Lesson 1  Part 1: Introduction

Analyzing the Development of Central Ideas

As you read, do you wonder what the author is trying to tell you in the text? Try to figure out the central idea, or the most important point (or points) an author is trying to make about the topic. Sometimes a central idea may be stated directly, but more often it is implied. Then you must figure it out by analyzing the supporting details. These facts, examples, reasons, and other pieces of information are meant to explain and expand on the central idea.

Examine the cartoon below. Think about the central idea and its supporting details.

Paleontologists search for fossils that reveal more about creatures that lived in the past.

What central idea is shown? Circle parts of the picture and caption that support the central idea.

Study the web below that shows the central idea of the picture and details that support it.

<table>
<thead>
<tr>
<th>Central Idea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paleontologists help us learn about dinosaurs and our past.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Supporting Detail</th>
<th>Supporting Detail</th>
</tr>
</thead>
<tbody>
<tr>
<td>The dinosaur bones show the shapes of creatures from the past.</td>
<td>Studying fossils reveals clues about creatures that lived in the past.</td>
</tr>
</tbody>
</table>

As a good reader, make sure you figure out how the supporting details work together to develop the central idea in the text. This will help you understand each important point the author wants to make.
Read the first two paragraphs of an account about deep-sea divers.

Deep-Sea Treasure Hunters by Ramona Rivera

Deep-sea diving is a dangerous but fascinating activity. Some people dive for fun or sport, and some make a career out of hunting for sunken treasure. These types of career divers fall into one of two categories: those who want to study their discoveries and those who want to sell the treasures they find.

The divers who study sunken treasures are concerned with preservation of the sites. These divers often locate, map, and study shipwrecks. When they find a site, the divers are interested in using the information that the treasure provides to form a story about the ship that wrecked. By studying artifacts such as coins or jewelry found at a site, these divers learn many things about the lives of the ship’s passengers. They also learn more about the cargo and the daily lives of the sailors aboard the ship. Sometimes they even learn why the ship sank.

(continued)

Explore how to answer these questions: “What is the central idea of paragraph 2? What details are given to support it?”

The author describes two career paths: deep-sea treasure diving for money, and deep-sea treasure diving for gathering information. Which career path is described in paragraph 2? How do the details help you learn more about it?

Study the account to figure out the central idea and supporting details in paragraph 2. Then complete the idea web below. Add more supporting details if necessary.

<table>
<thead>
<tr>
<th>Central Idea</th>
</tr>
</thead>
<tbody>
<tr>
<td>The goal of some deep-sea divers is to . . .</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Supporting Detail</th>
</tr>
</thead>
<tbody>
<tr>
<td>The divers study artifacts, like jewelry and coins.</td>
</tr>
</tbody>
</table>

Work in a group and compare your web with your classmates’. Are your supporting details similar? Discuss how you chose each detail. Revise your web as needed, but remember that your answers can vary from your classmates’ and still be correct.
Continue reading about deep-sea treasure hunters. Use the Close Reading and the Hint to help you answer the question.

(continued from page 4)

The deep-sea divers pursuing profit must carefully research their sites to make sure it is legal to take artifacts from the location. They must also take measures to preserve the artifacts so that they don't corrode and lose value once they are recovered. For these deep-sea divers, the measure of their success is the dollar value of the treasure they find.

Whether deep-sea divers wish to study treasure or collect it, divers must obey the laws, dive in teams, and be careful at all times. We must respect the power and mystery of our oceans if we hope to uncover their many hidden treasures.

Circle the correct answer.
Which sentence provides a supporting detail for the idea that we must respect the oceans and their treasures?
A. Some divers spend a lot of time searching for sunken treasures.
B. Deep-sea diving involves a great deal of physical training.
C. Divers must identify sites that are legal before they collect artifacts.
D. Profit is the main motivation for some deep-sea divers.

Show Your Thinking
Explain how the supporting details given by the author develop the central idea about divers searching for profit.

With a partner, discuss details about each of the two careers described in the account. Then analyze the author’s statement in the concluding sentence of the account.
# Lesson 12
## Greek and Latin Word Parts

### Introduction
Many English words have Greek and Latin roots and affixes.

- A **root** is a word part that contains the core meaning of the word. In the word *science*, for example, the root *sci* means “knowledge.”

<table>
<thead>
<tr>
<th>Root</th>
<th>Meaning</th>
<th>Root</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>bell</td>
<td>“war”</td>
<td>flec</td>
<td>“bend”</td>
</tr>
<tr>
<td>tract</td>
<td>“draw, pull”</td>
<td>sci</td>
<td>“knowledge”</td>
</tr>
<tr>
<td>hydr</td>
<td>“water”</td>
<td>form</td>
<td>“shape, form”</td>
</tr>
</tbody>
</table>

- An **affix** is a word part added to a root. Affixes include **prefixes**, which come before the root, and **suffixes**, which come after the root.

<table>
<thead>
<tr>
<th>Prefix</th>
<th>Meaning</th>
<th>Suffix</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>de-, dis-</td>
<td>“do the opposite”</td>
<td>-ous, -ious</td>
<td>“characterized by”</td>
</tr>
<tr>
<td>re-</td>
<td>“again, anew”</td>
<td>-ent</td>
<td>“inclined to”</td>
</tr>
<tr>
<td>con-</td>
<td>“with”</td>
<td>-able, -ible</td>
<td>“capable of, tending”</td>
</tr>
</tbody>
</table>

### Guided Practice
Read the passage. Circle the roots in the underlined words. On a separate piece of paper, write the meanings of the word parts and define the word.

My dog Sam has a **belligerent** personality. The moment he becomes **conscious** of a cat, he gives chase. No matter what I do to **distract** him, nothing works. The problem is **intractable**.

One day, Sam approached a stray cat, which raised its spiky fur, bared its teeth, and took off after **him**. Sam returned later, **dehydrated**, hot, and humble. But did Sam **reform** his behavior? No! My dog is just too **inflexible** to change his habits.
For numbers 1–4, read each sentence. Then answer the question.

1. When I bring Sam his leash for a walk, his response is effusive.
   The prefix *ef-* means “out,” and the root *fus* means “pour.” What is the meaning of *effusive* as it is used in the sentence?
   A. showing quiet pleasure
   B. showing great enthusiasm
   C. showing boredom and weariness
   D. showing confusion

2. Being a quadruped, Sam is often frustrated by my slow pace.
   The prefix *quadr-* means “four,” and the root *ped* means “foot.” What is the meaning of *quadruped* as it is used in the sentence?
   A. a four-foot-long animal
   B. a four-footed animal
   C. a four-speed bicycle
   D. a four-wheeled scooter

3. When we turn toward home, Sam reacts badly to the brevity of our outing.
   The root *brev* means “brief,” and the suffix *-ity* means “degree.” What is the meaning of *brevity* as it is used in the sentence?
   A. slowness
   B. suddenness
   C. shortness
   D. frequency

4. He sits down on the sidewalk and is tenacious about staying there.
   The root *ten* means “hold,” and the suffix *-ious* means “characterized by.” What is the meaning of *tenacious* as it is used in the sentence?
   A. happy and content
   B. full of rage
   C. unable to move
   D. unwilling to give in
Authors choose words to have a specific impact, or effect, on you. When you read, notice how particular words affect you. What do they make you think and feel? Analyzing the meaning and impact of words and phrases will help you identify the author’s tone, or attitude toward the topic.

Sometimes you’ll run into unfamiliar words or phrases that prevent you from understanding the text. When this happens, look for context clues—hints in surrounding words and phrases—to figure out what the unfamiliar words mean.

Read the descriptions in the diagram. What context clues help you figure out what dart means?

In the description pointing to the wing, the phrase dart away like a thief helps you understand that the word dart, in this context, means “move quickly.”

In the chart below, list context clues that help you understand the meaning of each word and its impact, or effect, on you.

<table>
<thead>
<tr>
<th>Word/Phrase</th>
<th>Context Clues</th>
<th>Meaning</th>
<th>Impact on Reader</th>
</tr>
</thead>
<tbody>
<tr>
<td>compound</td>
<td>made of several smaller parts</td>
<td>I picture how wasp’s eyes are made of thousands of smaller parts, each one like a tiny eye.</td>
<td></td>
</tr>
<tr>
<td>ovipositor</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The phrase dart away like a thief also conveys a humorous and playful tone. With a partner, circle other words or phrases in the descriptions that convey that tone. What is the author’s attitude toward wasps? Do you view wasps differently than you did before you read the descriptions?
Read the first three paragraphs of the following scientific account.

