in many cultures, art was used to show who held political power. Several African cultures used art to indicate power.

Much of the artwork of the Ashanti people of West Africa was reserved for the exclusive use of leaders. Any artwork made of gold, such as jewelry, could only be used by the ruler. Additionally, the ruler had a special staff that was made of gold and wood. Gold was of particular importance to Ashanti art because it was the main source of wealth for the tribe, which, in turn, gave it much more trading power.

The Anang Ibibio peoples of the southwestern region of Nigeria also used art to demonstrate power. The tribe was not ruled by a single leader. Instead, the people were ruled by a council of men called Ekpo. Ekpo donned special masks when they enforced their laws. The masks, which were large and frightening, functioned as uniforms for the Ekpo; those who wore them were not seen as individuals but as representatives of the tribe.

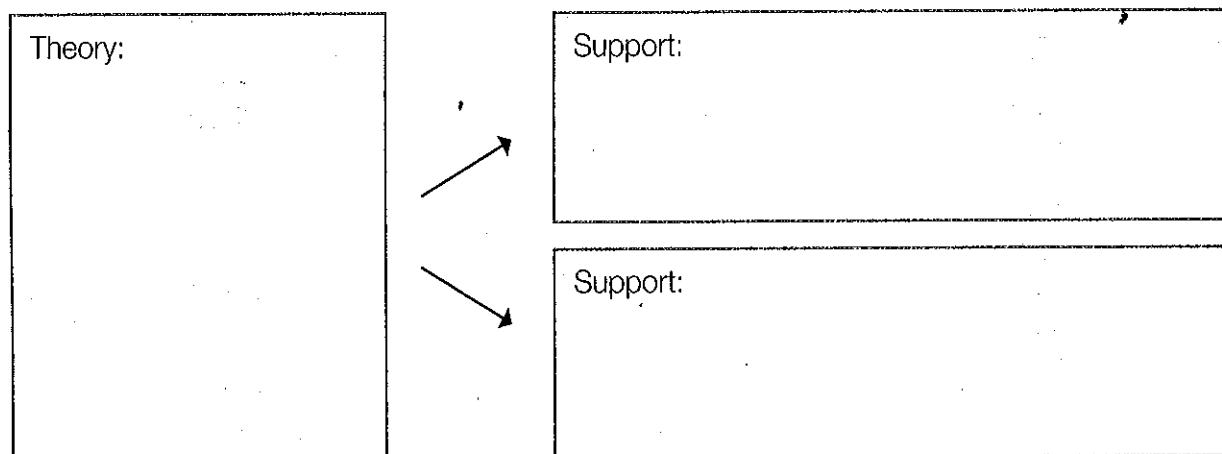
provoke:
to cause a reaction
reserved:
kept separate for a particular group of people

staff:
a rod that is carried by leaders as a symbol of authority

council:
a group that makes decisions and represents others

don:
to put on, especially clothing

Function of Art in African Cultures



40 1. Which of the following best expresses the essential information in the highlighted sentence in paragraph 2? Incorrect answer choices change the meaning in important ways or leave out essential information.

- (A) The Ashanti people were more powerful than other tribes because they thought that gold was important.
- (B) Tribes with the most gold had the most power in trade relationships, such as the Ashanti.
- (C) The Ashanti tribe became wealthy because they were powerful in global trade.
- (D) The Ashanti tribe valued gold as a source of their wealth and a symbol of power in trade.

2. Which of the following best expresses the essential information in the highlighted sentence in paragraph 3? Incorrect answer choices change the meaning in important ways or leave out essential information.

- (A) The Ekpo were required to use masks as part of their uniform for the group.
- (B) The masks were like uniforms because they showed that whoever wore them acted as a representative for the tribe.
- (C) The masks were made to look frightening in order to better function as uniforms for the Ekpo.
- (D) The Ekpo wore the large masks only when representing the tribe in front of members of other tribes.

Fill in the blanks to complete the summary.

This passage looks at how art has been used to show power in African culture. While art is often used to inspire people and _____ thought, it can be used to display political strength. The Ashanti people of West Africa _____ works of art for use by their leaders. Their ruler carried a special _____ made of gold and wood. In Nigeria, there are people ruled by a council of men called Ekpo. They _____ masks to show their power.

02 Environmental Science

Read the following passage. Then fill in the diagram with the information that you read.

Track 41

Advantages of Urban Forests

The size of many cities is increasing. In many places, the growth of cities has meant the destruction of forests; however, in others, planners have recognized the importance of maintaining nature. Many cities are home to urban forests, or collections of trees that grow within a city or near heavily populated areas. Urban forests provide a number of benefits.

Scientists have learned that urban forests can help reduce pollution in cities. Through a natural process, the leaves of a tree absorb harmful gases from the atmosphere. According to one study, a single tree can absorb about thirteen tons of carbon dioxide per year. Scientists have also found that trees are capable of removing many other pollutants that are believed to be responsible for global warming, such as carbon monoxide and ozone.

Urban forests are also beneficial to cities because they help regulate temperatures. The concrete used to construct buildings and sidewalks in cities soak up heat from the sun. It can be up to nine degrees warmer in cities than in nearby rural areas. However, trees help cool down urban areas by providing shade. During the winter, buildings are shielded from frigid blasts of air by trees. As a result, buildings do not become as cold.

populated:

containing people

pollutant:

a substance that makes something else dirty or harmful

regulate:

to adjust or control

shield:

to protect something

frigid:

extremely cold

Urban Forests

Definition:

Advantage 1:

Advantage 2:

1. Which of the following best expresses the essential information in the highlighted sentence in paragraph 1? Incorrect answer choices change the meaning in important ways or leave out essential information.
- (A) City planners can help reduce the destruction of forests by discouraging the growth of cities.
(B) Many city planners understand that nature is often harmed by construction within cities.
(C) Nature is recognized as an important factor in the growth and maintenance of cities.
(D) Destruction of forests can be stopped in cities by city planners.
2. Which of the following best expresses the essential information in the highlighted sentence in paragraph 2? Incorrect answer choices change the meaning in important ways or leave out essential information.
- (A) Trees can affect the levels of carbon monoxide in an area, leading to global warming.
(B) Trees are able to remove carbon monoxide and ozone from the atmospheres but are responsible for global warming.
(C) Scientists think that trees can be used to find a link between pollutants and global warming.
(D) Trees can be used to reduce global warming by reducing harmful pollutants from the atmosphere.

Fill in the blanks to complete the summary.

The passage looks at the advantages of having urban forests in cities. Urban forests are large groups of trees that grow in cities. Having these trees in _____ areas can do a lot of good for the environment. Trees remove harmful _____ such as carbon dioxide from the air. They also help to _____ temperatures in cities. Trees provide shade in summer, and in winter, they shield buildings from _____ blasts of cold air.

03 History

Read the following passage. Then fill in the diagram with the information that you read.

Track 42

Mount Toba Eruption

Volcanic eruptions have been relatively common in the Earth's history. Between 70,000 and 75,000 years ago, the Earth was shaken by the eruption of Mount Toba, which is located on the island of Sumatra. The blast was 3,000 times more powerful than the explosion of Mount St. Helens. It was the most violent eruption in the recent history of the Earth. The eruption had many lasting effects on Earth; in fact, some scientists believe that it almost led to the extinction of the human population.

Ice sheets have been an important source of information about the event. The ice sheets have been around for millions of years. By studying them, scientists know that a climate change occurred around the time of the eruption. They believe the change was spurred by ash that was released from the volcano. The ash formed a blanket over much of the surface of the Earth. The blanket of ash made it difficult for the sun to heat the planet. As a result, temperatures decreased by five degrees Celsius around the world for several years. The drastic change made most parts of the world impossible for humans to live in.

The theory of massive climate change is also supported by genetic evidence. By studying human genes, scientists can learn about changes in the population. Gene studies have revealed that all of the humans in the world today descended from about 10,000 breeding pairs, or 20,000 people. The small number indicates that humans experienced a population bottleneck—an event in which a large percentage of a species is killed.

Mount St. Helens:
a volcano located in the state of Washington, USA

extinction:
the state of not existing anymore

ice sheet:
the large area of ice covering the North and South Poles

spur:
to encourage or bring about

drastic:
extreme or noticeable

descend:
to develop from something that existed before

Toba Catastrophe Theory

Theory:

Support 1:



Support 2:

Fill

1. Which of the following best expresses the essential information in the first highlighted sentence in paragraph 1? Incorrect answer choices change the meaning in important ways or leave out essential information.
- A volcano on the island of Sumatra, erupted between 70,000 and 75,000 years ago.
 - The explosion on Mount Toba occurred 75,000 years ago and then again 70,000 years ago.
 - The eruption of Mount Toba led to the creation of the island of Sumatra between 70,000 and 75,000 years ago.
 - A volcanic eruption on Earth 70,000 years ago had many consequences for Mount Toba.
2. Which of the following best expresses the essential information in the second highlighted sentence in paragraph 1? Incorrect answer choices change the meaning in important ways or leave out essential information.
- The last eruption on Earth almost resulted in the extinction of humans.
 - Scientists think that the eruption affected humans in ways that lasted for a long time.
3. Which of the following best expresses the essential information in the highlighted sentence in paragraph 3? Incorrect answer choices change the meaning in important ways or leave out essential information.
- A population bottleneck is when many people are killed in an event.
 - The population bottleneck occurred because there were small numbers of humans.
 - Scientists examine population bottlenecks to determine when populations change.
 - The amount of breeding pairs show that many humans were killed in an event called a population bottleneck.

Fill in the blanks to complete the summary.

A volcanic eruption almost led to the _____ of humans. Scientists study _____ to find information about this. Between 70,000 and 75,000 years ago, Mount Toba erupted, and this _____ many changes. Earth got much colder because the volcano's ash stopped sunlight from getting in. This change was so _____ in many places that humans could not live there. The fact that today's humans descended from about 20,000 people supports this theory.

Read the following passage. Then fill in the diagram with the information that you read.

Track 43

The Advantages of Nuclear Power

During the 1970s, the world demand for oil exceeded the limited supply of the substance. Consequently, the world experienced a fuel crisis. In response, many countries began to use nuclear power. The development and use of nuclear power during that time was met with much controversy; however, scientists have found that there are many advantages of nuclear power.

Unlike fossil fuels, nuclear power does not contribute to air pollution. The problem of air pollution is not to be underestimated. Contaminants in the air can cause damage to buildings. More importantly, air pollution is known to cause a variety of illnesses in humans. The main culprit of air pollution is carbon dioxide. The burning of fuels like coal and oil produces 21.3 billion metric tons of the gas per year. However, nuclear power does not produce any carbon dioxide. As a result, countries that use nuclear power as their primary source of energy enjoy much better air quality than those that use oil or coal. For example, France, which gets 80 percent of its energy from nuclear power, has the cleanest air out of any industrialized country.

Another advantage of using nuclear power is the facility of disposing of waste created in the production of the energy. Nuclear power produces less waste than fossil fuels. In fact, countries that use nuclear power instead of fossil fuels report that nuclear waste accounts for less than 1 percent of all toxic waste. The small amount of nuclear waste can easily be stored in containers. Then it is buried deep underground. Though nuclear waste is highly toxic, it loses its toxicity over time. Even the most dangerous nuclear waste becomes harmless after about forty years.

fossil fuels:

fuels that are formed underground from plant and animal remains over millions of years, such as gas, coal and oil

underestimate:

to place too low a value on something

contaminant:

a substance that harms another thing

culprit:

a source of a problem

facility:

the ability to do something easily

Advantage 1:

Nuclear Power

Advantage 2:

1. Which of the following best expresses the essential information in the highlighted sentence in paragraph 1? Incorrect answer choices change the meaning in important ways or leave out essential information.
- The early development of nuclear power was controversial because of the advantages associated with it.
 - Despite controversy surrounding nuclear power, it is known to have several advantages.
 - There has been much controversy about whether nuclear power is advantageous.
 - Scientists have developed many controversial arguments about the advantages of nuclear power.
2. Which of the following best expresses the essential information in the highlighted sentence in paragraph 2? Incorrect answer choices change the meaning in important ways or leave out essential information.
- Coal or oil cannot be used as a primary source of power, while nuclear power can.
 - Nuclear power is responsible for cleaner air in countries that use oil and coal.
3. Which of the following best expresses the essential information in the highlighted sentence in paragraph 3? Incorrect answer choices change the meaning in important ways or leave out essential information.
- 'Waste created by nuclear power is one percent less toxic than that produced by fossil fuels.
 - Fossil fuels create nuclear waste that only makes up one percent of toxicity of all waste in countries.
 - Nuclear waste only accounts for one percent of all toxic waste in countries that use it.
 - Nuclear power and fossil fuels create the same amount of toxic waste, about one percent of all waste in the country.

Fill in the blanks to complete the summary.

The passage discusses good things about using nuclear power. The writer says that unlike fossil fuels, this kind of power doesn't produce air pollution. Pollution should not be _____ . Many problems are caused by _____ in the air. They damage buildings and cause many human illnesses. The main _____ is carbon dioxide gas. When nuclear power is produced, there is a _____ for easy waste disposal. There is only a small amount of waste, and it is easy to store.

05 Anthropology

Read the following passage. Then fill in the diagram with the information that you read.

