



Seventh Grade

(7)

English Language Arts
Math
Social Studies
Science

Lesson 1

Phrases and Clauses



Introduction

Phrases and **clauses** are groups of words that give specific information in a sentence.

- A **phrase** may contain the subject or the predicate of a sentence but never both—and sometimes neither. For this reason, a phrase cannot stand alone.

Sentence: The great American artist Romare Bearden was born on September 2, 1911.

Phrase 1: The great American artist Romare Bearden (*contains subject*)

Phrase 2: was born (*contains predicate*)

Phrase 3: on September 2, 1911 (*contains neither*)

- A **clause** contains both a subject and a predicate. An **independent clause** can stand alone. A **dependent (subordinate) clause** depends on another clause and cannot stand alone.

Sentence: Although Bearden was born in North Carolina, his family eventually moved to New York.

subject **predicate**

Clause 1: Although Bearden was born in North Carolina (*dependent*)

subject **predicate**

Clause 2: his family eventually moved to New York (*independent*)



Guided Practice

Circle **P** for *phrase* or **C** for *clause* to identify the underlined group of words in each sentence. Then write **D** above any dependent clauses.

Hint

A dependent clause often begins with *before*, *after*, or *until*. Phrases can also begin with these words, but phrases cannot have both a subject and a predicate.

- | | | |
|---|--|-------|
| 1 | <u>Before he began his career as an artist</u> , Bearden received a degree in education. | P C |
| 2 | <u>After college</u> , he worked as a social worker in New York City. | P C |
| 3 | <u>He studied the works of many European artists</u> , including Picasso and Matisse. | P C |
| 4 | Bearden also studied <u>African art and Chinese landscape paintings</u> . | P C |



Independent Practice

For numbers 1–5, select the group of words that answers each question.

- 1** Which group of words in this sentence is a clause?

When World War II broke out, Bearden served in the U.S. Army.

- A** broke out
- B** in the U.S. Army
- C** served in the U.S. Army
- D** When World War II broke out

- 2** Which group of words in this sentence is a dependent clause?

After that, Bearden spent time in Paris, where he studied art.

- A** where he studied art
- B** spent time in Paris
- C** After that
- D** Bearden spent time

- 3** Which group of words in this sentence is an independent clause?

Back in New York once more, Bearden briefly became a songwriter before pursuing art again.

- A** Bearden briefly became a songwriter
- B** became a songwriter before pursuing art again
- C** Back in New York once more
- D** before pursuing art again

Answer Form

1 (A) (B) (C) (D)

2 (A) (B) (C) (D)

3 (A) (B) (C) (D)

4 (A) (B) (C) (D)

5 (A) (B) (C) (D)

Number
Correct

5

- 4** Which group of words in this sentence is a phrase?

In the 1960s, while Bearden focused on creating collages that depicted African-American life, he also became active in civil rights.

- A** he also became active in civil rights
- B** In the 1960s, while Bearden focused on creating collages
- C** In the 1960s
- D** while Bearden focused

- 5** Which group of words in this sentence is a dependent clause that contains a phrase?

Bearden was supporting young minority artists when he helped establish the Cinque Gallery in 1969.

- A** Bearden was supporting young minority artists
- B** when he helped establish the Cinque Gallery in 1969
- C** was supporting young minority artists when he helped
- D** establish the Cinque Gallery in 1969

Lesson 4

Simple and Compound Sentences



Introduction

Sentences can be described according to the number and type of clauses in them. Remember that a **clause** is a group of words that contains both a subject and a predicate. An **independent clause** is a clause that can stand alone as its own sentence.

- A **simple sentence** contains one independent clause.

subject	predicate
[My great-grandmother Lucy]	[was born in Oklahoma in 1911.]

- A **compound sentence** is made up of two or more **independent clauses**. Those clauses are joined by a **coordinating conjunction** such as *and, or, so, but, or yet*, with a comma between the first clause and the conjunction.

independent clause 1	independent clause 2
Lucy's sister Rosene was born in 1913,	and her other sister, Rotha, was born in 1915.



Guided Practice

Write *simple* next to each simple sentence. Write *compound* next to each compound sentence, then circle the conjunction that joins the two clauses.

Hint

A simple sentence can have a compound subject or compound predicate.

Compound subject:

My brother and I loved Grandma Lucy.

Compound predicate:

She *wrote music and played the piano.*

Both sentences are simple sentences.