Don’t Let the Bedbugs Bite  
by Nick Marcus

Bedbugs are a nuisance that spread quickly, so if you find bedbugs in your home, you owe it to yourself and others to take decisive and immediate action.

The scientific name for these tiny, bloodsucking insects is *Cimex lectularius*. They’re called *bedbugs* because they mainly feed on blood at night while their hosts are asleep. They are like an army of *minuscule* vampires. Places like mattresses, couches, and chairs serve as *luxurious havens* in which thousands of them can hide snugly and safely during the day, close to a tasty food source.

The bedbug inserts a syringe-like *proboscis* through the host’s skin. It takes between three and ten minutes for the bug to drink its fill through this slender appendage. Its bite is small and painless, so the victim rarely wakes during this feeding time. Bedbugs are not known for disseminating disease, but the bumps they leave behind can become infected. Also, the saliva they release into the skin can make you itch so badly you’ll want to scratch your skin off.

Explore how to respond to this prompt: “*Use context clues to determine the meaning of each underlined word or phrase as it is used in the passage.*”

Complete the chart below, using context to determine the meaning of specific words and phrases and describe their impact on you.

<table>
<thead>
<tr>
<th>Word/Phrase</th>
<th>Context Clues</th>
<th>Meaning</th>
<th>Impact on Reader</th>
</tr>
</thead>
<tbody>
<tr>
<td>miniscule</td>
<td>“tiny, bloodsucking insects”</td>
<td>extremely small</td>
<td>I know these bugs are really, really small.</td>
</tr>
<tr>
<td>luxurious havens</td>
<td>“Places like mattresses, couches, and chairs” “in which thousands of them can hide snugly and safely” “close to a tasty food source”</td>
<td></td>
<td></td>
</tr>
<tr>
<td>proboscis</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Continue reading the account about bedbugs. Use the Close Reading and Hint to help you answer the question.

(continued from page 88)

Bedbug infestations can appear to be a blanket of crawling pinholes that cover the place where you rest. The teensy pests often hitch rides on suitcases left in hotel rooms and travel home with unwitting victims, so keep your luggage off the floor when you travel, and wash your clothes in hot water when you get home.

Use a flashlight and magnifying glass to scrutinize your mattress. If you find any evidence of bedbugs, destroy the mattress immediately and call a professional exterminator. You owe it to neighbors and fellow travelers not to spread the bedbug headache.

Circle the correct answer.

Which statement best describes the impact of the author’s word choice on the overall tone of the account?

A Phrases like *teensy pests* and *hitch rides* give the whole account a playful tone.

B Words like *rest*, *travel*, and *neighbors* give the account a comforting tone.

C The words *evidence* and *professional exterminator* are used to create a threatening tone.

D Phrases such as *blanket of crawling pinholes* express a disgusted tone, and phrases such as *destroy the mattress* convey a cautionary tone.

Show Your Thinking

Explain which words and phrases helped you figure out the intended tone of the account.

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

With a partner, discuss the words “infestations” and “scrutinize” in this part of the account. What context clues in the passage help you figure out what these words mean?
This science account likely includes some unfamiliar words and phrases. I’ll circle these words and look for context clues to help me figure out their meaning. I’ll also think about which words reveal tone.

Read the scientific account. Use the Study Buddy and the Close Reading to guide your reading.

The Goliath Beetle  

by Eleanora Inez

1. Named for the biblical giant Goliath, the Goliath beetle is the most colossal, brawniest, and heftiest kind of beetle in the world. Goliath beetles grow to a length of up to eight inches and may weigh as much as three and a half ounces. Most Goliath beetles are as large as a mouse. They have distinct vertical black bands, like the bars of a prison door, on the elytron that cover their wings. Some species may also have bright yellow, red, gray, or brown markings.

2. The Goliath beetle lives in flowers in the tropical rain forests of Africa. Goliath beetles have fearsome jaws that they use to slash, impale, and chomp food. Adult beetles primarily feed on sugary tree sap and fruit. Goliath beetles also have six powerful legs with sharp claws that can grip. The Goliath beetle uses its claws to gather food and to climb. In addition, the Goliath beetle has a pair of front and a pair of rear wings attached to the thorax segment of its body, which is between the head and its abdomen. When it flies, it sounds like the whirl of a helicopter propeller.

3. Like other kinds of beetles, the Goliath beetle undergoes a metamorphosis—a four-stage process of change. This process takes place as the beetle develops. During the first stage, a female Goliath beetle lays its eggs in rotting wood or decaying plants. Once an egg hatches, the wormlike larva feeds on the wood or plant material until it is fully grown. The larva wraps itself in a cocoon like a suit of armor to protect itself. Then the pupa lives in the cocoon during the third stage. After several months, the cocoon breaks apart. An adult Goliath beetle steps forth to find a mate, and the four steps in the life cycle of a Goliath beetle are repeated.

4. Goliath beetles are truly the giants of the insect world, and their formidable presence leaves a lasting impression on those who view them.
Use the Hints on this page to help you answer the questions.

1. Which two phrases from the account are context clues that help you determine the meaning of the word *formidable* as it is used in paragraph 4?
   - A  “black bands, like the bars of a prison door”
   - B  “bright yellow, red, gray, or brown markings”
   - C  “six powerful legs with sharp claws”
   - D  “has a pair of front and a pair of rear wings”
   - E  “steps forth to find a mate”
   - F  “are truly the giants of the insect world”

2. What does the use of the word *formidable* in paragraph 4 reveal about the author’s attitude toward Goliath beetles?
   - A  The author thinks Goliath beetles are beautiful.
   - B  The author thinks Goliath beetles are impressive.
   - C  The author thinks Goliath beetles are violent.
   - D  The author thinks Goliath beetles are ordinary.

3. Describe the overall tone of the account and the word choices the author uses to convey it. Cite at least three examples from the text to support your response.

   ___________________________________________
   ___________________________________________
   ___________________________________________
Read the article. Then answer the questions that follow.

from “Prime Time for Cicadas”
by Emily Sohn, Science News for Kids

1. If it hasn’t happened yet, it could occur any day now.
2. The first signs are little holes in the ground in yards, orchards, and fields. Then, one warm evening, big, red-eyed bugs start crawling out of the holes.
3. The next morning, thousands upon thousands of these black, winged insects, known as cicadas, cover sidewalks, mailboxes, tree branches, and roofs across certain areas of the United States. The loud throb of their alien-sounding, high-pitched screeches fills the air.
4. If you don’t like bugs, watch out. For anyone who lives in the invasion area, the cicadas are impossible to ignore, says David Marshall. He’s an evolutionary biologist and cicada expert.
5. And, if you’re caught by surprise, the experience can be pretty overwhelming. Some people find it downright creepy.

Puzzling cycles

6. Even if you don’t get to witness the great cicada awakening, it’s worth pondering the phenomenon. Despite years of research, the life cycles and habits of cicadas still present puzzles to modern science.
7. Researchers are especially interested in . . . periodical cicadas; these insects live only in this part of the world, and they appear just once every 17 years, on the dot.
8. “This is a really special phenomenon that doesn’t happen anywhere else in the world,” Marshall says.
9. All cicada eggs hatch into juveniles underground, where they go through five stages of development before emerging as adults, mating, and starting the cycle all over again. Adult periodical cicadas are about 1.5 inches long. They can neither bite nor sting.
10. On average, a population of annual cicadas spends between 2 and 8 years underground before facing the light of day. Different populations stagger their maturation, though, so that a small number hatch each year. They usually appear in the summertime. You might see just a handful in your neighborhood every year.

Prime time

11. One big mystery is why periodical cicadas wait such a long time and a particular number of years before emerging. The answer, some scientists now suggest, appears to involve weather and mathematics.
12. Periodical cicadas belong to a genus called *Magicicada*, which first appeared sometime around 1.8 million years ago. Back then, glaciers covered the land, and the climate of eastern North America was unpredictable. Sometimes summers were warm. Sometimes they were cold.
13. Juvenile *Magicicada* won’t even crawl out of the earth until the soil reaches 64 degrees F., Marshall says. After that, they need consistently warm temperatures, usually above 68 degrees F., to survive.
By evolving to stay underground as long as possible, some experts say, cicadas reduced their chances of emerging during a particularly cold summer.