Track 44

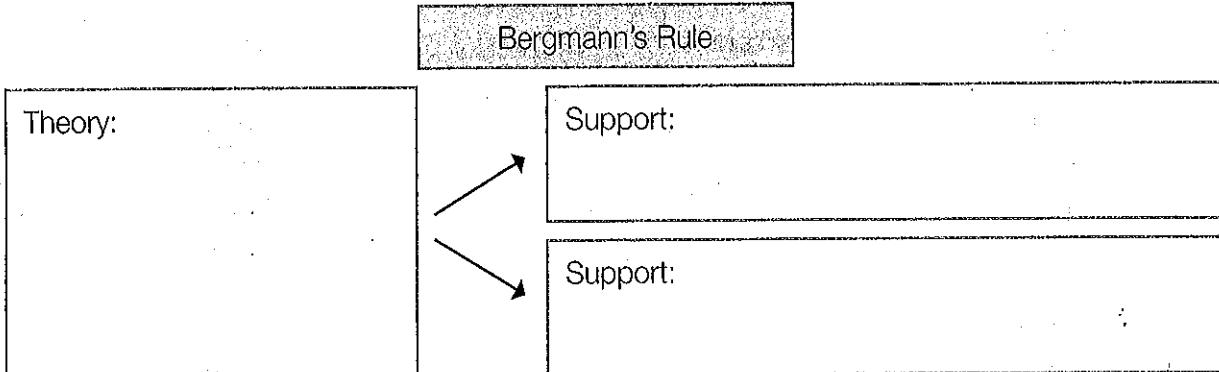
Bergmann's Rule

The sizes of certain animal species vary from one part of the world to another. In 1847, a German scientist named Carl Bergmann made an important observation: animals that lived in northern climates were larger, while animals that lived in southern places tended to be smaller. He guessed that the size difference in animals was related to regulation of body temperature. Animals with larger bodies are able to create and store heat within the body. They are also better able to retain heat because of their shape. Therefore, large animals in the cold climates of the north are able to stay warm. Conversely, the animals that live in warmer temperatures in the south stay cool because their small bodies quickly lose heat. His conclusions are now known as Bergmann's Rule.

The pattern set out by Bergmann's Rule is easily correlated with the animal kingdom. The polar bear, for example, is appreciably larger than other bears. Polar bears live in the coldest parts of the world. As predicted by Bergmann's Rule, they have enormous bodies. Adults weigh up to 2,000 pounds and can be ten feet tall. The massive body of the polar bear helps it absorb and maintain heat in its freezing habitat. Meanwhile, bears that live in warm, tropical areas, such as the sloth bear, are much smaller. The sloth bear only weighs about 300 pounds and is about five feet long. Its small body actually has a large surface area, so it is able to release more heat through its skin in order to stay cool.

Bergmann's Rule is also demonstrated in human populations. In one study, scientists found that populations that live in colder climates have extremely different body types compared to those who live in hot regions. Those from colder areas are stockier in build. The Inuit people, for example, who inhabit Alaska, typically have thick and large bodies. The shape of their bodies helps them maximize the amount of heat produced by the body while simultaneously protecting them from heat loss. Meanwhile, the bodies of people in hot regions are often small. For instance, many people from the hot jungles of central Africa are less than five feet tall. Their short bodies help them release heat.

correlate:
to show a relationship between
appreciably:
significantly
surface area:
how much area of an object is exposed
maintain:
to keep
stocky:
solid and thick



- 44
1. Which of the following best expresses the essential information in the highlighted sentence in paragraph 1? Incorrect answer choices change the meaning in important ways or leave out essential information.
 - (A) Carl Bergman noticed that animals from northern regions were larger after 1847, while smaller animals came from regions in the south before that date.
 - (B) During the mid-19th century, Bergmann noted that animals in the northern climates were large and those from the south were small.
 - (C) Bergman realized that animals from the north of Germany had large bodies and those in the south had small bodies.
 - (D) Carl Bergmann noticed that in 1847, animals from the north were big and animals from the south were small.

 2. Which of the following best expresses the essential information in the first highlighted sentence in paragraph 3? Incorrect answer choices change the meaning in important ways or leave out essential information.
 - (A) Scientists revealed that the study of populations from cold climates made their body types different from those that live in hot climates.
 - (B) Scientists determined that human body types don't differ from cold climates to hot climates.

Fill in the blanks to complete the summary.

Animals and humans living in colder climates are usually larger than animals living in warmer climates. They use their large size to _____ heat. This is known as Bergmann's Rule. This pattern is easily _____ with the animal kingdom. For example, polar bears from the north are _____ larger than other bears. Inuit people from Alaska are also _____ in build. Sometimes, small bodies have a large surface area so as to release heat.

06 Environmental Science

Read the following passage. Then fill in the diagram with the information that you read.

Track 45

Uses of Cloud Seeding

Weather is usually considered uncontrollable. However, researchers who develop weather modification methods such as cloud seeding are able to manipulate weather slightly. Cloud seeding is the practice of inserting substances into clouds in order to change the type of precipitation a cloud produces or change the behavior of the cloud. Cloud seeding was first developed in the 1940s. Since then, scientists have continued to improve the strategy in order for it to be used in a variety of applications.

The most common use of cloud seeding is to bring about precipitation. Researchers think that the method could be useful in areas that suffer from droughts. In order to produce rain, planes with special equipment fly into the clouds and disperse chemicals. The chemicals initiate reactions that lead to the formation of rain. When rain is formed naturally, ice crystals must first form inside of clouds. As the ice crystals grow larger in size, they become too heavy and fall toward the surface of the Earth. Cloud seeding helps move the natural process along by using chemicals that stimulate the growth of ice crystals in the clouds. Research has shown that cloud seeding is modestly effective in the creation of precipitation. In a study conducted in the San Juan Mountains of Colorado, scientists found that cloud seeding increased snowfall by at least 30 percent.

Researchers are also interested in developing cloud seeding techniques for other applications; some scientists think it can be used to prevent lightning. Lightning causes millions of dollars in damage each year. Furthermore, it is a leading cause of forest fires. During a storm, the ice crystals in a cloud create an electrical charge. Lightning is generated when the charge builds up. For the suppression of lightning, planes don't use chemicals. Instead, they deposit tiny pieces of aluminum into the clouds. Scientists theorize that the aluminum can reduce the negative charge within the cloud. As a result, the lightning is not able to form. Early research from the 1960s indicated that the method may prove to be effective. However, more research is required in order to determine the usefulness of the technique.

modification:

a slight change

manipulate:

to change or control something

drought:

a period of dryness that causes damage to agriculture

disperse:

to scatter

electrical charge:

a quantity of electricity

Uses of Cloud Seeding

Use 1:

Explanation 1:

Explanation 2:

Use 2:

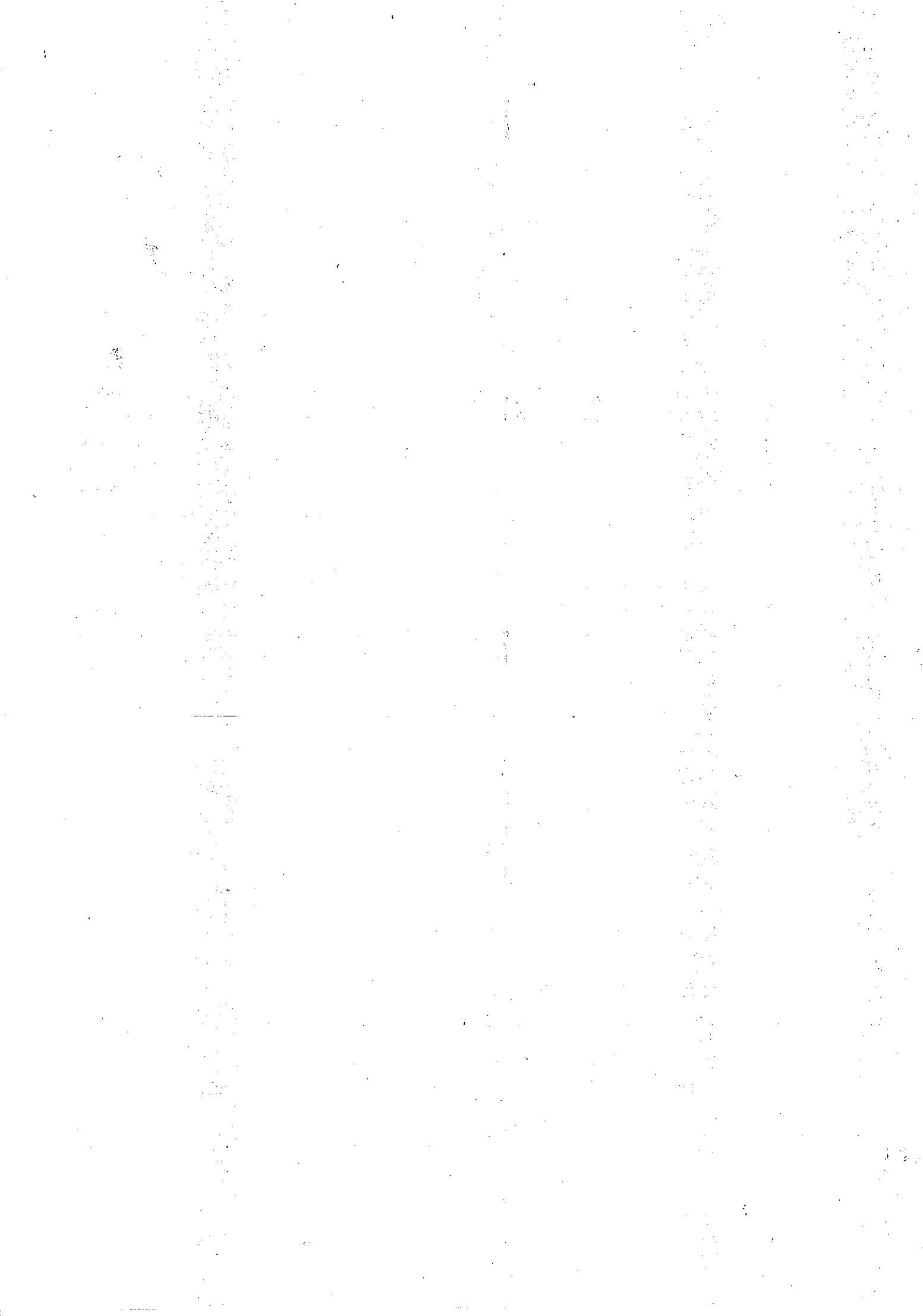
Explanation 1:

Explanation 2:

1. Which of the following best expresses the essential information in the highlighted sentence in paragraph 1? Incorrect answer choices change the meaning in important ways or leave out essential information.
- Cloud seeding is used to change the type of precipitation the cloud releases by changing its behavior.
 - Cloud seeding is practiced by those familiar with cloud behavior and precipitation.
 - By practicing cloud seeding, substances inserted into clouds can be changed into different types of precipitation.
 - In cloud seeding, the behavior and precipitation of clouds is changed by introducing materials to it.
2. Which of the following best expresses the essential information in the highlighted sentence in paragraph 2? Incorrect answer choices change the meaning in important ways or leave out essential information.
- Studies in Colorado showed that a 30 percent increase in cloud seeding can make snow fall more often.
 - Scientists from Colorado found that cloud seeding made less than 30 percent of the year's snow fall in the San Juan Mountains.
3. Which of the following best expresses the essential information in the highlighted sentence in paragraph 3? Incorrect answer choices change the meaning in important ways or leave out essential information.
- Research shows that interest in cloud seeding can help prevent lightning.
 - Cloud seeding techniques may be able to be used to prevent lightning.
 - The lack of interest in cloud seeding has led to research for other applications of the technique.
 - Researchers have found that people are interested in using cloud seeding to prevent lightning.

Fill in the blanks to complete the summary.

Cloud seeding is a form of weather _____ which is used to _____ weather. Scientists can cause more rain to form in clouds. They do so by getting planes to _____ special chemicals inside clouds. This is usually done in areas suffering from _____. By putting aluminum pieces inside clouds, they also hope to stop lightning. Lightning forms inside clouds when ice crystals create an electrical charge.



Chapter 8

Text Insertion Questions

Necessary Skills

- Understanding the logic of a reading passage and grammatical connections between sentences

Example Question

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

[You will see a sentence in bold here.]

Where would the sentence best fit?

Strategies

- Try inserting the bolded sentence in place of each square.
- Pay attention to both the structure of the bolded sentence and the logic of its placement.
- Watch for logical connecting words as they can give important clues about where the sentence should be placed.
- Ensure that the bolded sentence connects logically to both the sentence preceding it and the sentence following it.

01 Anthropology

Read the following passage. Then fill in the diagram with the information that you read.