- 1 Lucy's mother and father were both schoolteachers. _____
- 2 They traveled all over Oklahoma, yet Lucy and her sisters never minded or complained. _____
- 3 As a young girl, Lucy was always one of the best students in her class. _____
- 4 Schools were segregated in Oklahoma in the early 1900s, so Lucy and her sisters attended schools for black children. _____
- 5 Lucy's family did not have much money but lived happily. _____



Independent Practice

For numbers 1–3, choose the sentence that answers each question.

- 1** Which of these is a simple sentence?
- A** Great-Grandma Lucy married Richmond Bell in 1937, and they moved to Arizona.
 - B** There was little work in Oklahoma, but in Arizona they got jobs picking cotton.
 - C** The work was difficult, yet Lucy was glad to have a job.
 - D** She and Richmond worked hard and saved their money.

- 2** Which of these is a compound sentence?
- A** Lucy and Richmond heard about work in California.
 - B** They could buy some land and a house in California's Central Valley.
 - C** Folks were struggling to survive in most places, but in California they had jobs.
 - D** Lucy and Richmond packed up, hopped on a train, and went west.

- 3** Which of these is a compound sentence?
- A** The couple found a house in the town of Dos Palos.
 - B** Dos Palos was a small community, but the land was good for farming.
 - C** Lucy and Richmond bought a cow, raised chickens, and grew vegetables.
 - D** Their first child was born in Dos Palos in the summer of 1945.

Answer Form

1 (A) (B) (C) (D)

2 (A) (B) (C) (D)

3 (A) (B) (C) (D)

4 (A) (B) (C) (D)

5 (A) (B) (C) (D)

Number
Correct

5

For numbers 4 and 5, choose the answer that correctly combines each pair of simple sentences into a compound sentence.

- 4** World War II began. Richmond joined the army.
- A** World War II began but Richmond joined the army.
 - B** World War II began, Richmond joined the army.
 - C** World War II began, and, Richmond joined the army.
 - D** World War II began, and Richmond joined the army.

- 5** With the men away, many jobs were open to women. Lucy became a librarian.
- A** With the men away, many jobs were open to women, so Lucy became a librarian.
 - B** With the men away, many jobs were open to women, Lucy became a librarian.
 - C** With the men away, many jobs were open to women, so, Lucy became a librarian.
 - D** With the men away, many jobs were open to women so, Lucy became a librarian.

Analyzing the Development of Central Ideas

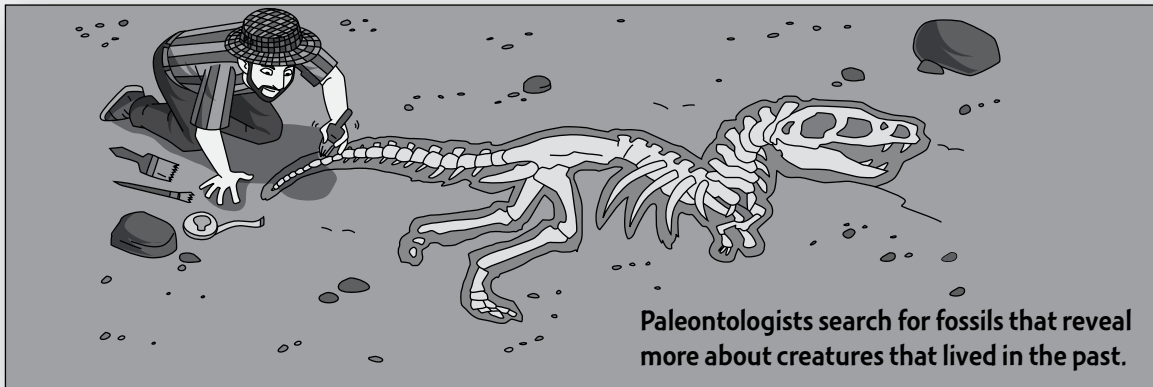
CCLS

RI.7.2 Determine two or more central ideas in a text and analyze their development over the course of the text. . . .