In one study, researchers from Tennessee and Arkansas looked at what would happen if there were one dangerously cold summer every 50 years for 1,500 years. Their mathematical model showed that cicadas with a life cycle of 7 years had only an 8-percent chance of surviving. With an 11-year cycle, survival jumped to 51 percent. At 17 years, cicadas had a 96-percent chance of living.

So, staying underground longer is better. In fact . . . cicadas live longer than almost any other insect.

Multiple breeding

Why do periodical cicadas live precisely 13 or 17 years?

Both 13 and 17 belong to a special class of numbers called primes. This means that the numbers can be evenly divided only by themselves or the number 1. The first few prime numbers are 2, 3, 5, 7, 11, 13, 17, 19.

Mathematicians spend a lot of time trying to understand prime numbers. Cicadas somehow understand primes instinctively. What’s more, the insects seem to know how to count.

The fact that 17 and 13 are primes reduces the chances of interbreeding among different populations of 17- and 13-year cicadas, Marshall says.

Multiples of prime numbers are unlikely to overlap with multiples of other prime numbers. So, a cicada population that hatches every 2 or 5 or 7 years will hardly ever hatch at the same time as a population that hatches every 13 or 17 years. And the 13- and 17-year cicadas will emerge at the same time only once every 221 years.

If populations don't hatch at the same time, they can't mate with each other, so their genes remain distinct. That's important because genes help determine the length of the insect's life cycle. If a 5-year cicada were to mate with a 17-year cicada, for example, the length of the cycle would be different every generation. . . .

If all of this puzzles you, you're not alone. Scientists have lots of questions, too. “It's so difficult to explain this kind of thing,” Marshall says. “It's such a remarkably complex species.”

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1 Read this sentence from paragraph 3.

The loud throb of their alien-sounding, high-pitched screeches fills the air.

What does the author's word choice suggest about the sound that cicadas make?

A It is so fascinating that everyone should hear it.

B The sound is breathtakingly rhythmic and musical.

C The noise is both awful and annoying.

D The screeches are dangerous enough to lead to hearing loss.
2. Read this sentence from paragraph 7.

Researchers are especially interested in . . . periodical cicadas; these insects live only in this part of the world, and they appear just once every 17 years, on the dot.

Which phrase from the sentence helps you figure out the meaning of *periodical*?

A. are especially interested
B. these insects live only
C. in this part of the world
D. just once every 17 years

3. Why do you think the author chose to use the words *prime time* in the title?

A. to reveal her knowledge about prime numbers and cicada instincts
B. to focus on the importance of the insect’s well-timed life cycle
C. to highlight how researchers solved a puzzling mystery about the insect
D. to emphasize that cicadas must emerge in the evening in order to survive

4. Describe the tone of the article and how the author’s choice of words creates it. Cite at least two specific words and phrases chosen by the author to support your answer.

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Self Check

Go back and see what you can check off on the Self Check on page 86.
Commander Suni Williams

by Margo Carlin

1. As 5-year-old Sunita “Suni” Williams watched Neil Armstrong’s fascinating moon walk on television, she thought, “That’s what I would like to do.” While she never thought of moon walking as a realistic career goal, Williams’ story proves that we can’t always know where our path is going to lead us. If we believe in ourselves, though, we’ll end up in the right place.

2. Williams’ career path was far from predictable. She says she was just an “okay” high school student. Because her brother had gone to the U.S. Naval Academy, she was drawn there, too.

3. Williams graduated from the Naval Academy and trained to become a Navy helicopter test pilot. Listening to a former astronaut talk about flying a helicopter as preparation for flying a moon lander, a light bulb went on in Williams’s head. It dawned on her that her helicopter training could be her ticket to space. She realized: “The only one who’s telling me I’m not going to be an astronaut is me.”

4. Williams eventually trained to become a member of the International Space Station crew, where she served as flight engineer and set a new record for women in space. Another first: She “ran” the Boston Marathon—on a space station treadmill.

5. Williams believes there is a message for young people in learning about the twists and turns that led to her space station adventure. “Maybe you want something, but you get something else. But if you make the best of it, things sorta work out.”

As I read, I’ll think about the central ideas the author is telling me about Suni Williams. Why is she famous? What details about her life does the author want to share?

Close Reading

What does Suni say about why she hadn’t yet become an astronaut? Underline the quote in paragraph 3.

Reread paragraph 1. Find and star (*) a sentence that gives a central idea about Suni Williams. Then underline sentences with details that support this idea.
Lesson 1

Hints

Which choice matches one of the central ideas from the previous page?

Which sentence tells something about Williams not believing in herself?

Which central idea did you choose in the second Close Reading activity?

Use the Hints on this page to help you answer the questions.

1. Which sentence best captures a central idea of the biography?
   A. Career paths are not always easy to identify and follow.
   B. Suni Williams did not face any difficult challenges in her career.
   C. The career path chosen by Suni Williams was very predictable.
   D. People should never change their career path.

2. Which sentence from the biography best captures a second central idea of the text?
   A. “She says she was just an “okay” high school student.”
   B. “It dawned on her that her helicopter training could be her ticket to space.”
   C. “The only one who’s telling me I’m not going to be an astronaut is me.”
   D. “Williams eventually trained to become a member of the International Space Station crew, where she served as flight engineer and set a new record for women in space.”

3. Describe one central idea about Suni Williams’ life. List at least three details from the text that support this idea.

   ____________________________________________________________
   ____________________________________________________________
   ____________________________________________________________
   ____________________________________________________________
   ____________________________________________________________
   ____________________________________________________________
Lesson 11
Using Context Clues

Introduction
When you come across an unfamiliar word, look for context clues—nearby words that hint at the meaning of the word. Study these four types of context clues.

<table>
<thead>
<tr>
<th>Context Clue</th>
<th>Signal Words</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Restatement</td>
<td>or, in other words, that is to say</td>
<td>Women’s rights advocates, or supporters, met in Seneca Falls, New York, in 1848.</td>
</tr>
<tr>
<td>Example</td>
<td>like, such as, for example, for instance</td>
<td>Leaders often faced fierce opposition such as name-calling, disrespect, and even threats of harm.</td>
</tr>
<tr>
<td>Cause and Effect</td>
<td>as a result of, because, and thanks to</td>
<td>Because of these leaders’ efforts to gain equal rights, women secured the right to vote in 1920.</td>
</tr>
<tr>
<td>Comparison and Contrast</td>
<td>also, like, as well, but, yet, however, although</td>
<td>Proponents of women’s rights, like those who support other causes, are committed to their beliefs.</td>
</tr>
</tbody>
</table>

Other clues to a word’s meaning are the word’s position in the sentence and its part of speech.
- Below, the position of cause after can shows it is a verb, “to make something happen.”

  Stirring speeches can cause people to change their minds about an issue.

- Below, the position of cause after the shows it is a noun, meaning “a goal or issue.”

  Elizabeth Cady Stanton dedicated herself to the cause of women’s rights.

Guided Practice
Underline a context clue that helps you understand each underlined word. Draw a line from the clue to the word. With a partner, identify each type of clue you used.

Until 1920, suffrage, or the right to vote, was denied to women.

Some prominent figures supported the cause. For example, the famous reformer Frederick Douglass spoke out for women’s rights.

Many small meetings took place, but a convention held in Seneca Falls in 1848 helped the movement grow. Thanks to their persistence, women won the right to vote more than seventy years later.
Women’s suffrage organizations faced determined resistance from groups who argued that a woman’s place was in the home, not in the political arena. Plenty of women strongly agreed that they deserved more rights. Yet many of them still deplored the idea of women having a voice in the government.

1. What does the word **resistance** mean in the paragraph?
   - A. opposition
   - B. agreement
   - C. questions
   - D. approval

2. Which words provide a clue to the meaning of **resistance**?
   - A. “in the political arena”
   - B. “in the home”
   - C. “groups who argued”
   - D. “in the government”

3. What does the word **deplored** mean in the paragraph?
   - A. failed to understand
   - B. disapproved of
   - C. agreed with
   - D. investigated

4. Which words provide a contrast clue to the meaning of **deplored**?
   - A. “Plenty of women”
   - B. “strongly agreed”
   - C. “deserved more rights”
   - D. “having a voice”
Read the biography about a famous dancer. Then answer the questions that follow.