Track 46

The Nazca Lines

Located in Peru, the Nazca Lines are a series of huge sketches drawn in the desert. ■ A) They are viewable only from the sky. ■ B) For years, researchers have puzzled over the purpose and origins of these pictures. ■ C) However, researchers have formulated several theories. ■ D)

Many researchers believe that the images were created by the Nazca people as art. ● A) They then viewed the massive sketches from the air. They did this both to aid in the creation of the pictures as well as to appreciate their art. ● B) In 1977, Jim Woodman suggested that the Nazca people must have used aircraft—likely hot air balloons—to view the drawings from the air. ● C) Woodman and his team even constructed a balloon out of materials that would have been available to the Nazca people. ● D)

Other researchers suggest that the lines were not meant to be viewed by humans. ♦ A) Many of the images depicting animals and figures were found at other religious sites and upon Nazca pottery. ♦ B) Thus, it is believed that the Nazca Lines were used as religious sites for ceremonies and rituals. ♦ C) In addition, historical data suggests that the Nazca people worshipped the land. ♦ D) This implies that their drawings may have been a method of marking areas as sacred.

sketch:

a picture drawn with only lines and few details

puzzle over:

to think for a long time to try to understand something

formulate:

to develop something carefully

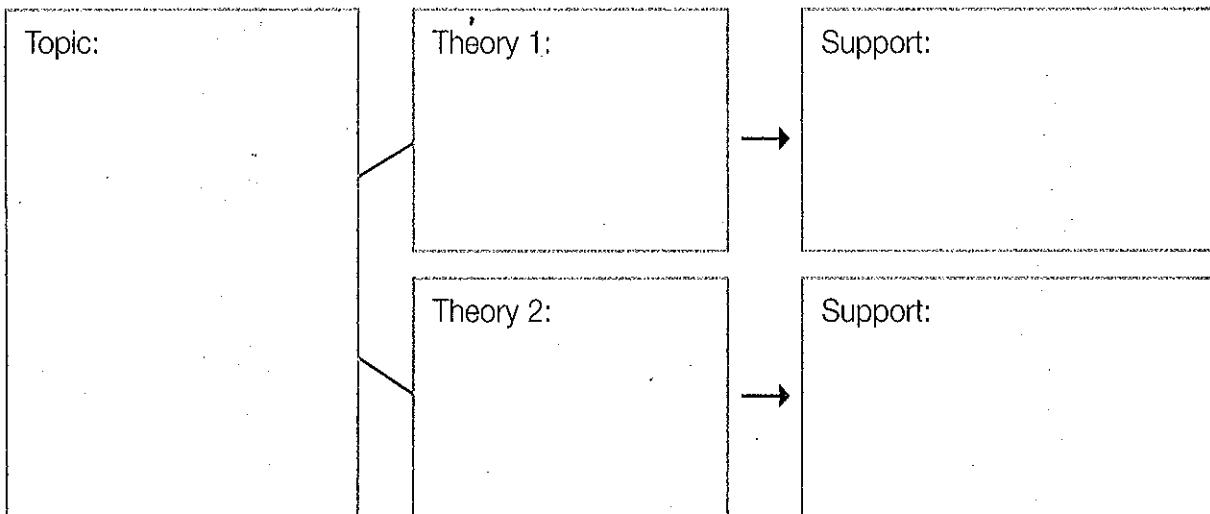
depict:

to show something with pictures

sacred:

related to religion

The Nazca Lines



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

These mysteries are difficult to solve, however, as little evidence remains to explain the purpose of the lines.

Where would the sentence best fit?

- (A) First square
- (B) Second square
- (C) Third square
- (D) Fourth square

2. Look at the four circles [●] that indicate where the following sentence could be added to the passage.

This experiment was a success and served to support Woodman's theory.

Where would the sentence best fit?

- (A) First circle
- (B) Second circle
- (C) Third circle
- (D) Fourth circle

3. Look at the four diamonds [◆] that indicate where the following sentence could be added to the passage.

Instead, they were made for the gods that the Nazca people believed in.

Where would the sentence best fit?

- (A) First diamond
- (B) Second diamond
- (C) Third diamond
- (D) Fourth diamond

Fill in the blanks to complete the summary.

The Nazca Lines are huge _____ found on the desert of Peru. Researchers have _____ over these pictures for many years. They _____ theories about them. Some scientists believe they are art works that should be looked at from the air. Others believe the drawings are used to mark areas that were _____ to the Nazca people. The images depict animals and figures found at other religious sites.

02 Geology

Read the following passage. Then fill in the diagram with the information that you read.

Track 47

The Mount St. Helens Eruption of 1980

In 1980, the Mount St. Helens volcano, located in the state of Washington, USA, erupted. ■ A) It was the first eruption of the volcano in over 100 years. ■ B) The destructive effects of the lava and ash upon the environment were significant. ■ C) However, the eruption also had a number of unforeseen effects upon the area. ■ D) Many of these effects were economic, affecting the area's transportation systems and tourism industry.

The ash from the volcano's explosion affected transportation across the state of Washington. ● A) Directly after the explosion, driving was almost impossible. ● B) The presence of ash in the air made visibility almost zero. ● C) Thus, drivers could not use the roads. ● D) One major interstate in Washington remained closed for nearly two weeks. Airports were also affected. Over 1,000 flights were canceled after airports were forced to close. The cost of cleaning the ash also harmed many airports which were obligated to financially aid the cleanup.

Washington's economy was also hurt by the reduction in tourism. ♦ A) Of course tourism declined in the area of Mount St. Helens after the eruption. ♦ B) However, even many social gatherings, business meetings, and conventions in the state of Washington were canceled or moved to other cities. ♦ C) Many local businesses faced lower profits after the eruption as a result of these cancellations. ♦ D)

erupt:

to explode inside, as in a volcano

unforeseen:

unexpected

visibility:

the distance that you can see

obligated:

forced to do something

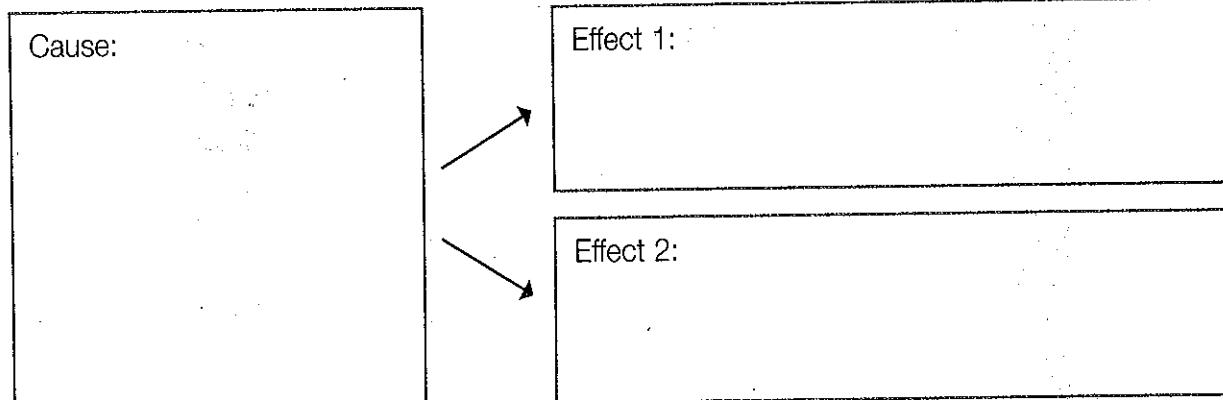
reduction:

the process of getting smaller

1.

2.

Mount St. Helens Eruption



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

The cost of this damage was over one billion dollars.

Where would the sentence best fit?

- (A) First square
- (B) Second square
- (C) Third square
- (D) Fourth square

2. Look at the four circles [●] that indicate where the following sentence could be added to the passage.

In fact, it is estimated that 1.8 million cubic meters of ash were cleared from roads and airports in the aftermath of the eruption.

Where would the sentence best fit?

- (A) First circle
- (B) Second circle
- (C) Third circle
- (D) Fourth circle

3. Look at the four diamonds [◆] that indicate where the following sentence could be added to the passage.

Thus, money that would have been generated by these assemblies was lost.

Where would the sentence best fit?

- (A) First diamond
- (B) Second diamond
- (C) Third diamond
- (D) Fourth diamond

Fill in the blanks to complete the summary.

Mount St. Helens erupted in Washington in 1980 and caused many _____ problems. The explosion affected transportation in the area very badly. There was so much ash in the air that _____ was almost zero. Roads closed down, and airports had to cancel flights. Later, the airports were _____ to give money to clean up the area. The airports lost a lot of money, and the area had a big _____ in tourism. People were scared of the volcano.

03 Biology

Read the following passage. Then fill in the diagram with the information that you read.

Track 48

The Eyes of Honeybees

Most insects have eyes significantly different from the eyes of other animals. The eyes of the common honeybee are called compound eyes.

- A) In essence, a compound eye is made up of many different parts.
- B) The compound eye benefits the honeybee in various ways. ■ C)

The purpose of compound eyes is to allow a bee to more easily locate flowers and find nectar. ■ D)

The compound eye is more easily able to detect motion due to the flicker effect. This phenomenon is defined as a flash that occurs when an object is seen by each part of the compound eye separately. ● A) A bee can only see an object in detail from about one meter away. ● B) Thus, it must rely upon navigating by these flashes rather than by spotting objects at a distance. ● C) For example, flowers—the source of nectar for bees—tend to move easily in the wind. ● D) Thus, the compound eye, which detects motion, is suited perfectly for finding flowers.

In addition, the compound eye can sense ultraviolet (UV) light. ♦ A) UV is a type of light that the human eye cannot see. ♦ B) Researchers have been able to view flowers using UV technology. ♦ C) They have found that, to honeybees, flowers appear very differently than they do to humans. ♦ D) A flower that a bee can use to find nectar can often appear a much darker color than nearby flowers. The bee is thus guided directly to the nectar it needs. Once on the flower, the bee can easily distinguish between nectar and the other parts of the flower. This is because the nectar appears as a different color than the flower itself.

in essence:

essentially; the real or ultimate nature of a thing

nectar:

a liquid produced by some flowers

detect:

to notice something

flicker:

a series of fast flashes of light

distinguish:

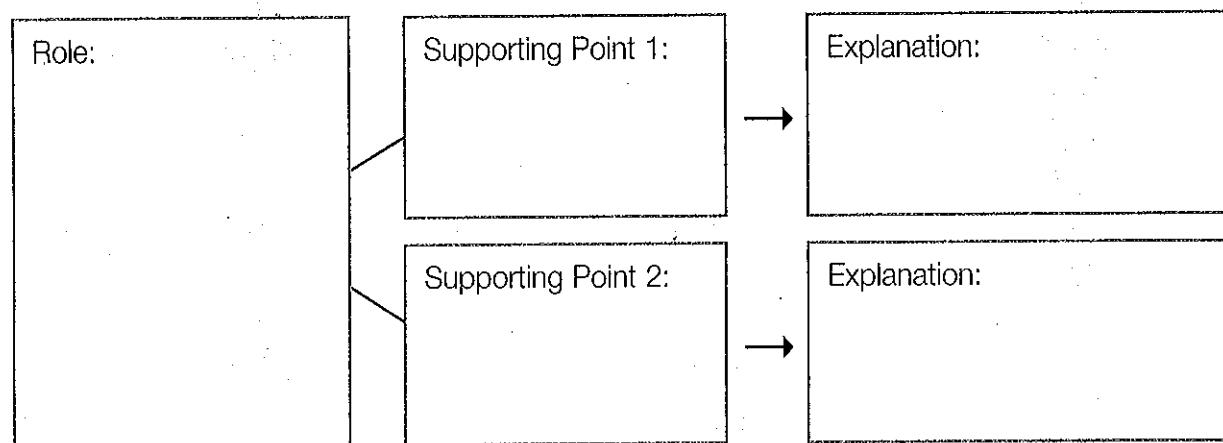
to see the differences between two or more things

1.

2.

Fill in

The Eyes of Honeybees



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

All of these separate units receive visual information.

Where would the sentence best fit?

- (A) First square
- (B) Second square
- (C) Third square
- (D) Fourth square

2. Look at the four circles [●] that indicate where the following sentence could be added to the passage.

These movements of the flower are noticed by the bee before all other objects in the environment.

Where would the sentence best fit?

- (A) First circle
- (B) Second circle
- (C) Third circle
- (D) Fourth circle

3. Look at the four diamonds [◆] that indicate where the following sentence could be added to the passage.

However, it is visible to special cameras, allowing humans to view it with particular types of equipment.

Where would the sentence best fit?

- (A) First diamond
- (B) Second diamond
- (C) Third diamond
- (D) Fourth diamond

Fill in the blanks to complete the summary.

Honeybees have special eyes called compound eyes. They help bees find flowers and _____ . They do so because they _____ motion very well. They can see flowers moving in the wind through flashes. This is called the _____ effect and helps the bees find food. Compound eyes also sense ultraviolet light. This helps the bee find flowers full of liquid because they are darker in color. Honeybees can also use their eyes to _____ between food and other flower parts.

04 Meteorology

Read the following passage. Then fill in the diagram with the information that you read.