Theme: *Careers*

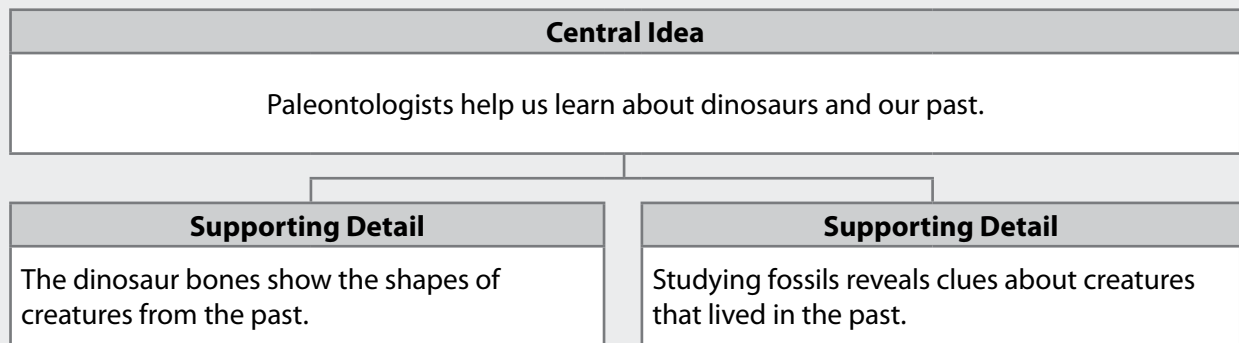
As you read, do you wonder what the author is trying to tell you in the text? Try to figure out the **central idea**, or the most important point (or points) an author is trying to make about the topic. Sometimes a central idea may be stated directly, but more often it is implied. Then you must figure 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.



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.



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.

Genre: Social Studies Account

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.

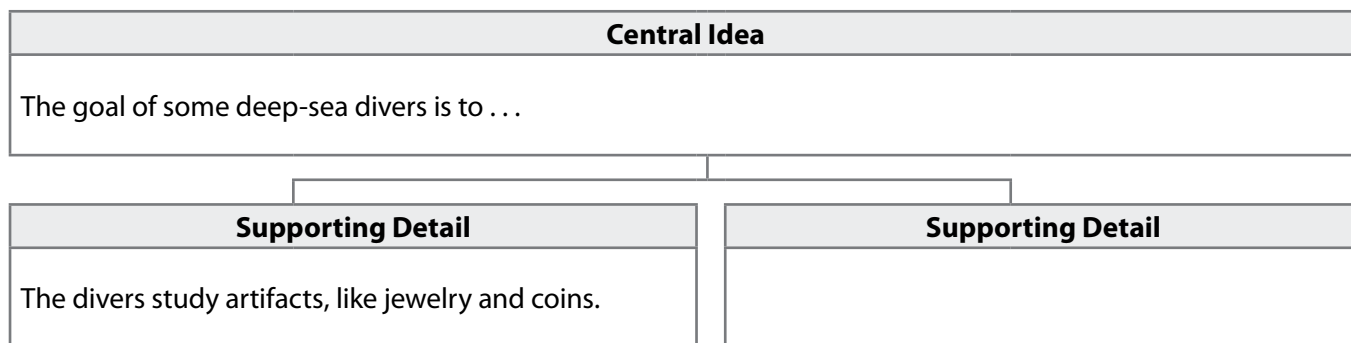
The divers who study sunken treasures are concerned with preservation of the sites. These divers often locate, map, and study shipwrecks. When they find a site, the divers are interested in using the information that the treasure provides to form a story about the ship that wrecked. By studying artifacts 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.



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.



Close Reading

The author mentions two central ideas in these paragraphs. **Circle** the first central idea and **underline** the second central idea.

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.

Hint

Which choice explains more about the central idea you circled?

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.



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



Genre: Biography

Commander Suni Williams

by Margo Carlin

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.

- 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.”



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.



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.

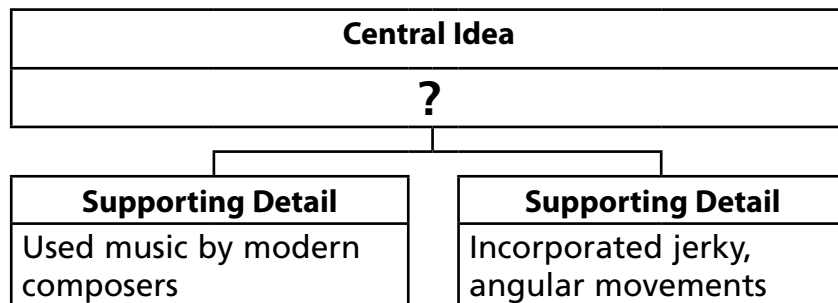
Answer Form

- 1 (A) (B) (C) (D)
- 2 (A) (B) (C) (D)
- 3 (A) (B) (C) (D)

Number Correct

3

1 Study the idea web below.



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.



- 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.*

Reading

Read the passage. Then answer the questions that follow.