Martha Graham: Modern Dance Innovator

by Eva Milner

1. In the world of dance, Martha Graham is a giant. A true innovator, it was she who led the way into the brave new world of modern dance, leaving behind the constraints of classical ballet. Through her work as a dancer, choreographer, and teacher, Martha has inspired both audiences and generations of dance students. Her institute, the Martha Graham Dance Company, has produced some of the finest dancers in the world today.

2. Martha Graham was born in 1894 in a small town near Pittsburgh, Pennsylvania. Her father was a doctor who specialized in nervous disorders. He was interested in how illnesses and disorders could be revealed through the way a patient’s body moved. Martha also believed in the body’s ability to express what is inside. She would channel this belief through dance, not medicine, however.

3. Martha was an athletic child, but it wasn’t until after seeing the ballet dancer Ruth St. Denis in her teens that she became interested in dance. Martha was so inspired by the performance that she enrolled at an arts college where she studied theater and dance. After graduating in 1916, she joined the Denishawn School, a dance company founded by Ruth St. Denis and Ted Shawn to teach both American dance and world dance.

4. Though Martha began her eight years at Denishawn as a student, it wasn’t long before she became a teacher and one of the school’s best-known performers. It was during this time that Martha costarred with Ted Shawn in “Xochital,” a duet that Ted created specifically for Martha. In this ballet, Martha played the role of an Aztec maiden attacked by an Aztec emperor. Her wildly emotional performance brought her critical acclaim.

5. By 1923, however, Martha felt ready to try new things. She took a job dancing in a vaudeville show in New York City. Here Martha had the opportunity to create her own dances. While there was some room for creativity, she still had to please the audience. Soon she longed for someplace she could take her experimental dance techniques even further. Her search led her to a job teaching at the Eastman School of Music, where she had complete control over her classes and the dance program. This was her chance to truly experiment.

6. Martha felt that classical ballet focused too much on fluidity and grace and ignored deeper, darker emotions and themes. At Eastman, Martha began to use jerky, trembling movements and falls to express ideas and feelings. She developed a fresh, new method of muscle control she called “contraction and release.” Through this method, a dancer creates movement by first contracting a muscle and then allowing the movement to flow as the muscle relaxes. This method of muscle control gives the dancer’s motions a hard, angular look. This was a big change from the dance style found in classical ballet.

7. Audiences did not always appreciate Martha’s style. They were used to the more graceful, flowing motions of ballet dancers, and Martha’s choppy, angular style was shocking to them. Many reviewers criticized her for dancing in an “ugly” way. During her first performance in Paris, she and her dancers were booed by the audience.

8. In 1926, Martha formed her own dance company, the now-famous Martha Graham School for Contemporary Dance. She brought in several of her students from the Eastman school and also began...
working with Louis Horst, the musical director from her days at Denishawn. Under Horst’s influence, Martha began to use music by modern composers, rather than music from the eighteenth and nineteenth centuries. This was yet another way in which Martha’s work departed from classical ballet.

9 Many of Martha’s dances explored emotional and psychological themes. One example is her solo piece “Lamentation.” In this dance, a grieving figure sits alone on a bench and moves to a mournful piano score. The dancer wears a tube of stretchy, purple fabric. Only the dancer’s head, hands, and feet show. The movements of the dancer’s body within the fabric create a sort of moving sculpture. The dancer represents the raw emotions of grief.

10 Martha was also interested in exploring social issues and political themes. Her dance “Deep Song” was a statement about the Civil War in Spain, and “Chronicle” looked at the menace of fascism and war in Europe. This second dance was created the same year Martha had turned down an invitation to the 1936 Olympic Games being held in Germany. Both the dance itself and her refusal to attend the games expressed Martha’s integrity and desire to highlight important political issues.

11 Martha Graham’s career spanned her entire life. Health issues forced her to quit dancing at the age of 76, but she continued teaching and creating works until her death in 1991. In her lifetime, she created 181 masterpieces of dance, which continue to inspire dancers and audiences alike.

---

**Answer the questions. Mark your answers to questions 1–3 on the Answer Form to the right.**

1 Study the idea web below.

```
Central Idea

<table>
<thead>
<tr>
<th>Supporting Detail</th>
<th>Supporting Detail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Used music by modern composers</td>
<td>Incorporated jerky, angular movements</td>
</tr>
</tbody>
</table>
```

Which sentence completes the idea web?

A Classical ballet focused on flowing, graceful movements.
B Martha’s dance style was very different from classical ballet.
C Martha was one of the best dancers in America.
D Louis Horst was the musical director at Denishawn.
Lesson 1

Part 5: Independent Practice

2 Which sentence best supports the central idea that Martha Graham was an innovator?
   A “While there was some room for creativity, she still had to please the audience.”
   B “Her search led her to a job teaching at the Eastman School of Music, where she had complete control over her classes and the dance program.”
   C “She developed a fresh, new method of muscle control she called ‘contraction and release.’”
   D “In 1926, Martha formed her own dance company, the now-famous Martha Graham School for Contemporary Dance.”

3 Which sentence could be added to best support the idea that Graham was an innovator?
   A By 1927, Graham was working full-time as a dancer and choreographer.
   B Graham was the first choreographer to fully collaborate with other modern artists.
   C During the Depression in the 1930s, Graham sewed her dance costumes herself.
   D Graham was given the title “Dancer of the Century” by Time magazine in 1998.

4 Describe the central idea of paragraphs 9 and 10. Identify at least two details the author used to develop that central idea.

   _____________________________________________
   _____________________________________________
   _____________________________________________
   _____________________________________________
   _____________________________________________
   _____________________________________________
   _____________________________________________
   _____________________________________________

Self Check Go back and see what you can check off on the Self Check on page 2.
Lesson 3  Part 1: Introduction

Citing Evidence to Make Inferences

Theme: The Competitive Spirit

When you analyze something, you examine its parts to see how they work together. For example, you might analyze how the parts of a bicycle work to help a person move forward.

Reading involves analyzing, too. When you analyze a text, you sometimes look at what the text says explicitly, or directly. “The crowd clapped and cheered wildly when the home team won” is an example of explicit information because you know what happened and why. Other times, though, you must make an inference to figure out what the text is really saying. An inference is a reasonable guess based on textual evidence and what you already know.

Find the slowest runner in the picture below. Is he sad about losing? How can you tell?

Circle details in the picture that support an inference that the runner isn’t sad about losing. Then complete the chart below to describe what details support this inference.

<table>
<thead>
<tr>
<th>Text Evidence</th>
<th>+</th>
<th>Background Knowledge</th>
<th>=</th>
<th>Inference</th>
</tr>
</thead>
<tbody>
<tr>
<td>• The expression on the runner’s face is ______________</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>A person who loves a sport also enjoys participating in it.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>The runner is just happy to compete. Competing is more important to him than winning.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• This runner says ______________</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

To get the most out of your reading, you must analyze texts to understand what they say directly and make inferences about what they say indirectly. When you find evidence to make and support inferences, you’ll find you won’t get stuck as often trying to figure out what a text is saying—like when a bike is stuck in gear and can’t move forward.
Read the first three paragraphs of an article that showcases Michael Jordan.

The Flu Game  by Maureen McBride

Game 5 of the 1997 basketball playoffs should have been the game that the Chicago Bulls lost. It should, in fact, have marked the Utah Jazz’s first NBA championship win. Michael Jordan, the Bulls’ star player, had spent the previous 24 hours bedridden and dehydrated with what doctors had diagnosed as the stomach flu. He had lost weight and had missed two key days of practice leading up to the game. It was a recipe for disaster.

But three hours before the start of Game 5, the best player in the history of basketball suited up and appeared on the court.

Though Jordan was visibly weak in the first quarter, he had scored 17 points by the second, putting the Bulls ahead at half time. However, while Jordan spent the third quarter overcome by nausea and fatigue, Utah managed to reclaim the lead.

Explore how to answer these questions: “What is Michael Jordan’s attitude toward competition? What text evidence supports your idea?”

Michael Jordan’s attitude is not stated, so you must use evidence in the text to infer what he thinks.