Track 49

Stopping Tornadoes

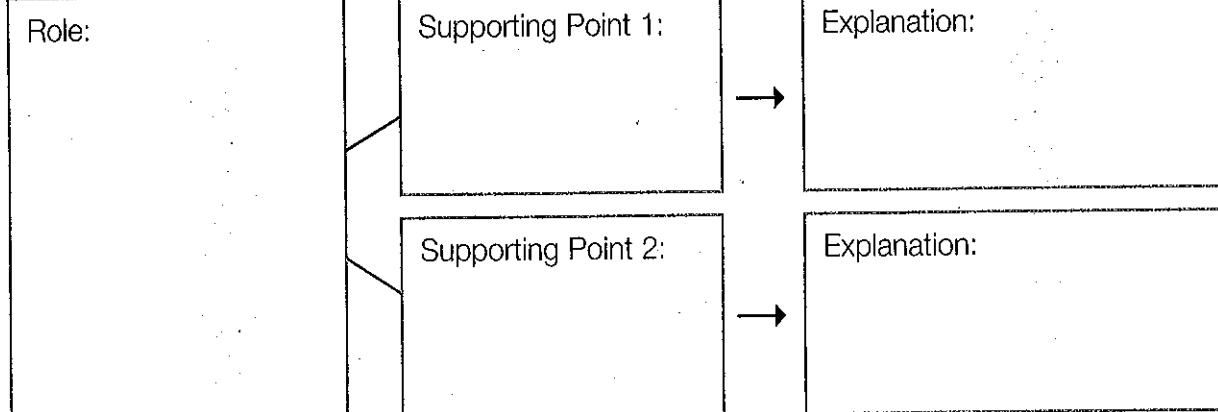
Scientists have yet to discover exactly what causes a tornado to form. They have, however, found a number of weather conditions in which tornadoes usually form. ■ A) By understanding the conditions within storm systems that cause tornadoes to form, scientists believe that they can stop tornadoes before they begin. ■ B) One new technology uses microwaves to alter the air. ■ C) Another uses a type of powder that can dissipate storms. ■ D)

By shooting beams of microwaves, scientists may be able to reduce the likelihood that a tornado will form. ● A) The key to this theory lies within the cold downdraft that is believed to have a role in tornado formation. ● B) Some scientists believe that without the presence of the cold draft, a tornado could not form. ● C) Thus, beams of microwaves could be directed into a weather system in which a tornado might form. ● D) In fact, scientists believe the beams could be shot onto the cold air directly. The microwaves would heat the cold draft, stopping the possibility of a tornado forming. Though it sounds unlikely, one scientist used a computer simulation to demonstrate that this theory was indeed possible.

Another new technology comes in the form of a powder that can stop storms before they become severe. ♦ A) Called Dyn-O-Gel, the powder is made from a substance that can hold over 1,500 times its own weight in water. ♦ B) By dropping the powder into clouds, their moisture can be absorbed by the powder. ♦ C) Therefore, with the storm system gone, tornadoes cannot form. ♦ D)

microwave:
waves that can carry heat or information
dissipate:
to make something smaller until it disappears
beam:
a line of energy
downdraft:
a downward current of air
simulation:
something that creates a situation that is not real but similar
severe:
very serious

Stopping Tornadoes



- 49 1. Look at the four squares [■] that indicate where the following sentence could be added to the passage.

For example, it is common to see tornadoes appear when cold air moving downward meets warm air moving upward.

Where would the sentence best fit?

- (A) First square
- (B) Second square
- (C) Third square
- (D) Fourth square

2. Look at the four circles [●] that indicate where the following sentence could be added to the passage.

As this air moves downward, it interferes with warmer air moving upward, causing the tornado to form.

Where would the sentence best fit?

- (A) First circle
- (B) Second circle
- (C) Third circle
- (D) Fourth circle

3. Look at the four diamonds [◆] that indicate where the following sentence could be added to the passage.

This process removes all moisture from the cloud and destroys it altogether.

Where would the sentence best fit?

- (A) First diamond
- (B) Second diamond
- (C) Third diamond
- (D) Fourth diamond

Fill in the blanks to complete the summary.

Scientists think they may have found two ways to stop tornadoes from forming. One way is to shoot microwaves into weather systems where tornadoes might form. These are special _____ that warm the air so that the _____ causing tornadoes don't form. Using a computer _____, one scientist has shown how this might work. The other way is to use a special powder to _____ storms before they get too severe. This powder absorbs the moisture that makes storms happen.

05 Economics

Read the following passage. Then fill in the diagram with the information that you read.

Track 50

Currency Unions

In economics, the term *currency union* (also known as a monetary union) refers to a group of countries that have agreed to use the same currency. ■ A) Most recently, many countries in Europe began a currency union called the euro. ■ B) This currency was created in 1999 in order to unite a number of European countries under a singular, simple currency. Fifteen countries in total have joined the union, all of which have stated that they believe the union has been a resounding success. ■ C) Economists who study currency unions are beginning to understand their effects to determine if they really are successful. ■ D)

On the positive side, a currency union can vastly improve the travel experiences of citizens within the united countries. • A) In the past, Europeans were subject to currency exchanges. • B) In essence, this means that they were required to exchange the money from their own countries when they traveled. • C) It is thought that a tourist visiting twelve European countries, before the union, would have lost 40 percent of their money's value after fees. • D) However, a currency union negates these fees. Thus, traveling is made easier for Europeans. In addition, those moving to a new European country can easily move money across national boundaries. Thus, it is easier for Europeans to relocate or for a European to attend a university in a different country.

Furthermore, a currency union can help many businesses. ♦ A) The largest benefit is the absence of currency-exchange risk. ♦ B) Just as with individual tourists, businesses must exchange currency when doing business with other countries. ♦ C) Currency-exchange risk, then, is the danger that a company will lose money when investing it in another country due to the exchange rate. ♦ D) Economists agree that this behavior is harmful to all businesses as it limits their profits and the scope of their operations. A currency union, however, removes the need for currency exchanges. Since all businesses operate with the same currency, there is no barrier to doing business with other countries. Thus, both imports and exports in all countries involved can increase.

currency:

the money used by a country or group of countries

negate:

to cancel something

boundary:

a line that separates two things

absence:

the lack of something; a time when something does not exist

operation:

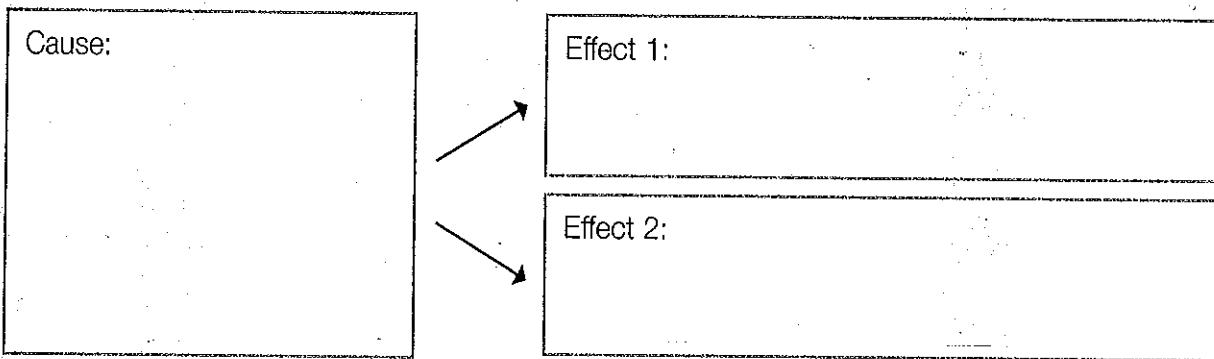
the way that a company does its business

1.

2.

Fill in

Currency Unions



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

It seems that many of these consequences are, in fact, very positive for citizens and businesses alike.

Where would the sentence best fit?

- (A) First square
- (B) Second square
- (C) Third square
- (D) Fourth square

2. Look at the four circles [●] that indicate where the following sentence could be added to the passage.

Such exchanges were also subject to fees.

Where would the sentence best fit?

Fill in the blanks to complete the summary.

Many good things happen when countries share one _____. A good example is the European Union where fifteen countries share one kind of money. This stops people from losing money through exchange fees when they move between countries. These fees are _____ because all the countries share the same money. Travelers and businesses can move money across national _____. There is an _____ of risk. Business operations work better and more easily.

06 Health

Read the following passage. Then fill in the diagram with the information that you read.

Track 51

Light Pollution

As humans continue to develop towns and cities, rapidly increasing numbers of lights flood the sky with a dim glow. These vary from street lights, interior lighting of houses and buildings, and lighted advertisements. To some, such as novice astronomers, this can be an annoyance that makes stargazing difficult. However, many of the effects of light pollution are far more serious. Light pollution can harm human health and can even disrupt ecosystems.

Light pollution—especially indoors—can become a threat to human health. Office workers can very often see their health decline due to the high levels of fluorescent lighting in many offices. ■ A) A number of studies have found that bright office lighting can lead to an increased incidence of headaches, fatigue, and even high blood pressure. ■ B) According to one study, average levels of office lighting led to elevated blood pressure, up to eight points above normal. ■ C) In addition, high levels of light at night can adversely affect health by disrupting the body's natural cycles of daily light and dark. ■ D)

Additionally, light pollution can affect the mind. Once again, office workers are at increased risk. Both employers and scientists have repeatedly found that high levels of light can affect the mental health of employees in various ways. • A) Employee performance was also lessened. • B) One study found that the increased stress of workers led to more mistakes and slower performance. • C) During one study, researchers analyzed the performance of workers before and after a lighting renovation. • D) After the renovation, the company's productivity increased. Employees even cited that they were happier with their jobs.

Light pollution also disrupts ecosystems. Many plants and animals rely upon a natural cycle of night and day. In terms of plants, their natural behavior can be changed by outdoor lighting. ♦ A) For example, the Cereus flower blooms only at night. ♦ B) High levels of light can confuse the flower. ♦ C) Thus, thinking it is day, it never blooms at all. ♦ D) Since the flower must bloom to reproduce, the populations of the flower may fall drastically. Animals that only reproduce at night—such as saturniid moth species—can be affected in the same way.

disrupt:

to stop something from happening normally

fluorescent lighting:

a bright indoor lighting used in many schools and offices

incidence:

the number of times that something happens

adversely:

in a negative way

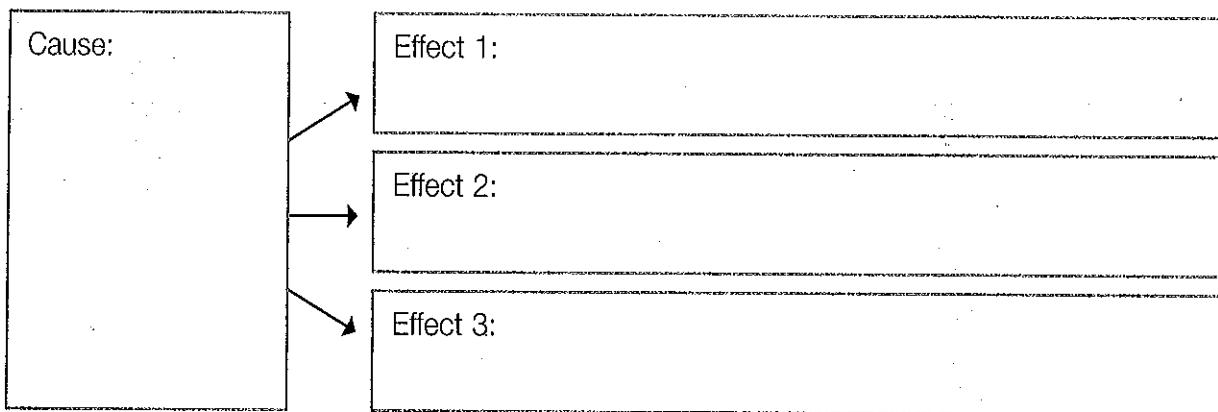
renovation:

the act of repairing something to make it look new

productivity:

the rate at which someone does work

Light Pollution



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

Such disruptions have been linked to many diseases, including breast cancer.

Where would the sentence best fit?

- (A) First square
- (B) Second square
- (C) Third square
- (D) Fourth square

2. Look at the four circles [●] that indicate where the following sentence could be added to the passage.

Under these conditions, workers often feel high levels of stress or anxiety.

Where would the sentence best fit?

- (A) First circle
- (B) Second circle
- (C) Third circle
- (D) Fourth circle

3. Look at the four diamonds [◆] that indicate where the following sentence could be added to the passage.

Then it closes at the first morning light.

Where would the sentence best fit?

- (A) First diamond
- (B) Second diamond
- (C) Third diamond
- (D) Fourth diamond

Fill in the blanks to complete the summary.

Pollution made by light can be bad for human health. It can also _____ ecosystems. High levels of fluorescent lighting can make office workers sick. Studies have found that there is a higher _____ of ill health among workers in offices that have bright lights. Health can be _____ affected if there is too much light at nighttime. When lighting _____ happen, workers often start to feel better. Their productivity also increases, and they feel happier at work.

Vocabulary Review 2

Instructions: Choose the best word or phrase to complete each sentence.

1. The wind can _____ a plant's seeds over a large area.
(A) disperse
(B) erupt
(C) extend
(D) project
2. Many critics believe Gladiator to be one of the greatest _____ movies of all time.
(A) sacred
(B) meteoric
(C) epic
(D) reserved
3. The area received no rain during the _____.
(A) pollutant
(B) drought
(C) facility
(D) reign
4. Deforestation may lead to the _____ of many species.
(A) exception
(B) sarcasm
(C) productivity
(D) extinction
5. Microscopes allow scientists to _____ small objects.
(A) compact
(B) correlate
(C) provoke
(D) magnify

6. The scientist made a minor _____ to make her theory stronger.
(A) modification
(B) slogan
(C) intellectual
(D) simulation
7. The cat _____ into the dark alleyway.
(A) deposited
(B) targeted
(C) vanished
(D) dotted
8. While many people resisted the new dress code, I _____ it.
(A) embraced
(B) appeased
(C) related
(D) spurred
9. The cold temperatures in Antarctica make life nearly impossible.
(A) driving
(B) urban
(C) frigid
(D) drastic

Instructions: Choose the word or phrase closest in meaning to the underlined word(s) in each sentence.