The Aqua-Lung—Bringing Ocean Exploration to New Depths

by Jess Therell

1 Jacques Cousteau was an adventurer and an explorer with a passion for the ocean. He wanted not only to observe what was beneath the ocean’s surface, but also to protect it by making the public aware of its importance. For this reason, many people also view him as an environmentalist.

2 Cousteau accomplished many things during his distinguished career. He helped author dozens of books about the ocean. He made a number of films, and he led several expeditions aboard his ship, *Calypso*. The explorer even created an underwater camera. Along with an engineer by the name of Emile Gagnan, Cousteau also invented the Aqua-Lung. This was a device that could be used to breathe underwater. Perhaps the most important outcome of the creation of the Aqua-Lung was that it made it possible for more people to explore the ocean’s depths.

The Aqua-Lung—An Overview of Its Invention

3 The inspiration for the most important part of the Aqua-Lung was a regulator designed by Emile Gagnan. It was first used for car engines. Its chief feature was that it helped supply the exact amount of fuel needed for an engine to run, reducing unnecessary usage and minimizing waste.

4 Cousteau adapted Gagnan’s invention to create the “demand regulator,” the defining component of the Aqua-Lung system. The regulator is the piece that fits into the diver’s mouth. The other essential parts were tanks containing air that were strapped to the diver’s back, as well as a hose to carry air from the tank to the regulator.

5 The design of the Aqua-Lung was completed in the early 1940s. It was available for purchase in France a short time later. Within a decade, the system was being sold in several countries throughout the world.

What Made the Aqua-Lung Different?

6 The Aqua-Lung differed from most underwater devices that existed at the time in two main ways. First, it allowed divers to stay underwater for a much longer period of time. Before the invention of the Aqua-Lung, divers could only remain underwater for a matter of minutes before their air ran out. With the Aqua-Lung, that time could be extended to an hour or even more.

7 Second, it addressed the issue of air pressure. Pressure rapidly increases as water depth increases. In order to breathe without risk of harm in deep water, any inhaled air must have the same pressure as the surrounding water. The Aqua-Lung regulator automatically adjusted the pressure of the air in the tank to equalize air and water pressure, which made diving safer.

Go On

Do Cousteau and Gagnan Deserve All the Credit?

8 While Cousteau and Gagnan’s self-contained underwater breathing apparatus (SCUBA) known as the Aqua-Lung was an important new creation, it may not have been the revolutionary advancement many people seem to think. Cousteau and Gagnan built on the work of those who came before by modifying existing technologies and devices. This practice is common among inventors and scientists.

9 Support for the above claim can be found by looking at the history of ocean exploration and the devices that preceded the “invention” of the Aqua-Lung. First, it is important to note that people have always been intrigued by the ocean. Hundreds of years ago, people were already searching for ways to “breathe” underwater so they could stay beneath the surface longer and go deeper. They used hollow reeds as snorkels and wooden barrels as crude air tanks. Although these devices have little in common with the Aqua-Lung and other equipment currently on the market, they show that many people had aspirations and ideas that were similar to Cousteau’s.

10 Second, the Aqua-Lung emerged after very similar devices had already been invented. By far the most notable one was the apparatus that was developed by Captain Yves Le Prieur in 1925. The main difference between it and the Aqua-Lung was air flow. Le Prieur’s SCUBA released air constantly. The Cousteau/Gagnan device released it “on demand”—when the diver inhaled. Certainly, the world-famous Cousteau owed much of the credit for the creation of the Aqua-Lung to the comparatively unknown Le Prieur.

The Impact of the Aqua-Lung

11 Although Cousteau and Gagnan built on earlier technology, their invention did open the world of diving to more people. The Aqua-Lung made SCUBA diving simpler, safer, and accessible to the public. In the decades after the device became available, countless individuals adopted underwater diving as a hobby. Aqua-Lung is still a brand name that appears on many types of diving equipment, from regulators to masks to fins.

12 Cousteau’s greatest legacy as a conservationist may have been giving ordinary people the tools needed to view the wonders of the ocean firsthand. Movies and books can certainly show people the beauty of marine life and explain why it needs protection. However, seeing the splendor of the ocean and some of its marvels in person is likely to be much more convincing than anything that appears on a screen or in print.

1 The following question has two parts. First, answer part A. Then, answer part B.

Part A

What does the word “regulator” mean as it is used in the passage?

- A** a device used to control the pressure of air
- B** a device used to control the flow of liquids
- C** a mechanism in a watch or clock by which its speed is adjusted
- D** a person who makes sure laws or rules are followed

Part B

Which of the phrases from the passage **best** helps the reader understand the meaning of “regulator”?