Look for evidence of Jordan’s feelings about competition. One detail is shown in the chart below. Write another detail in column 1. Use this information to complete the inference in the last column.

<table>
<thead>
<tr>
<th>Text Evidence</th>
<th>Background Knowledge</th>
<th>Inference</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Jordan was diagnosed with the flu before Game 5.</td>
<td>• Jordan’s team depended on him greatly. • Playing sports while sick requires determination.</td>
<td>Michael believes that competition _________________.</td>
</tr>
</tbody>
</table>

What text evidence supports the inference that Michael Jordan is a fierce competitor? With a partner, find evidence in the article that supports your answer, and write it on the lines below.

________________________________________________________________________

________________________________________________________________________
Continue reading about Michael Jordan in “The Flu Game.” Use the Close Reading and the Hint to help you answer the question.

(continued from page 20)

“In the third quarter, I felt like I couldn’t catch my wind,” Jordan said. “I was just trying to get myself through it.”

In the fourth quarter, Jordan scored 18 more points. Then, with only 25 seconds left in the game, he scored a 3-point shot, and the Bulls beat the Jazz by only two points. At the end of the game, Jordan collapsed into the arms of his teammate Scottie Pippen.

“I almost played myself into passing out just to win a basketball game,” Jordan admitted later. “If we had lost, I would have been devastated.”

Circle the correct answer.
Which sentence from the passage best supports the idea that Michael Jordan is a talented basketball player?

A  “In the third quarter, I felt like I couldn’t catch my wind,’ Jordan said. ‘I was just trying to get myself through it.’”

B  “In the fourth quarter, Jordan scored 18 more points.”

C  “Then, with only 25 seconds left in the game, he scored a 3-point shot, and the Bulls beat the Jazz by only two points.”

D  “I almost played myself into passing out just to win a basketball game,’ Jordan admitted later.”

Show Your Thinking
Michael Jordan is a dedicated basketball player. Find and write down a sentence from the passage that supports this statement. Then explain your answer.

_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________

With a partner, make an inference about why Michael Jordan collapsed into Scottie Pippen’s arms. Support your inference with evidence from the text and background knowledge.

Hint
Look for the choice that shows Jordan’s talent, not his dedication or his luck.
Read the following historical account. Use the Study Buddy and the Close Reading to guide your reading.

Race to Reach the South Pole: Scott vs. Amundsen by Alarik Fjelstad

1. In 1911, Englishman Robert Falcon Scott and Norwegian Roald Amundsen raced to reach the South Pole first. Scott, captain of the Terra Nova, had nearly made it to the South Pole seven years earlier. He was confident he would succeed this time. Scott publicly announced that he would be using the latest in technology: motor sleds. He recruited scientists, sailors, and even a paying guest who insisted on bringing ponies to the coldest place on Earth.

2. Amundsen worried that competitors might try to prevent his attempt to reach the South Pole. He refused to share his dream with anyone, including his shipmates. Amundsen finally told his men where they were going midway through the Atlantic. Though he told them they could quit, they decided to continue the journey with him. They were all veteran Arctic explorers trained to use skis and sled dogs. At this time, Amundsen sent Scott an unsettling telegram telling him he was on his way to Antarctica.

3. Both vessels landed in Antarctica in January of 1911, but Amundsen set up his base camp deep inland on ice, while Scott made camp at the shoreline. With expert planning, Amundsen and his crew arrived at the South Pole with sled dogs on December 15, 1911. Meanwhile, Scott's motor sleds failed to work in the minus 40 degree Celsius cold, and the ponies died and were eaten by Scott's crew. Scott arrived at the Pole 33 days after Amundsen and was shocked to find the Norwegian flag. Disillusioned and weak, Scott and his men died of starvation on the return trip, just 11 miles from their nearest supply station.
Use the Hints on this page to help you answer the questions.

1 A student makes the following inference about Captain Amundsen:

   Amundsen was a very secretive person.

Which sentence from the text best supports this inference?

A “. . . Admundsen set up his base camp deep inland on ice, while Scott made camp at the shoreline.”

B “Admundsen finally told his men where they were going midway through the Atlantic.”

C “At this time, Amundsen sent Scott an unsettling telegram telling him he was on his way to Antarctica.”

D “Scott arrived at the Pole 33 days after Amundsen and was shocked to find the Norwegian flag.”

2 Based on the text, which of the following statements explains why Scott and his men were unsuccessful?

A Scott and his men were not truly prepared for the trip’s hardships.

B Scott planned to use outdated technology on the trip.

C The English expedition camped at the shoreline instead of inland.

D They were unfamiliar with the challenge of Arctic exploration.

3 Explain why Amundsen succeeded. Include at least two details from the text that support your inference about what led to his success.

____________________________________________________________________________________

____________________________________________________________________________________

____________________________________________________________________________________

____________________________________________________________________________________

____________________________________________________________________________________
Read this excerpt from a back-to-school speech. Then answer the questions that follow.

from “The President’s Speech to Students”

by President Barack Obama

1 You’re this country’s future. You’re young leaders. And whether we fall behind or race ahead as a nation is going to depend in large part on you. So I want to talk to you a little bit about meeting that responsibility.

2 It starts, obviously, with being the best student that you can be. Now, that doesn’t always mean that you have to have a perfect score on every assignment. It doesn’t mean that you’ve got to get straight As all the time—although that’s not a bad goal to have. It means that you have to stay at it. You have to be determined and you have to persevere. It means you’ve got to work as hard as you know how to work. And it means that you’ve got to take some risks once in a while. You can’t avoid the class that you think might be hard because you’re worried about getting the best grade if that’s a subject that you think you need to prepare you for your future. You’ve got to wonder. You’ve got to question. You’ve got to explore. And every once in a while, you need to color outside of the lines.

3 That’s what school is for: discovering new passions, acquiring new skills, making use of this incredible time that you have to prepare yourself and give yourself the skills that you’re going to need to pursue the kind of careers that you want. And that’s why when you’re still a student you can explore a wide range of possibilities. One hour you can be an artist; the next, an author; the next, a scientist, or a historian, or a carpenter. This is the time where you can try out new interests and test new ideas. And the more you do, the sooner you’ll figure out what makes you come alive, what stirs you, what makes you excited—the career that you want to pursue. . . .

4 So that’s a big part of your responsibility, to test things out. Take risks. Try new things. Work hard. Don’t be embarrassed if you’re not good at something right away. You’re not supposed to be good at everything right away. That’s why you’re in school. The idea, though, is that you keep on expanding your horizons and your sense of possibility. Now is the time for you to do that. And those are also, by the way, the things that will make school more fun.

5 Down the road, those will be the traits that will help you succeed, as well—the traits that will lead you to invent a device that makes an iPad look like a stone tablet. Or what will help you figure out a way to use the sun and the wind to power a city and give us new energy sources that are less polluting. Or maybe you’ll write the next great American novel. . . .

6 But I also want to emphasize this: With all the challenges that our country is facing right now, we don’t just need you for the future; we actually need you now. America needs young people’s passion and their ideas. We need your energy right now. I know you’re up to it because I’ve seen it. Nothing inspires me more than knowing that young people all across the country are already making their marks. They’re not waiting. They’re making a difference now. . . .
There are students like Will Kim from Fremont, California, who launched a nonprofit that gives loans to students from low-income schools who want to start their own business. Think about that. So he’s giving loans to other students. He set up a not-for-profit. He’s raising the money doing what he loves—through dodgeball tournaments and capture-the-flag games. But he’s creative. He took initiative. And now he’s helping other young people be able to afford the schooling that they need.

The point is you don’t have to wait to make a difference. Your first obligation is to do well in school. Your first obligation is to make sure that you’re preparing yourself for college and career. But you can also start making your mark right now. A lot of times young people may have better ideas than us old people do anyway. We just need those ideas out in the open, in and out of the classroom.

When I meet young people like yourselves, when I sit and talk to [a student at this school], I have no doubt that America’s best days are still ahead of us, because I know the potential that lies in each of you. Soon enough, you will be the ones leading our businesses and leading our government. You will be the one who are making sure that the next generation gets what they need to succeed. You will be the ones that are charting the course of our unwritten history. And all that starts right now—starts this year.

Which of these statements is not supported by the remarks made in President Obama’s speech?