10. He created an outline before writing his essay.
- (A) detected
(B) maintained
(C) negated
(D) formulated
11. The meerkat's claws allow it to easily dig into the earth.
- (A) tunnel
(B) adapt
(C) provoke
(D) reveal
12. A plant's roots help to hold it in place.
- (A) anchor
(B) deposit
(C) target
(D) drive
13. The noise from the nearby construction site was annoying to office staff.
- (A) favored
(B) elongated
(C) anomalous
(D) neighboring
14. Listening to music encouraged her desire to play the drums.
- (A) retreated
(B) shielded
(C) descended
(D) spurred
15. Many new laws attempt to control the airline industry.
- (A) regulate
(B) disperse
(C) compete
(D) underestimate

Instructions: Write the missing words. Use the words below to fill in the blanks.

puzzled ultimately pollutant
incidence pests

As scientists attempt to understand the damage caused by global warming to many areas of the world, they have uncovered a surprising effect. DDT, a common chemical used to kill 16. _____, is being released back into the environment as ice melts. DDT was banned after it was found to be a(n) 17. _____ of many ecosystems. In recent studies of arctic species, scientists found a surprisingly high 18. _____ of predators with DDT in their systems. Scientists 19. _____ over this unexpected finding until they realized that DDT was carried on air currents up to the arctic. There, the chemical was frozen in ice. Later, the ice melted, and the contaminant 20. _____ ended up in various species of the arctic food chain.

Instructions: Match the words that are opposite in meaning.

- | | |
|--------------|--------------|
| 21. distinct | (A) victim |
| 22. drastic | (B) proceed |
| 23. culprit | (C) similar |
| 24. inferior | (D) minor |
| 25. retreat | (E) superior |

Mini Test 2

01 Geology

Read the passage and answer the questions.

Track 52

Creation of Cenotes

Some of the most spectacular sights in the world are created by the Earth's natural processes. Cenotes for example, are created through a natural drainage process. Cenotes are water-filled sinkholes that are part of extensive underground river and cave systems around the world, though they are most commonly found in the Yucatan Peninsula of southern Mexico. There are several basic steps in the creation of a cenote.

A cenote first begins to form when water seeps through limestone. The reason that most cenotes are found in the Yucatan Peninsula is because the region sits above a shelf of limestone. Limestone is different from other types of rock because it is extremely porous. ■ A) The water that drains through the limestone collects under the Earth's surface and forms long, underground rivers. ■ B) These river systems can be up to 100 kilometers long, and many of them are connected to the ocean. ■ C) Because the water travels through layers of rock, dirt and other contaminants are naturally filtered out. ■ D)

The next step in the creation of the cenote is the development of underground caves. The caves are carved out of the limestone by the moving waters of the underground river. All the while, rainwater continues to drip from the surface above. As the water drips down, it collects minerals that form large stalactites on the cave ceilings. The caves become larger over time, and the limestone roofs that cover them struggle to support themselves.

The cenote finally appears when the limestone roof of the cave collapses. The entry to the cenote is sometimes just a small spot where a chunk of the roof has fallen. As the cenote gets older, larger portions of the roof crumble, creating a large opening to the cenote.

- **sinkhole** a hole that is created on the surface of the Earth and connected to an underground passage
- **stalactite** a cave formation that hangs from the ceilings of caves

1. Which of the following best expresses the essential information in the highlighted sentence in paragraph 1? Incorrect answer choices change the meaning in important ways or leave out essential information.
- (A) There are many sinkholes in the Yucatan Peninsula region of southern Mexico.
(B) Sinkholes filled with water are known as cenotes and are only located in southern Mexico.
(C) A cenote is a sinkhole that is filled with water and found mostly in southern Mexico.
(D) Sinkholes found in the Yucatan Peninsula of Mexico are given the title of cenotes.
2. The word **it** in paragraph 2 refers to
- (A) peninsula
(B) shelf
(C) limestone
(D) rock
3. The word **collects** in paragraph 3 is closest in meaning to
- (A) obtains
(B) moves
(C) gathers
(D) forms
4. Look at the four squares [■] that indicate where the following sentence could be added to the passage.
- For this reason, the water in cenotes is very clear.**
- Where would the sentence best fit?
- (A) First square
(B) Second square
(C) Third square
(D) Fourth square
5. The word **them** in paragraph 3 refers to
- (A) stalactites
(B) ceilings
(C) caves
(D) roofs
6. The word **collapses** in paragraph 4 is closest in meaning to
- (A) shows
(B) stretches
(C) falls
(D) grows

02 Chemistry

Read the passage and answer the questions.

Track 53

The Chemistry of Fireworks

Fireworks provide a colorful and fiery backdrop for celebrations and important days. Fireworks are, however, far more complex than simple colors in the sky. Behind those bright displays is a series of chemical processes that makes the creation of color possible. The trick to creating the colorful ~~exhibitions~~ relies on two factors: incandescence and luminescence.

The brightness of a firework is determined by incandescence. Incandescence is light that is released from an object as a result of its temperature. The color of the light depends on how hot it is. Generally, the hotter the material gets, the more brightly it will shine. For example, as a material begins to heat up, it ~~emits~~ a red light. As the temperature of the firework gets hotter, the color of the light will change from orange, then yellow, and then, at its hottest, it will shine an extremely bright white light. Firework makers use incandescence to help make the type of light they want in a display. By using specific materials, they can raise the temperatures of the materials. Magnesium and aluminum, for instance, are commonly used to increase the temperature of a display. As a result, fireworks using these materials burn very brightly.

The second factor in creating amazing firework displays is luminescence. It is also called cold light because it can occur at room temperature. Unlike incandescence, luminescence is light that is created by energy sources besides heat. ■ A) An example of such a source is chemical reactions. ■ B) In fact, fireworks use the energy from them to make colored light. ■ C) Makers of fireworks use a combination of chemicals. Burning chemicals starts a reaction that creates luminescence. ■ D)

► **fireworks** explosive devices that produce striking displays of light

1. The word **exhibitions** in paragraph 1 is closest in meaning to
- (A) lights
 - (B) rarities
 - (C) displays
 - (D) designs
2. The word **it** in paragraph 2 refers to
- (A) object
 - (B) temperature
 - (C) color
 - (D) light
3. The word **emits** in paragraph 2 is closest in meaning to
- (A) enters
 - (B) releases
 - (C) creates
 - (D) burns
4. Which of the following best expresses the essential information in the sentence below? Incorrect answer choices change the meaning in important ways or leave out essential information.

As the temperature of the firework gets hotter, the color of the light will change from orange, then yellow, and then, at its hottest, it will shine an extremely bright white light.

- (A) The light will change from orange to yellow and white as the firework's temperature increases.
- (B) As fireworks get hotter, their light can become a variety of colors, including bright white.
- (C) A firework can burn a variety of colors, including orange, yellow, and a very bright white.
- (D) The color of a firework demonstrates the temperature that the firework is burning at.

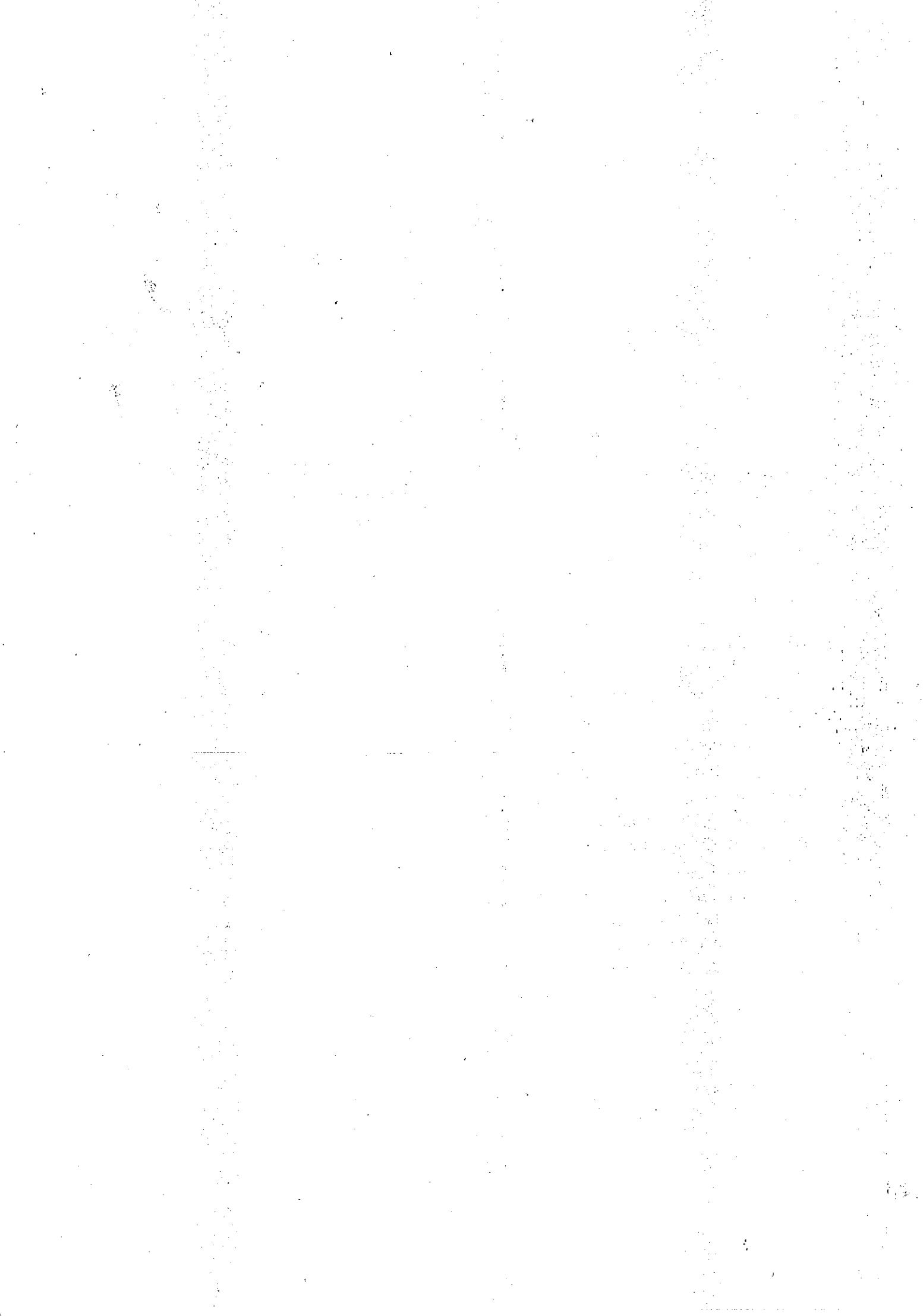
5. The word **them** in paragraph 3 refers to
- (A) displays
 - (B) energy sources
 - (C) chemical reactions
 - (D) fireworks

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

For example, to create blue fire, firework makers must burn a copper compound.

Where would the sentence best fit?

- (A) First square
- (B) Second square
- (C) Third square
- (D) Fourth square



Chapter 9

Prose Summary Questions

Necessary Skills

- Recognizing the organization and relative importance of information presented in a passage
- Understanding and locating specific points in a passage key to the gist of a passage as a whole
- Organizing information presented in a passage into a mental outline

Example Question

- 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. ***This question is worth 2 points.***

[You will see a sentence in bold here.]

Strategies

- Distinguish main ideas from minor ideas, and essential information from non-essential information.
- Remember that correct answer choices will not be identical to any particular sentence in the passage.

01 Biology

Read the following passage. Then fill in the diagram with the information that you read.

Track 54

1.

Ungulates

An ungulate is a unique type of mammal that carries its weight on the tips of its toes. Because of this, most ungulates have evolved hooves to carry their weight. Cattle, horses, pigs, and sheep are all ungulates. Although their feet may appear somewhat similar, there are two types of ungulates that are quite different from each another.

Odd-toed ungulates tend to be large animals such as horses and rhinoceros, which carry all of their weight on one toe. The toe forms into a single hoof on each foot that can carry the animal's large mass. The large hooves of a horse, for instance, are suited to carry its extreme weight. In addition to being strong, the hooves of odd-toed ungulates tend to be quite wide as well. The wide hoof helps them balance their large bodies.

Even-toed ungulates tend to be smaller animals such as antelopes and pigs. Their weight is borne by two toes on each foot. Each weight-bearing toe has evolved its own hoof. As such, they have "split" hooves that allow them to move quickly and maintain good balance. Unlike the hooves of odd-toed ungulates, even-toed ungulates' hooves are designed for mobility, not for holding large amounts of weight.

hoof:
the thick, hard part of an ungulate's foot

mass:
the amount of matter that a body contains

suited:
fit for a particular situation

balance:
to remain in a steady position so as to avoid falling

mobility:
the ability to move easily

Definition:

Ungulates

Type 1:

Type 2:

1. An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the TWO 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. **This question is worth 2 points.**

The passage describes the different types of ungulates.

A large rectangular box with a thin black border. Inside the box, there are two small black dots, each preceded by a bullet point (•).

Answer Choices

- (A) Even-toed ungulates tend to be larger animals whose split hooves allow them to balance their large masses.
- (B) The split hooves of even-toed ungulates offer them a good degree of mobility and are not designed to bear heavy weight.
- (C) The solid hooves of odd-toed ungulates are suited to carry their large masses and offer good balance.
- (D) Antelopes, pigs, horses, and cattle are identified as ungulates because of their hoofed feet.

Fill in the blanks to complete the summary.