A Work hard in school and try out new possibilities.
B While in school, acquire a variety of skills and interests.
C Figure out different ways to become energetic leaders.
D Explore a wide range of ideas and career options.

What evidence from the speech best shows how students can prepare themselves for the future?

A Students need to act responsibly during their time in school.
B Students should focus on courses that will help them earn good grades.
C Students should realize that they will not excel at everything that they try.
D Students need to try new possibilities to discover what excites them.
Lesson 3

Which sentence from the passage best supports the idea that President Obama thinks students must take responsibility for their own futures?

A  “Now, that doesn’t always mean that you have to have a perfect score on every assignment.”

B  “Down the road, those will be the traits that will help you succeed, as well—the traits that will lead you to invent a device that makes an iPad look like a stone tablet.”

C  “Your first obligation is to make sure that you’re preparing yourself for college and career.”

D  “Soon enough, you will be the ones leading our businesses and leading our government.”

Read the statement below, and then answer the question that follows it.

President Obama believes that creativity is a valuable trait for people to have.

Explain how you can tell that the above statement is true. Write a paragraph responding to this question. Use at least two details from the passage to support your response.

Go back and see what you can check off on the Self Check on page 2.
Lesson 22
Denotation and Connotation

Introduction
Words can have two kinds of meaning. A word's denotation is its basic meaning, or dictionary definition. A word's connotations are the feelings associated with it.

- A word or phrase can have positive, negative, or neutral connotations.

<table>
<thead>
<tr>
<th>Positive Connotation</th>
<th>Neutral Connotation</th>
<th>Negative Connotation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ian requested a glass of water.</td>
<td>Ian asked for a glass of water.</td>
<td>Ian demanded a glass of water.</td>
</tr>
</tbody>
</table>

- A word's or phrase's connotation partly depends on its context.

<table>
<thead>
<tr>
<th>Positive</th>
<th>Negative</th>
</tr>
</thead>
<tbody>
<tr>
<td>The ice-cold water was refreshing on the hot day.</td>
<td>The ice-cold water made Ian shiver.</td>
</tr>
</tbody>
</table>

When writing, choose words that will produce in your readers the feelings you want them to have.

Guided Practice
Read the sentences. Write P if the underlined word has a positive connotation. Write N if the word has a negative connotation.

1. Ian and Atsuko were contenders in the storywriting contest. _______
   Ian and Atsuko were rivals in the storywriting contest. _______

2. Atsuko was known for her mysterious plots. _______
   Atsuko was known for her bewildering plots. _______

3. Ian’s characters were ridiculous. _______
   Ian’s characters were amusing. _______

4. Ian displayed his large vocabulary. _______
   Ian flaunted his large vocabulary. _______

5. Atsuko’s main character behaved rashly. _______
   Atsuko’s main character behaved boldly. _______

6. Everyone snickered at Atsuko’s surprise ending. _______
   Everyone chuckled at Atsuko’s surprise ending. _______

Hint
Ask yourself: How does this word make me feel? If the word makes you feel good, it has a positive connotation. If it makes you feel bad, it has a negative connotation.
For numbers 1–3, choose the word that has the same denotation as the underlined word and also has the most negative connotation.

1. After school, a bunch of students gathered by the riverfront.
   A. mob
   B. crowd
   C. group
   D. collection

2. Atsuko, strolling home, was surprised to see her classmates huddled together.
   A. amazed
   B. astonished
   C. shocked
   D. astounded

3. Atsuko kept a watchful eye on her classmates as she approached them.
   A. close
   B. attentive
   C. suspicious
   D. keen

For numbers 4 and 5, choose the word that has the same denotation as the underlined word and also has the most positive connotation.

4. Ian was in their midst, so they were certainly planning something.
   A. concocting
   B. devising
   C. scheming
   D. plotting

5. Suddenly they turned toward her and announced, “You won first prize.”
   A. stated
   B. said
   C. uttered
   D. exclaimed
Read the passage. Then answer the questions that follow.

Did Franklin Really Collect Electric Fire from the Sky?

by Neve Reed

1 The story of Benjamin Franklin and his kite experiment is one that captivates people of all ages. It begins when a thunderstorm is on its way. Most of the sensible people in the area are indoors seeking shelter. But not Benjamin Franklin! He’s flying a kite with a piece of metal attached to the top. His goal: to prove that lightning is a form of electricity. The story goes that a bolt of lightning soon struck his kite, traveling down the string and charging a metal key near the end. Franklin touched the key, and the “very evident electric spark” he felt proved his theory correct.

2 This experiment is much more exciting than the idea of a scientist writing a paper at a desk or working in the laboratory. However, it’s also quite likely that it didn’t happen, at least not in the way people imagine. Evidence for this statement comes from numerous sources, including current knowledge and correspondence written by Franklin himself.

Priestley’s Account of Franklin’s Experiment

3 Joseph Priestley was the man who recounted the story of Franklin’s experiment conducted in 1752. June 15th is often cited as the date. An entire chapter of Priestley’s book, The History and Present State of Electricity with Original Experiments, is devoted to Franklin’s work on the similarities between electricity and lightning. He explains how Franklin planned to use a kite to draw “lightning from the clouds,” and gives an account of the actual experiment.

4 There are a few points that should be made about Priestley’s account. The first is that it’s not clear exactly where his information comes from. Priestley says it was obtained from the “best authority,” but then goes on to say that Franklin’s son was the only witness present during the experiment. If the information came from Franklin himself, why didn't Priestley say so?

5 The second is that a close reading of the section that describes the actual experiment does not explicitly state that the kite was struck by a bolt of lightning. He does mention thunderstorms and drawing lightning from the clouds. But is it possible that “lightning” is being used interchangeably with “electrical charges” here, an assertion that is supported by the thoughts of some modern scientists? Wouldn’t the actual dramatic lightning strike have been a focus of Priestley’s story? If, that is, it actually took place.

Franklin’s Letter

6 One of the best pieces of evidence we have comes from Franklin himself. In 1752, he wrote a letter to a friend. In it, he describes how he performed the experiment.

7 However, some believe Franklin was merely describing how he would theoretically use a kite to prove that electricity and lightning were one in the same. There are several details about the setup that would make actually performing the experiment impractical. These include flying the kite from inside a building, keeping the silk ribbon dry, and not allowing the twine to touch any portion of the door or window.
Furthermore, the letter is far from a formal description of Franklin’s hypothesis, procedure, results, and conclusions. It would seem likely that Franklin would have presented his findings to the scientific community in an official report, but there is no indication that one exists.

The Danger Factor

One of the strongest pieces of evidence against the commonly held belief that Franklin’s kite was struck by lightning is that he most likely wouldn’t have survived. This was proven through an investigation conducted on a popular television program. The analysis showed that the massive amount of electricity in a bolt of lightning could have traveled down a wet piece of twine and charged a metal key at the end. However, the chances that Franklin could have touched the metal and lived to tell others about it are slim to none. Additionally, it’s likely the scientist himself would have known the dangers of touching something that had been struck by lightning based on his previous work with electricity.

What Current Scientists Believe

Some believe that the experiment never actually took place at all. A more likely explanation based on the information available, though, is that Franklin did fly a kite a short time before a thunderstorm. The storm clouds would have contained the same static electricity found in lightning, although in much smaller amounts. These charged clouds could have produced the results described by Priestley in his well-known account. The investigation still probably wasn’t the wisest idea on Franklin’s part, but it is entirely possible that the scientist could have completed this version of the experiment and escaped unharmed.
This question has two parts. First, answer part A. Then, answer part B.

**Part A**

Which inference can you draw from “Did Franklin Really Collect Electric Fire from the Sky?”

A. The smaller amounts of static electricity in clouds before a storm actually endangered Franklin just as much as real lightning would have.

B. The idea of a death-defying experiment is thrilling, but the reality is that Franklin likely would not have risked his life for science.

C. Because he focused neither on the difficulties nor dangers of flying a kite indoors, Priestley’s account is weakened.

D. Franklin was probably more interested in making an exciting scientific story than in harnessing the true power of electricity.

**Part B**

Which of the following sentences from the passage **best** supports your answer to part A?

A. “The analysis showed that the massive amount of electricity in a bolt of lightning could have traveled down a wet piece of twine and charged a metal key at the end.”

B. “Additionally, it’s likely the scientist himself would have known the dangers of touching something that had been struck by lightning based on his previous work with electricity.”

C. “The storm clouds would have contained the same static electricity found in lightning, although in much smaller amounts.”

D. “A more likely explanation based on the information available, though, is that Franklin did fly a kite a short time before a thunderstorm.”

*Go On*
13 Based on the information in the passage, how did Priestley’s account influence some modern scientists?

A  It led them to look for an alternate meaning for a term used to describe the experiment.
B  It inspired them to seek the truth by watching the experiment on a television show.
C  It drove them to question, in general, the way that experiments are set up.
D  It convinced them that there was, in fact, no witness at all to the experiment.

14 How do the four sections with headings support the main ideas in the passage?

A  Each section offers a problem with the lightning story and an alternative solution for what might have happened.
B  Two of the sections focus on different causes for the writer’s doubt, while the other two show how it might have happened.
C  Three sections describe why the experiment probably did not occur, while the other offers a possible alternative.
D  Each section compares and contrasts different accounts of the experiment, including those of people in the past and present.

15 The author states that it is quite unlikely that Franklin’s kite experiment happened as we think. Which two sentences from the passage provide evidence for the author’s belief?

A  “The story of Benjamin Franklin and his kite experiment is one that captivates people of all ages.”
B  “However, the chances that Franklin could have touched the metal and lived to tell others about it are slim to none.”
C  “Some believe that the experiment never actually took place at all.”
D  “There are several details about the setup that would make actually performing the experiment impractical.”
E  “These charged clouds could have produced the results described by Priestley in his well-known account.”
This question has two parts. First, answer part A. Then, answer part B.

Below are three claims that one might make based on the passage.

<table>
<thead>
<tr>
<th>Claims</th>
</tr>
</thead>
<tbody>
<tr>
<td>The story of Franklin’s experiment has interested people since Franklin first described it.</td>
</tr>
<tr>
<td>Records of the lightning experiment are not reliable.</td>
</tr>
<tr>
<td>Franklin was a scientist who knew lightning strikes were dangerous.</td>
</tr>
</tbody>
</table>

**Part A**

Draw an X by the claim that is supported by the most relevant and sufficient evidence within “Did Franklin Really Collect Electric Fire from the Sky?”

**Part B**

Write down two sentences from the passage that best provide evidence to support the claim selected in part A.

First sentence: ____________________________

__________________________________________________________________________

__________________________________________________________________________

Second sentence: __________________________

__________________________________________________________________________

__________________________________________________________________________
Read the essay. Then answer the questions that follow.

The Middle of Nowhere

by Brendan Wolfe

1 Every year my dad’s family gathers up its members from the four corners of the known world and invites them home for a reunion. Home for us is a treeless patch of landscape that we have fondly dubbed the Middle of Nowhere. This is where Dad and his sisters grew up, and in addition to a patchwork quilt of corn and soybean fields, the area features an occasional rotten-wood barn and steel silo. Before I was born, my family all moved away, and at that very moment time seems to have stopped in this place. The corn and beans must have been planted by someone, but that’s the only evidence that people still live here.

2 Although we live only a few miles down the Interstate, my dad is the only one who knows for sure how to get back to his old home. Actually, it might be an exaggeration to say that he knows for sure. As often as not he gets us all lost, which is why we call it the Middle of Nowhere in the first place.

3 Anyway, this year’s reunion was a classic example. Dad piled my brother and me into our station wagon, along with folding chairs, badminton gear, and a cooler full of sandwiches, and we weighed anchor for the Middle of Nowhere. Like a captain of the high seas, he welcomed us aboard ship and then gruffly warned us to maintain our discipline lest we be forced to walk the plank.

4 “Can we use a GPS this year, Dad?” I asked. My friends’ parents used them and they never got lost.

5 “I insist that you call me captain,” Dad snapped, before indicating that all electronic directional devices were absolutely verboten.

6 “What does ‘verboten’ mean?” I asked.

7 Just then we passed an old gas station. By “old,” I mean ancient—older even than my dad. The gas pumps were candy-apple red and round at the top, and they looked nothing like they’re supposed to. (Where, for instance, are you supposed to swipe your credit card?) The main building, meanwhile, leaned a bit and to my eyes was just barely standing.

8 “This is where we used to go for a soda pop when I was a kid,” Dad said, excitedly pointing at the old wreck.

9 “Why do you say ‘soda pop’?” I asked, but Dad, as usual, ignored me. Instead, he explained that this is where we turned off the Interstate.

10 Soon we were deep amongst the tall rows of corn. At the bottom of a hill, it was impossible to see where you were, but the landscape rolled, like the waves of an ocean. When you crested a wave, you could see for miles.

11 “You see that crossroads?” Dad asked as the out-of-breath Pontiac finally reached the peak of a particularly steep hill. At first it looked no different from any other crossroads, whether here or anywhere else in the world. Then I noticed a slight anomaly: the dirt roads did not meet at quite a right angle. Instead, one of them arrived having had to scoot around one of those rotten-wood barns. This was Danny Flynn’s barn, apparently, and Danny Flynn had been born ornery. When the county wanted to cut its road through Danny Flynn’s property, Danny Flynn folded his arms, spat in the dirt, and said, “No, sir.” No matter how much money the county offered, the old farmer refused to move his barn. He even amended his last will and testament to make sure that no relative of his ever moved it, either.

Go On
“We only ever called him Danny Flynn,” Dad said. “Never Mr. Flynn. It just seemed more respectful somehow. We always knew he fancied your grandmother, doing odd jobs for her whenever he could. Helping her out—that was the only time the old man ever smiled, I think.”

“What do you mean ‘fancied’?” I asked.

“We’re close now,” my dad said. Past Danny Flynn’s barn we should turn right at the ball field where Dad played shortstop on Saturdays, then, after a quarter of a mile, the “old homestead,” as Dad called it, should be just over the hill. “Land ho!” Dad always called when he spied it.

As the Pontiac puffed along, however, the ball field never showed up. “Where did it go?” I wondered aloud, and then my little brother, who prefers snoozing through car trips, startled awake. “What’s going on?” he said, rubbing his eyes.

“The best-laid plans of mice and men often go awry,” Dad mumbled, pulling the car over.

When we looked at him quizzically, he admitted that we must be lost. “My memory’s not what it used to be,” he explained.

“Then why not use a map?” I snorted in disgust. Those endless stalks of green corn seemed at this point to be mocking me.

“You still don’t get it, do you?” Dad said after a long pause. “My memories are my map.”

I’m not afraid to admit that this, finally, shut me up. After all, when you’re in the Middle of Nowhere, what better than a map that tells stories?

This question has two parts. First, answer part A. Then, answer part B.

**Part A**

What does the word “ornery” mean as it is used in paragraph 11 of the essay?

- A unruly
- B grouchy
- C contrary
- D awkward

**Part B**

Which of the phrases from the essay best helps the reader understand the meaning of “ornery”?

- A “folded his arms”
- B “the old farmer refused to move his barn”
- C “We always knew he fancied your grandma”
- D “that was the only time the old man ever smiled,”
Read the partial summary of “The Middle of Nowhere.”

A father travels with his family to a family reunion. Along the way, he points out places that he remembers from his childhood. Each of these settings is accompanied by a story about people or events of his past.

Select two sentences that should be included in a summary of key ideas of the essay.

A They pass an old gas station where he used to buy soda pop.
B The son is frustrated by his dad’s unwillingness to use aids to find the way.
C The father grew up in an area called the Middle of Nowhere.
D The father may not recall the way to his childhood home, but he has no difficulty recalling the past.
E They talked about Danny Flynn who fancied the children’s grandmother.
F They all piled into the old Pontiac station wagon for the long trip.

The following statement is a conclusion based on the information in the text.

The narrator’s father is not comfortable with the fact that he does not know the area as well as he used to.

Which sentence from the essay best supports this conclusion?