The passage discusses mammals called ungulates that carry their weight on their _____ . There are two types of ungulates. Odd-toed ungulates carry their large masses on hooves that are not split. The large hooves of a horse, for example, are _____ to carry its extreme weight. Odd-toed ungulates also have wide hooves, which help them _____ their large bodies. Even-toed ungulates have "split" hooves which are designed for _____ , not for holding large amounts of weight.

02 Health

Read the following passage. Then fill in the diagram with the information that you read.

Track 55

The Health Benefits of Beverages

New research has discovered that caffeine and tea may have incredible health benefits. If they are consumed regularly, they can help prevent and fight a number of common diseases.

Caffeine was found to help prevent multiple sclerosis (MS). MS is a disease that causes a person's immune system to attack the tissue around nerve fibers. MS can cause loss of feeling in parts of the body and even the loss of vision. Caffeine, however, creates a protective layer around a person's nervous system. As a result, the caffeine acts as a barrier, preventing the immune system from damaging nerve cells. Mice that were given doses of caffeine were 75 percent less likely to get MS. In cases where mice did get MS, their cases were less severe.

Green tea is already well known for its antioxidants, which have been linked with lower rates of cancer. However, new findings suggest that both black and green tea may also be beneficial for another reason. Teas have natural chemicals, called catechins, which are believed to have anticancer effects. However, the digestion process breaks down many of the catechins in tea. It is unclear if catechins can be directly injected into the body and used without being digested. Still, even the amounts of catechins in tea can provide health benefits. In one study of the Kuna people native to Panama, the consumption of teas with catechins led the Kuna people to have less than a 10 percent incidence of stroke, heart failure, cancer, and diabetes.

caffeine:
a chemical found in coffee and tea that stimulates the central nervous system

protective:
keeping something safe

dose:
a quantity of medicine taken to prevent or treat symptoms

digestion:
the process of breaking food down for energy

incidence:
the rate at which something happens

stroke:
a medical condition in which blood cannot reach the brain

The Health Benefits of Beverages

Theory:

Support 1:

Support 2:

1. An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the TWO 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. **This question is worth 2 points.**

The passage discusses two different beverages that may have health benefits.

-
-

Answer Choices

- (A) Certain teas contain catechins, which may help fight certain types of cancer.
- (B) Caffeine protects the body's nervous system against MS by creating a barrier.
- (C) Green tea contains antioxidants, which have been shown to reduce one's chances of getting cancer.
- (D) Catechins may be more effective at fighting some types of cancer than others.

Fill in the blanks to complete the summary.

The passage explains that _____ and tea have many health benefits.

Caffeine makes a _____ layer around a person's nervous system. This helps to prevent multiple sclerosis (MS). Mice given _____ of caffeine were 75 percent less likely to get MS. Teas contain chemicals called catechins which may help fight cancer. Even though the _____ process breaks down many catechins, drinking tea is still healthy. The Kuna people, who drink tea with catechins, have less than a 10 percent incidence of stroke.

03 History

Read the following passage. Then fill in the diagram with the information that you read.

Track 56

The Hanging Gardens of Babylon

The Hanging Gardens of Babylon were listed as one of the Seven Wonders of the World by the Ancient Greeks. The gardens did not actually hang but were rumored to have been planted in a soil bed held up by columns. There is some debate as to whether the gardens actually existed, however. While it remains uncertain, there is some evidence suggesting that the gardens did exist at one point.

A few years ago, most historians doubted that the gardens ever existed since little evidence had been found. They were originally described by a priest and later written about by several Greek historians. However, their description of its location was not in line with archaeological evidence. A building was found that might have housed the famous hanging gardens. It was not on the bank of the Euphrates River though, which is where historians claimed the gardens were located. However, recent excavation along the Euphrates has uncovered a large structure with 25-meter-thick walls. This could very well be the site of the hanging gardens.

In addition to the large walls, further findings at the site suggest that a garden may have been in the area. After clearing the area along the Euphrates River, several seeds were found scattered across the ground. There was an unusually large amount of seeds found in the area. This suggests that a large number of plants were growing in the area. This strengthens the case that the gardens did, in fact, exist.

Seven Wonders of the World:

seven of the most impressive creations of the ancient world

rumored:
suggested but not proven to be true

excavation:
the act of carefully removing buried objects from the ground

scattered:
found in several spots in an area

strengthen:
to make something stronger or more convincing

The Hanging Gardens of Babylon

Theory:

Support 1:

Support 2:

1. An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the TWO 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. **This question is worth 2 points.**

The passage discusses evidence supporting the existence of the Hanging Gardens of Babylon.

-
-

Answer Choices

- (A) A large number of seeds were found in the excavation site, suggesting that several plants had grown in the area.
- (B) A new excavation site along the Euphrates matches the location described by Greek historians.
- (C) The hanging gardens were likely soil beds with plants in them that were held up by columns.
- (D) Before the excavation along the Euphrates, most historians doubted that the hanging gardens ever existed.

Fill in the blanks to complete the summary.

The passage discusses the famous Hanging Gardens of Babylon. They were thought to be one of the Seven Wonders of the World. They were _____ to have been planted in a soil bed held up by columns. _____ by scientists along the Euphrates River uncovered the possible site of the gardens. Scientists cleared the area and found several seeds _____ across the ground. This suggests that many plants were growing in the area. It also _____ the case that the gardens existed.

04 Fine Arts

Read the following passage. Then fill in the diagram with the information that you read.

Track 57

The Pre-Raphaelite Brotherhood

The Pre-Raphaelite Brotherhood was a group of artists and critics that formed in 1848. Their views of and approach toward art differed from the popular trends of the time. Many of their artistic choices caused a stir among critics who felt that the art was too unconventional. Their approach to art was new and quite influential. In fact, some suggest that the group was the first avant-garde movement in art.

The Pre-Raphaelites, as the name suggests, preferred the art before Raphael. Popular art of the time added decoration and unrealistic elements to scenes. Many paintings of the era featured angels or other religious figures. The Pre-Raphaelites thought this approach to art to be too artificial. Instead, they chose to paint scenes as they appeared in reality. Their goal was to portray genuine art: art without any unrealistic or unnecessary elements. This realistic approach also caused many of their paintings to be highly detailed. Many popular art critics found the attention to details unattractive and criticized it as straying too far from popular conventions. These critiques led some to term the movement avant-garde.

Pre-Raphaelites also paid special attention to the medieval period. Most of their paintings were set in the medieval period; most members of the Brotherhood believed the time had a special spiritual aspect that was missing in other eras. As a result, many Pre-Raphaelite paintings are set in an antique setting. Many of the poses were medieval, as well; medieval art tends to show people in poses that were unusual—squatting, kneeling, etc. Their focus on such poses was also a source of criticism. Members of the Brotherhood did not have to adhere to these guidelines for their art. However, their shared sense of community caused many of these elements to appear in most of their paintings.

approach:

a way of doing or thinking about something

stir:

a situation in which many people are surprised or angry

avant-garde:

very different from other forms of the same art

Raphael:

an influential Italian painter of the 16th century

medieval:

relating to the period of history between the 5th and 16th centuries

antique:

belonging to a period in the distant past

adhere:

to believe in or follow the practices of something or someone

The Pre-Raphaelite Brotherhood

Definition:

Explanation 1:

Explanation 2:

1. An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the TWO 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. **This question is worth 2 points.**

The passage discusses the Pre-Raphaelite Brotherhood's approach to art.

•

•

Answer Choices

- (A) Popular artists were influenced by Raphael and included supernatural elements in their work.
- (B) Pre-Raphaelite art avoided mystical figures and instead sought to portray scenes in a realistic way.
- (C) Members of the Brotherhood were required to follow certain standards in their art.
- (D) They set their paintings in antique settings and used poses common in medieval art.

Fill in the blanks to complete the summary.

The passage discusses an art movement formed in 1848 called the Pre-Raphaelite Brotherhood. This movement had a new _____ to art which caused a _____ among art critics. It was so unusual that some people believe it was the first real avante-garde movement in art. The artists paid special attention to the medieval period. While artists were not forced to _____ to rules, they liked to use _____ settings. They also liked to paint in a realistic way.

05 Geography

Read the following passage. Then fill in the diagram with the information that you read.

Track 58

The English Channel

The English Channel is the body of water that separates the British Isles from Europe. It was formed roughly 200,000 years ago. Its presence played an important role on the evolution of the plants and animals that inhabit the British Isles today because of its effect on the movement of animals. The channel created a unique barrier that caused life to develop much differently on the mainland of Europe than it did on the isles. Today, the plants and animals present in the area vary greatly between mainland Europe and the isles.

During warmer periods in history, the English Channel was full of water. As a result, very few plants or animals migrated to the isles at this time. When the water level in the channel is at normal levels, the narrowest part is still twenty-one miles across. As such, no land-based animals could cross the channel during warm periods. However, several species of birds could cross the channel, and many settled on the isles. In addition, many such birds carried seeds over the channel, introducing plants to the isles during warm periods. Thanks to the warmer weather, new plant species were able to establish themselves in the isles during these periods.

During cold periods, much of the water in the sea was frozen. The cold weather prevented new plants from growing on the isles. It did, however, cause much of the sea to freeze, making it possible for some animals to cross over to the isles from Europe. Scientists have found that waters carved the channel out in much the same way that canyons are formed. Even though much of the sea had frozen, rivers from the mainland still ran into the channel itself. They carved a deep rift within the channel that made traversing it nearly impossible for nearly all land-based animals. Even when frozen, the channel still filtered out much of the animal life that existed on the mainland of Europe. For instance, the hippopotamus and the deer can be found in one area on the mainland of Europe. They cannot be found on the isles, however.

British Isles:

the islands of the United Kingdom and Ireland

channel:

a length of water that joins two larger bodies of water

barrier:

an obstacle that prevents movement

establish:

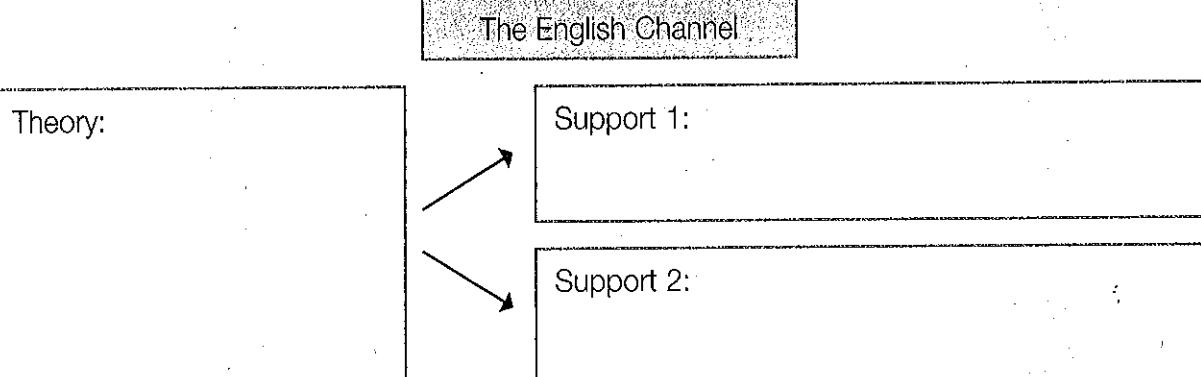
to start to exist in an area

traverse:

to move across an area

filter out:

to remove something from a group



1. An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the TWO 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. **This question is worth 2 points.**

The passage discusses the effects the English Channel had on the development of life on the British Isles.

-
-

Answer Choices

- (A) During warm periods, birds carried seeds across the channel, whereby new species were introduced to the islands.
- (B) When full of water, the narrowest part of the English Channel is twenty-one miles across.
- (C) During cold periods, animals could freely cross the British Isles into mainland Europe.
- (D) Cold periods froze the water in the channel, allowing some animals to cross from Europe into the isles.

Fill in the blanks to complete the summary.

The passage discusses how the English _____ created a _____ between Europe and Britain. This piece of water stopped many animals and plants from traveling to the British Isles. The water was difficult for land animals to _____. In summer, it was full of water, and in winter, when it froze, it was too dangerous to cross. Some birds and plants were able to _____ themselves there in warmer periods. The water did, however, filter out most animals from Europe.

06 Environmental Science

Read the following passage. Then fill in the diagram with the information that you read. Track 59

Carbon Dioxide in the Oceans

The emission of carbon dioxide—or CO₂—into the Earth's atmosphere has increased greatly in the past several decades. Daily human activity, such as driving cars and burning oil or coal for energy, adds CO₂ to the atmosphere. The amount of CO₂ in the air since countries began industrializing has increased by about 35 percent. Much has been written about the potential effects of greenhouse gases on the planet's average temperatures. However, these increased CO₂ levels on Earth threaten life in the sea as well.

As CO₂ levels in the Earth's air increase, so do CO₂ levels in the oceans. The oceans absorb much of the CO₂ in the air. When CO₂ is dissolved into water, it is converted into an acid known as carbonic acid. This acid then increases the acidity of the oceans. Given the large increase of CO₂ in our air, the acidity of our oceans will likely increase as well. On the pH scale—a measurement of acidity—the oceans could soon become .5 points more acidic than their normal levels. Studying the fossil record, researchers have found that the last time the ocean became this acidic was roughly 65 million years ago. Scientists believe these planetary conditions aided in the extinction of the dinosaurs around the same time. This demonstrates the danger that our planet—and especially its oceans—is currently experiencing.