A “This is where Dad and his sisters grew up, and in addition to a patchwork quilt of corn and soybean fields, the area features an occasional rotten-wood barn and steel silo.”
B “Although we live only a few miles down the Interstate, my dad is the only one who knows for sure how to get back to his old home.”
C “‘This is where we used to go for a soda pop when I was a kid,’ Dad said, excitedly, pointing at the old wreck.”
D “‘The best-laid plans of mice and men often go awry,’ Dad mumbled, pulling the car over.”
25. Which statement best expresses the narrator’s point of view at the end of the essay?
   A. He is embarrassed by his father’s childhood home.
   B. He appreciates the opportunity to learn more about his father.
   C. He worries that his father is aging and his memory is failing.
   D. He is amused by his father’s reflections on the past.

26. Why do the narrator and his family refer to his dad’s childhood home as “the Middle of Nowhere”? Use two details from the essay to support your response.
Read the article. Then answer the questions that follow.

The Bone Wars

by J. R. Hill

1 If you’ve spent any time in grocery checkout lines, you’ve probably seen magazines with pictures of celebrities behaving badly toward each other. You might believe that scientists would be above that sort of thing, but you’d be wrong. About 150 years ago, two scientists started a nasty feud that lasted for decades—and brought to light some of the most spectacular creatures that ever walked the earth.

2 Edward Cope and Othniel Marsh were paleontologists—scientists who study extinct life-forms, including dinosaurs. They met in 1864, when their careers were starting. Paleontology was a young science in the United States, and only a few dinosaurs had been discovered in North America.

3 Cope and Marsh were friendly at first, but their relationship quickly soured. In 1868, Cope and a team of hired men were digging up dinosaurs in New Jersey. Marsh journeyed there and stayed with Cope for a few weeks. Things seemed to go well, but after Marsh left, Cope learned that his guest and the team foreman had made a deal. In exchange for money, the foreman would send new fossils to Marsh instead of Cope. Marsh had fired the first shot in what scientists would come to call the “Bone Wars.”

4 The war heated up fast. In 1869, Cope wrote an article describing a newly found extinct sea reptile he named Elasmosaurus. Cope included a drawing of the creature's skeleton. Another scientist soon pointed out that Cope had mistakenly stuck the beast’s skull on its tail. Cope was humiliated, and Marsh crowed about the blunder to anyone who would listen. Shortly after, each man began publishing a string of scientific articles viciously attacking the other’s ideas.
5  Cope and Marsh’s thirst to outdo each other spilled into their fieldwork. Throughout the 1870s and 1880s, they led and sent teams into lawless regions of the western United States to hunt for dinosaur bones. The teams were told to slow and disrupt each other’s work through bribery, stealing, and rock-throwing. The teams even used dynamite to blow up cliffs and bury fossils to keep discoveries from falling into each other’s hands. To this day, scientists wonder what fantastic discoveries lay beneath tons of rubble.

6  In addition to sabotage, Cope and Marsh forced their teams to dig up and transport bones quickly. Such speed damaged many specimens, but each man wanted the credit of making the first discoveries of new species. Because they published their findings as quickly as possible, they made many mistakes. Marsh, for example, accidentally stuck the head of one dinosaur (Camarasaurus) on to the neck of another dinosaur (Apatosaurus) and thought he had discovered a new dinosaur—Brontosaurus. Unlike Cope’s mistake with Elasmosaurus, paleontologists didn’t discover and undo Marsh’s Brontosaurus blunder for nearly 100 years.

7  Until the mid-1880s, only scientists knew about Cope and Marsh’s fight. But when Cope ratted out Marsh to the New York Herald, their battle spilled out into the world at large. Cope and Marsh assaulted each other through letters published in the newspaper. For a time, they were as famous as any celebrities of today. And even when the public eventually stopped caring, the feud didn’t cease. The two men of science took swipes at each other until Cope’s death in 1897. Even in death, Cope kept up the attack. He donated his skull to science and asked that his brain size be compared with Marsh’s. (Scientists of that time believed that a person with a large brain was smarter than a person with a small one.) For whatever reason, Marsh did not accept Cope’s challenge.

8  The Bone Wars have a mixed legacy. On the one hand, American paleontology got a bad reputation from Cope and Marsh’s cutthroat behavior. And the mistakes they made in their rush for glory slowed the progress of paleontology for many years. But the Bone Wars also produced a mountain of raw material. Cope and Marsh discovered more than 130 dinosaur species. Their teams dug up so many bones that scientists are still learning new things about them. And many of their most famous discoveries, including Stegosaurus, Allosaurus, Diplodocus, and Triceratops, fire the imaginations of children (and more than a few adults) worldwide. Perhaps paleontology would have been worse off had the two men actually gotten along.
1 Answer Parts A and B below.

Part A

The article says that paleontology was a young science in the United States in the mid-1800s. How knowledgeable about the field were paleontologists of the time?

A They were more informed than those in other nations.
B They were the greatest experts of the field at the time.
C They were not very knowledgeable about their field.
D They were just as knowledgeable as any other scientists.

Part B

Which detail from the article best supports the answer to Part A?

A “Another scientist soon pointed out that Cope had mistakenly stuck the beast’s skull on its tail.”
B “Cope was humiliated, and Marsh crowed about the blunder to anyone who would listen.”
C “Because they published their findings as quickly as possible, they made many mistakes.”
D “Unlike Cope’s mistake with Elasmosaurus, paleontologists didn’t discover and undo Marsh’s Brontosaurus blunder for nearly 100 years.”

2 Marsh and Cope had a stormy relationship. Which event was the most important influence on this relationship?

A Marsh paid Cope’s team foreman to send new fossils to him.
B Marsh claimed he was the first to discover a mistake by Cope.
C Groups of their workers threw rocks at each other.
D Cope and Marsh attacked each other in the newspapers.
3. Which sentence best describes how the two paleontologists influenced each other?

A. Cope and Marsh would do almost anything to become public celebrities.
B. The competition between Cope and Marsh pushed each man to make amazing discoveries.
C. Cope and Marsh’s mistakes destroyed their credibility as paleontologists.
D. Cope and Marsh would have discovered even more dinosaur bones if they had worked together.

4. Each man thought he was better in his field than the other. Which evidence from the text best supports the inference that Cope also thought he was smarter than Marsh?

A. Cope told the New York Herald about Marsh’s actions.
B. Cope described a newly found extinct sea reptile he named Elasmosaurus.
C. Cope wanted his brain size to be compared with Marsh’s after death.
D. Cope published scientific articles viciously attacking Marsh’s ideas.

5. A good summary includes only important details. Which of the following details is not important enough to include in a summary of the article?

A. The rivalry between Cope and Marsh affected their fieldwork.
B. Cope and Marsh brought to light some amazing discoveries.
C. Each man’s rush to claim glory caused mistakes to be made.
D. The men gained fame due to their letters in the New York Herald.
The last paragraph says that the Bone Wars have a mixed legacy. How does the author develop this idea?

A. by concentrating on the mistakes that Cope and Marsh made
B. by presenting the pros and cons of Cope and Marsh’s rivalry
C. by giving the causes and effects of Cope and Marsh’s rivalry
D. by stating in sequence events detailing Cope and Marsh’s rivalry

Which of the following lists only the main topics of “The Bone Wars” in the correct order?

A. Cope and Marsh meet in 1864.
   Their feud begins in 1868.
   Cope publishes a mistake in 1869.
   The feud moves into fieldwork during the 1870s and 1880s.
   Cope dies in 1897, leaving Marsh the winner of the Bone Wars.

B. Marsh begins the feud.
   The feud is fought through scientific articles.
   The fighting turns violent in fieldwork out West.
   Cope dies and wants his brain compared with Marsh’s.
   The Bone Wars both helps and hurts the reputation of paleontology.

C. The feud turns Cope and Marsh into celebrities.
   Marsh secretly tries to hire Cope’s foreman.
   Cope publishes a mistake in a scientific journal.
   Cope and Marsh begin fighting the Bone Wars.
   Cope dies, so Marsh wins the Bone Wars.

D. A feud begins between Cope and Marsh.
   Cope and Marsh compete in both articles and fieldwork.
   The fight leads to both mistakes and damaged specimens.
   The feud goes public and ends only with Cope’s death.
   The Bone Wars slowed scientific progress but provided valuable fossils.
The last paragraph of the article states that “American paleontology got a bad reputation from Cope and Marsh’s cutthroat behavior.” Explain why this was true. Cite two pieces of text evidence to support your inference.

Write a paragraph in which you analyze the positive influence Cope and Marsh’s rivalry had on the field of paleontology, both in their own time and today. Support your analysis with details from the article.