We cannot be sure of the precise impact of increased ocean acidity. However, much of the life in the oceans would not be able to survive in the increased acidity. Many scientists are worried that the effects of increased CO₂ levels in the oceans will be more devastating than they are on land, perhaps leading to mass extinctions of ocean life. Especially worrisome is the possibility that thousands of marine species would be unable to reproduce. Some scientists believe that the increase of CO₂ in the water could make marine animals themselves acidic: a condition called hypercapnia. If this were to happen, not only would many of these animals die, but thousands more would be unable to reproduce as the acidity of their bodies prevents reproduction.

emission:
the process of sending a substance into the air

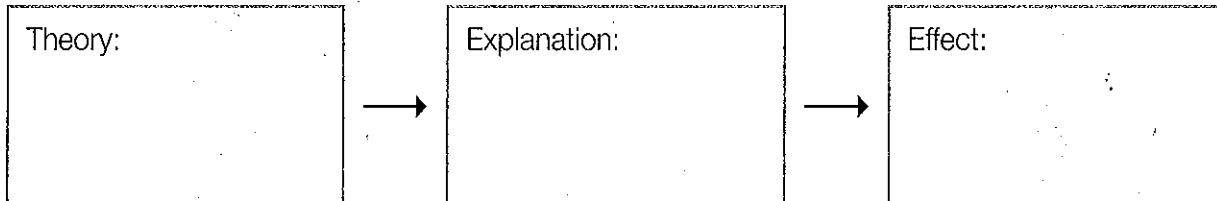
threaten:
to likely cause harm to something

precise:
exact

devastating:
highly destructive

worrisome:
causing a feeling that something bad may happen

Carbon Dioxide in the Oceans



1. An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the TWO 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. **This question is worth 2 points.**

The passage explains the impact of increased CO₂ levels on life in the ocean.

-
-
-

Answer Choices

- (A) The ocean's carbon dioxide is made more acidic by pollution that is absorbed into the water.
- (B) The last time the acidity of the oceans increased significantly was roughly 65 million years ago.
- (C) Scientists fear that acidity will affect many animals, either killing them or preventing reproduction.
- (D) Additional CO₂ will likely be absorbed by the ocean, increasing its acidity and hurting marine life.

Fill in the blanks to complete the summary.

The passage looks at why _____ of carbon dioxide gas are dangerous for the sea. The gas makes the sea more acidic, and this could _____ sea life. Many sea animals and plants cannot live in this kind of environment. Scientists are not sure of the _____ impact this will have. They are scared it could be _____. They also find it worrisome that many sea animals may not be able to reproduce.



Chapter 10

Table/Chart Questions

Necessary Skills

- Recognizing the organization and purpose of a passage
- Understanding rhetorical functions such as cause-effect relationships, compare-contrast relationships, and arguments
- Identifying and organizing important ideas and points from a passage and placing them in the appropriate context

Example Question

- Complete the table below to summarize information about concepts discussed in the passage. Match the appropriate statements to the concepts with which they are associated. TWO of the answer choices will NOT be used. ***This question is worth 3 points.***

Strategies

- Separate main ideas from minor ideas, and essential information from non-essential information.
- Remember that major ideas are ones that would be included in a fairly detailed outline of the passage.

01 History

Read the following passage. Then fill in the diagram with the information that you read.

Track 60

Inca and Aztec Civilizations

Both located in the Americas, the Inca and Aztec civilizations were quite similar. They were so similar, in fact, that even some scholars struggle to remember the difference between them. However, two main distinctions help separate the two cultures.

The main difference between the Inca and Aztec civilizations is their geographical locations. The Incan Empire extended across much of South America. Those areas have become Peru, Argentina, and other nearby countries. The Aztec Empire, on the other hand, was located nearly 1,600 kilometers to the north. The empire stretched across much of modern-day Mexico. The Aztec capital, Tenochtitlan, has now become Mexico City.

The development of the empires also differed. In the case of the Incas, their civilization never had the chance to fully develop into a unified empire. They began as a small tribe and spread quickly across South America. Over 700 different languages were spoken among the many smaller groups of the Incan Empire. These groups never had a chance to become a single group. The empire was destroyed a short ninety-six years after it began. The Aztecs, however, enjoyed a prosperous empire for about 150 years. They even managed to build educational systems that required children—even girls—to receive education beginning at a young age.

distinction:

a difference between two things

empire:

a group of countries ruled by one person or group

unified:

working well together as one group

tribe:

a group of families that live together in an area

prosperous:

successful

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(A)
(B)
(C)
(D)
(E)
(F)
(G)

Fill in 1

Incas vs. Aztecs

Incas 1:

Aztecs 1:

Incas 2:

Aztecs 2:

one;
they—
Azte

more

Directions: Complete the table by matching the phrases below. Select the appropriate phrases from the answer choices and match them to the civilization to which they relate. TWO of the answer choices will NOT be used. **This question is worth 3 points.**

Incas vs. Aztecs	Statements
Inca Civilization	<ul style="list-style-type: none"> • •
Aztec Civilization	<ul style="list-style-type: none"> • • •

Answer Choices

- (A) required girls to attend school at a young age
- (B) developed over 900 new languages
- (C) was destroyed before it fully developed
- (D) stretched across much of South America
- (E) had its capital located in modern Mexico City
- (F) had an empire spanning 1600 kilometers
- (G) thrived for nearly 150 years

Fill in the blanks to complete the summary.

The passage looks at _____ between the Incas and Aztec people. The main ones are that they lived in different places. The Incas lived across much of South America, and they never had a _____ empire like the Aztecs. They began as a small _____ and had many groups. They spoke over 700 different languages. The Aztecs lived across much of modern-day Mexico. They were very _____ for more than 150 years.

02 Health

Read the following passage. Then fill in the diagram with the information that you read.

Track 61

The Development of Ayurveda

Ayurveda is an ancient form of medicine. It originated thousands of years ago in India. The system is still practiced by many people in India and Sri Lanka. Unlike western medical practices, Ayurveda seeks to heal not only the body but the mind and the spirit as well. Several factors have been particularly important to new developments in Ayurveda.

Schools called gurukuls were crucial to the development of the practice. Ayurvedic medicine was created long before there was a system of writing in India. Thus, practitioners of Ayurveda had no way of recording their discoveries. However, at the gurukuls, information was passed down orally from teacher to student over time. As a result, the secrets of Ayurveda were preserved until a writing system was invented.

Buddhism was also important to its development. While at war, the Indian emperor came into contact with Buddhism. Deeply affected by the teachings, the emperor prohibited bloodshed in the kingdom in 250 BCE. Practitioners of the medicine were forced to stop using surgery for a brief period of time as a result. During that time, they came up with new drugs and new healing methods. Combined with surgical techniques developed after the ban was lifted, it has become one of the most advanced forms of traditional medicine in the world.

practice:

to do work in the medical field

crucial:

necessary; very important

record:

to write down information

Buddhism:

a set of beliefs originating in India

prohibit:

to officially state that something cannot be done

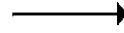
The Development of Ayurvedic Medicine

Cause 1:



Effect:

Cause 2:



Effect:

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tim

Directions: Complete the table by matching the phrases below. Select the appropriate phrases from the answer choices and match them to the factors by which they were influenced. TWO of the answer choices will NOT be used. **This question is worth 3 points.**

Factors Important to the Development of Ayurveda	Statements
Gurukul	• • •
Buddhism	• •

Answer Choices

- (A) caused the Indian emperor to prohibit surgeries
- (B) helped spread information without a writing system
- (C) increased knowledge of new medicines
- (D) led to the development of new surgical techniques
- (E) spread the secrets of Ayurveda to new countries
- (F) passed knowledge orally to new students
- (G) allowed Ayurveda to be remembered to the present day

Fill in the blanks to complete the summary.

Ayurveda is a very old form of medicine still _____ in India and Sri Lanka. Schools called gurukuls were _____ to its development. These people had no way of _____ their discoveries. Information was passed down orally between teachers and students. Buddhism also helped Ayurveda. It made the emperor _____ bloodshed in his kingdom. That meant no one did surgery for a long time. Instead, they found new ways of healing the sick.

03 Biology

Read the following passage. Then fill in the diagram with the information that you read.

Track 62

The Etruscan Shrew

The Etruscan Shrew is one of the smallest mammals in the world. It weighs only two grams and grows to be about four centimeters long. Despite its small size, the shrew is a skilled hunter. The shrew's diet consists mainly of insects, some of which are the same size or larger than the shrew itself. It relies on various strategies to help it hunt effectively in the dark.

To avoid being caught by predators during the day, the shrew must hunt during the cover of night. Ironically, this nocturnal animal has rather poor night vision. Since the shrew's vision is impaired by the darkness, it must rely heavily on its sense of touch. The shrews have long, sensitive whiskers which help them hunt at night. The whiskers act as feelers for the shrew. It helps them to quickly recognize prey simply by touching them. In one study, scientists placed a plastic cricket, which has no smell and did not move, in a cage with a shrew. The shrew attacked the fake cricket viciously. This suggests that shrews depend on their sense of touch over any other sense when hunting.

Scientists have also found that the Etruscan Shrew quickly changes its hunting strategy depending on what type of prey it is facing. As a result, the shrew's prey is rarely able to escape. For example, when a shrew is exposed to an animal it doesn't normally hunt, such as a giant cockroach, it doesn't bite the back of the giant cockroach, which it normally does with smaller insects. Instead, the shrew quickly learns to bite the belly of the cockroach, which is more vulnerable.

shrew:

a small mammal that looks much like a mouse

cover:

something that hides or protects

nocturnal:

active at night

impaired:

unable to function as usual

whisker:

a long, thin hair that is sensitive to the touch

viciously:

aggressively or fiercely

expose:

to bring into contact with

Hunting Strategies of the Etruscan Shrew

Strategy 1:

Strategy 2:

Example:

Example:



Directions: Complete the table by matching the phrases below. Select the appropriate phrases from the answer choices and match them to the adaptation to which they relate. TWO of the answer choices will NOT be used. **This question is worth 3 points.**

Adaptations of the Etruscan Shrew	Statements
Nocturnal adaptations	• • •
Strategy adaptations	• •

Answer Choices

- (A) changes its attack depending on its prey
- (B) uses its long, sensitive whiskers to identify prey
- (C) often seeks out other smaller mammals as prey
- (D) can recognize prey without use of smell
- (E) relies on sound and touch to find prey
- (F) knows to bite different parts of certain animals
- (G) does not use its sense of vision to hunt

Fill in the blanks to complete the summary.

The Etruscan _____, which hunts during the cover of night, is a nocturnal animal. Its vision is _____ by the darkness, so it uses its sense of touch to hunt. In one study, a shrew _____ attacked a plastic cricket which had no smell or movement. This suggests a shrew depends the most on touch when hunting. Also, a shrew can change its hunting strategy when _____ to bigger animals. It can attack both small insects and giant cockroaches.

04 Geology

Read the following passage. Then fill in the diagram with the information that you read.

Track 63

Effects of Permafrost Loss

Under the surface of the continent, there is a thick layer of frozen soil called permafrost. Permafrost makes up the foundation for ecosystems in northern regions. It provides a stable platform for forests and other plant life to grow on. Twenty percent of the Earth's landmasses are covered in permafrost. Scientists have learned that permafrost has started to thaw, and they are beginning to question the consequences of this loss of permafrost.

Since permafrost forms the foundation of northern forests, many problems arise when it thaws. The loss of permafrost means that the land above it loses its support. As a result, when permafrost melts, the soil found at the surface begins to sink. There are a host of problems associated with sinking soil. The most serious is that the land becomes more vulnerable to flooding. In developed areas, flooding can cause damage to property and roads. Even more consequential, scientists have found that flooding also increases amounts of methane, a greenhouse gas, in the atmosphere. Methane, previously trapped in the frozen remains of plants and animals, is slowly released as these remains thaw.

Some scientists, however, don't think that the melting of permafrost is a cause for concern. Many changes occur in the environment because of the flooding caused by permafrost loss: soil becomes pervaded by nutrients that help plants thrive, and completely new types of plants start to grow. According to a study, the flooding is good for the environment. They found that many new plants grew in areas where flooding occurred. Besides an increase in the diversity of plants, this increase in flooding may actually lead to a decrease in global warming. Plants are able to absorb greenhouse gases, thus, removing them from the atmosphere. Many of these claims, however, have not been proven by scientific tests.

platform:

a horizontal flat surface that provides support

sink:

to move downward to a lower area

greenhouse gas:

gases that contribute to global warming

trapped:

kept in a particular place

pervade:

to spread throughout something

Effects of Permafrost Loss

Cause:

Effect 1:



Effect 2:



Directions: Complete the table by matching the phrases below. Select the appropriate phrases from the answer choices and match them to the effect to which they relate. TWO of the answer choices will NOT be used. **This question is worth 3 points.**

Effects of Permafrost Loss	Statements
Possible problems of permafrost loss	<ul style="list-style-type: none"> • •
Possible benefits of permafrost loss	<ul style="list-style-type: none"> • • •

Answer Choices

- (A) soil sinks and leads to increased flooding
- (B) more plants grow to absorb greenhouse gases
- (C) methane is released from frozen remains
- (D) 20 percent of the Earth is covered in permafrost
- (E) floods make soil more fertile
- (F) permafrost absorbs greenhouse gases
- (G) new types of plants grow in flooded areas

Fill in the blanks to complete the summary.

The passage discusses permafrost, a thick layer of frozen soil. Permafrost provides a stable _____ for plant life to grow on. When permafrost melts, the land above it begins to _____. This melting can lead to flooding and increase the amount of methane, a _____. The methane _____ in the frozen remains of plants and animals is released when they thaw. Some think that the melting of permafrost is good because it allows soil to become _____ by nutrients.

05 Zoology

Read the following passage. Then fill in the diagram with the information that you read.

Track 64

Fish Populations

Most people assume that fishing unavoidably decreases fish populations in exploited areas. However, many scientists have been surprised to find that this is not always the case. In reality, fishing can have varying effects upon fish populations, even serving to increase fish populations to dangerous levels. One study recently found that fishing often leads to a cycle that occurs in two stages.

During the first stage, populations grow rapidly as fishermen target older fish rather than young fish. Older fish are more desirable to fishermen because they are larger. In fact, some governments pass laws saying that fish that are under a certain size must be released back into the water. Young fish reproduce at faster rates than older fish. As a result, in a short period, the population of young fish mushrooms. Very quickly, the rapid increase in fish population puts a strain on natural resources.

At this point, the fish population begins to decline. With older, larger fish gone, the population becomes unstable. For one, as food resources decrease, many fish simply die of starvation. In addition, the fish population finds itself unable to grow. Gone is the stability afforded by older fish, which generally provide fewer but stronger offspring. With those larger fish gone, most new offspring are considerably weaker. Thus, fish populations are further decreased by the lack of fit offspring. As a result—as is the case with the Atlantic Swordfish—the entire fish population decreases, and the remaining fish are weaker than they had been previously. As the few remaining fish grow into adulthood, the cycle begins again.

exploited:

used in a way that takes as much as possible from something

desirable:

having pleasing qualities

mushroom:

to grow rapidly

natural resources:

food and other substances important to a population but not man made

starvation:

a situation in which something dies because it has no food

How Fishing Causes Growth and Decline in Fish Populations

Step 1:



Step 2:

Directions: Complete the table by matching the phrases below. Select the appropriate phrases from the answer choices and match them to the event to which they relate. TWO of the answer choices will NOT be used. ***This question is worth 3 points.***

Events in Fish Population	Statements
Population growth	<ul style="list-style-type: none"> • • •
Population decline	<ul style="list-style-type: none"> • •

Answer Choices

- (A) causes the ecosystem to be overrun with young fish
- (B) allows small fish to deplete natural resources
- (C) encourages the government to place restrictions on fishing
- (D) causes many larger fish to die of starvation
- (E) leads to the weakening of fish offspring
- (F) caused the Atlantic Swordfish to become extinct
- (G) prevents many fish from growing into adulthood

Fill in the blanks to complete the summary.

The passage discusses how fishing in _____ areas does not always decrease fish populations. Older, larger fish are more _____ for fishermen to catch. Then young fish reproduce more quickly than the older fish. The population of these young fish _____. This immediately puts a strain on natural resources. There is not enough food, and many fish die of _____.

06 Environmental Science

Read the following passage. Then fill in the diagram with the information that you read.

Track 65

African Dust

Coral are small, colorful marine organisms that form the basis of many marine ecosystems. They provide a home to millions of small fish. They are also extremely fragile and can be damaged easily. Coral loss can lead to the collapse of entire marine communities. Accordingly, when coral in the Caribbean Sea began to die inexplicably, scientists were worried. They couldn't figure out what was killing the coral. When two scientists theorized that the coral was dying because of dust that had blown about 3,000 miles from Africa, many found this claim ridiculous. However, many scientists now believe that this is, in fact, a leading cause of coral death in the Caribbean.

Scientists first linked African dust to coral loss when they realized that the coral began to die shortly after the dust was created in Africa. In the 1970s, many parts of Africa were plagued by a long drought. The loose, dry soil became dust and was easily picked up by strong winds called trade winds. According to scientists, about a billion tons of dust is transferred across the Atlantic Ocean in this way each year. After a five day journey, the dust is deposited into the water in the Caribbean Sea. Yet, to these scientists, the questions still remained as to how the dust caused the death of coral.

This led scientists to study the dead coral in more detail, at which point they discovered the presence of a fungus that was known to be fatal to the coral. The scientists found that dead coral from the Caribbean Sea contained a fungus called aspergillus. Aspergillus has been known to infect many plants and even humans. Indeed, in this case, it seemed that it was killing the coral. In order to test his theory, the scientist injected the fungus into the live coral. Not much later, the coral injected with the fungus died as well. Later, when scientists took samples of the dust from Africa, they found that it contained large amounts of the same fungus. Additionally, DNA studies conducted afterward showed that the aspergillus found in the Caribbean Sea was identical to that found in African dust.

fragile:
easily broken or destroyed

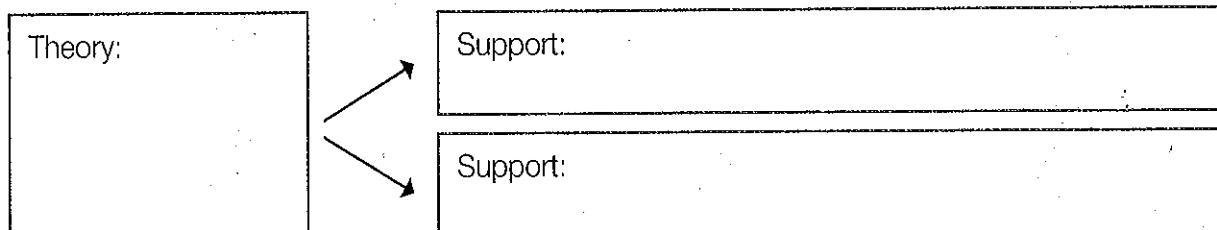
accordingly:
as a result of something else

inexplicably:
incapable of being explained

trade winds:
a pattern of winds that blow continuously throughout the year

identical:
the same

The Effect of African Dust on Caribbean Coral



Directions: Complete the table by matching the phrases below. Select the appropriate phrases from the answer choices and match them to the period of discoveries to which they relate. TWO of the answer choices will NOT be used. **This question is worth 3 points.**

Evidence That African Dust Kills Coral	Statements
Early discoveries	<ul style="list-style-type: none"> • •
Later discoveries	<ul style="list-style-type: none"> • • •

Answer Choices

- (A) found that the coral began to die after being covered by dust
- (B) learned that dust was carried to the Caribbean via trade winds
- (C) proved that aspergillus commonly infects corals around the world
- (D) used DNA tests to show that aspergillus originated in Africa
- (E) showed that coral injected with aspergillus quickly died
- (F) discovered that African soil turned to dust because of a lack of moisture
- (G) connected the aspergillus in the Caribbean to the dust in Africa

Fill in the blanks to complete the summary.

Coral is very _____ and can easily be damaged. If coral dies, whole marine communities can die, too. Accordingly, scientists get very worried when this happens. When coral began to _____ die in the Caribbean Sea, scientists studied why. They found that dust blown into the sea by _____ was the problem. The dust was full of a deadly fungus that killed the coral. The dust came from Africa and was _____ to dust found in the sea.

Vocabulary Review 3

Instructions: Choose the best word or phrase to complete each sentence.

1. The product's high price _____ its few benefits.

(A) practices
(B) adheres
(C) negates
(D) pervades

2. The group had to _____ a huge desert to reach its destination.

(A) traverse
(B) prohibit
(C) threaten
(D) balance

3. The company's offensive ad caused a _____ in the city.

(A) whisker
(B) stir
(C) dose
(D) boundary

4. The accountant _____ the numbers in the book.

(A) dissipated
(B) mushroomed
(C) exposed
(D) recorded

5. The _____ lived in the southern areas of Iceland.

(A) flicker
(B) channel
(C) starvation
(D) tribe

6. After its first plan failed, the group _____ a new, better plan.

(A) formulated
(B) prevented
(C) manipulated
(D) filtered

7. Magnets can be used to _____ metal hidden underground.

(A) sink
(B) detect
(C) provoke
(D) depict

8. Special exercises can be used to _____ weak muscles.

(A) strengthen
(B) pervade
(C) disrupt
(D) correlate

Instructions: Choose the word or phrase closest in meaning to the underlined word(s) in each sentence.

9. Because the city was built along a popular ancient trade route, it became large and wealthy very quickly.

(A) rumored
(B) medieval
(C) worrisome
(D) prosperous

10. Language is an obstacle for many people traveling.

(A) hoof
(B) mobility
(C) barrier
(D) soot

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11. The fire caused a decrease in the park's attendance.
- reduction
 - emission
 - reign
 - sarcasm
12. The new manager led to an extreme increase in sales.
- reserved
 - desirable
 - drastic
 - antique
13. The elephant's long trunk is a helpful trait.
- obligated
 - favorable
 - suited
 - devastating
14. Global warming may have many unexpected consequences.
- unforeseen
 - precise
 - unified
 - impaired
15. The lack of light in the room made Lisa nervous.
- absence
 - stroke
 - approach
 - platform

Instructions: Write the missing words. Use the words below to fill in the blanks.

capable established extensive
incidence viciously

A typhoon is a violent storm that is

16. _____ of causing 17. _____ damage to cities located along coastlines. Small farming towns and villages 18. _____ in lowlands may be in particular danger when typhoons hit. High winds and flooding may 19. _____ wipe out such towns. In the near future, scientists believe the 20. _____ of typhoons will rise as a result of global warming.

Instructions: Match the words that are similar in meaning.

- | | |
|-------------|---------------|
| 21. empire | (A) important |
| 22. occur | (B) severe |
| 23. drastic | (C) happen |
| 24. crucial | (D) complete |
| 25. finish | (E) kingdom |

Mini Test 3

01 Biology

Read the passage and answer the questions.

Track 66

Chemical Senses

Every day, people use their senses to navigate the world. However, not all of the senses are created equally. Unlike the senses of vision, hearing, and touch, some senses depend on receptors that are stimulated by chemical molecules. These are called chemical senses. Humans have two chemical senses: taste and smell.

The sense of taste, called the gustation, is activated when the chemicals found in the food come into contact with receptor cells in the mouth. This occurs because most of the receptor cells for taste are found on the tongue rather than elsewhere in the mouth. These receptors are called taste buds. Other taste receptors are located on the top of the mouth and in the throat but are far fewer in number than those on the tongue. There are different types of taste buds for different flavors. For example, some are able to taste bitterness or sourness. These are the most sensitive taste receptors, possibly because bitter or sour foods are more likely to be poisonous or otherwise not suitable for eating. Other receptors identify salty or sweet flavors. Finally, some receptors in the mouth perceive savory flavors.

The sense of smell, called the olfaction system, is also activated by chemical molecules. The receptors for olfaction are located in the nose. The human nose contains more than five million receptors that send signals to the brain about the odors it comes into contact with. The type of odor perceived depends on the shape of the molecule. Unlike the tongue, there are up to 400 different types of receptors, each capable of sensing a different odor. While some receptors are dedicated to detecting certain odors, other receptors can even tell how strong an odor is.

- ▶ **receptor** a type of cell that responds to stimuli from the senses
- ▶ **molecule** a small unit made up of one or more atoms

Directions: An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the TWO 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. **This question is worth 2 points.**

The chemical senses of the body are activated by chemical reactions.

Answer Choices

- (A) The senses of vision and hearing are activated by chemicals.
 - (B) Chemical molecules allow a person to perceive a chemical sense.
 - (C) Gustation depends on taste buds that are stimulated by chemicals in food.
 - (D) There are taste receptors on the tongue and parts of the throat.

02 Anthropology

Read the passage and answer the questions.

Track 67

On Two Feet

Studying fossils helps scientists understand how humans evolved. By researching bones and fragments, they learn about when and why humans developed certain features. However, one feature that scientists have struggled to explain is why humans began to walk on two feet. There are several theories that attempt to prove the cause of humans adopting **bipedalism**.

The first theory is that early humans, called hominins, began to walk on two feet in order to carry their children around. Scientists believe that at a certain age, the young hominins were unable to hold onto their parents. Adult hominins were forced to evolve in order to protect their young. By walking on their feet rather than on all fours, their arms would be free to carry objects. Some scientists, however, suggest that this cannot be the case. Examinations of the body type of early humans show that carrying objects in this way would require a large amount of energy. Additionally, scientists have learned that the young hominins were able to grip with both their arms and their feet. This means that they could hold on to the back of their parents and didn't need to be carried.

Another theory for why humans began to walk upright is that bipedalism made it easier for them to move in trees. According to this theory, bipedalism developed not in hominins but in the more distant relative of the humans, the orangutan. Scientists developed this theory when they observed that in the wild, orangutans can walk on two feet as well as humans. They realized that orangutans could reach up to the highest branches of trees by standing up. Further examinations of early humans, moreover, suggest that they lived in forests. This links humans to trees and may explain why humans became bipeds.

► **bipedalism** the ability to use two feet to move around

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An:
(A)
(B)
(C)
(D)
(E)
(F)
(G)

Directions: Complete the table by matching the phrases below. Select the appropriate phrases from the answer choices and match them to the theories to which they relate. TWO of the answer choices will NOT be used. **This question is worth 3 points.**

Theories	Statements
Transport of children	• • •
Movement	• •

Answer Choices

- (A) Children could not grip their parents.
- (B) Early humans may have lived in trees.
- (C) Wild orangutans can walk on two feet.
- (D) Parents were forced to evolve.
- (E) Humans became bipeds before other apes.
- (F) It would take more energy to carry objects this way.
- (G) Orangutans waste energy by walking upright.