- A** “supply the exact amount of fuel needed for an engine to run”
- B** “the piece that fits into the divers mouth”
- C** “automatically adjusted the pressure of the air in the tank”
- D** “the system was being sold in several countries throughout the world”

2 Select **two** central ideas of the passage.

- A** Jacques Cousteau promoted the conservation of our oceans.
- B** Over the centuries, many people have invented devices similar to the Aqua-Lung to assist divers.
- C** The Aqua-Lung differs from Le Prieur’s SCUBA in one important way.
- D** The Aqua-Lung allowed longer, safer dives.
- E** Cousteau and Gagnan might not deserve all the credit for inventing the Aqua-Lung.
- F** Aqua-Lung is still a brand of equipment sold today.
- G** Cousteau and Gagnan built upon previous technologies when creating their Aqua-Lung.

Go On

3

What is the author's main purpose in writing this passage?

- A** to give facts about a valuable invention and its impact on diving
- B** to make readers question Cousteau's contribution to the world of diving
- C** to explain the differences between the Aqua-Lung and Le Prieur's invention
- D** to describe how diving has changed and improved over the years

4

Read this sentence from the passage.

Cousteau's greatest legacy as a conservationist may have been giving ordinary people the tools needed to view the wonders of the ocean firsthand.

What connotation does the phrase "ordinary people" have in this sentence?

- A** uneducated people
- B** dull and tiresome people
- C** people who do not know how to swim
- D** people who are neither explorers nor scientists

5

Below are three claims that one could make based on the passage “The Aqua-Lung—Bringing Ocean Exploration to New Depths.”

Claims	Jacques Cousteau was committed to helping people learn more about the world around them.
	The Aqua-Lung was superior to other devices that were available at the time.
	Cousteau made many contributions in a variety of areas.

Circle one of the claims, and then write down **two** sentences from the passage that support the claim.

First sentence: _____

Second sentence: _____

Go On

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.

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

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.

Hint

When you come across an unfamiliar word in a sentence, don’t just look in the same sentence for clues. Also look in sentences that come before and after the word.

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.



Independent Practice

For numbers 1–4, use context clues to figure out the meaning of each underlined word.

Answer Form

1 (A) (B) (C) (D)

2 (A) (B) (C) (D)

3 (A) (B) (C) (D)

4 (A) (B) (C) (D)

Number
Correct

4

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”

Understanding Addition with Negative Integers

- 1 Between the time Iko woke up and lunchtime, the temperature rose by 11° . Then by the time he went to bed, the temperature dropped by 14° .

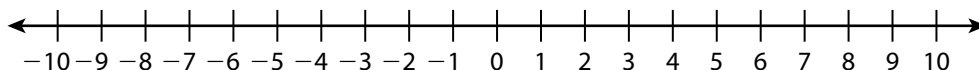
Write an addition expression for the temperature relative to when Iko woke up.

Draw a model using integer chips and circle the zero pairs.

What is the value of the remaining integer chips after the zero pairs are removed?

What is the net change in the temperature relative to when Iko woke up?

- 2 Complete the number line model to find $(-5) + 6$.



$(-5) + 6 =$ _____

How would the number line model be different if you wanted to find $(-5) + (-6)$?

Understanding Addition with Negative Integers

continued

► For problems 3–5, consider the sum $4 + (-8)$.

3 Explain how you can use a number line to find the sum.

4 Explain how you can use chips to determine the sum.

5 Does it matter what order you add the numbers in the problem? Explain how chips and number lines support your answer.

6 Write an addition expression that has a value of -8 .

Understanding Subtraction with Negative Integers

- 1 Mary takes 9 grapes from Rohin and then decides to give 4 back.

Write a subtraction problem to describe how many grapes Rohin has. _____

Draw a model for the subtraction problem using integer chips.

How many negative integer chips did you cross out? _____

Write the subtraction as addition. _____

Draw a model for the addition problem using integer chips.

How do the two integer chip models show that $-9 - (-4)$ is the same as $-9 + 4$?

What is the change in the number of grapes Rohin has? _____

Understanding Subtraction with Negative Integers *continued*

- 2 Jin is 3 floors above ground level in a hotel. Leila is on a parking level of the hotel that is 4 floors below ground level. How many floors apart are they? Draw a number line model to show $3 - (-4)$.



What is $3 - (-4)$? _____

What is the meaning of this answer in the context of the problem?

Rewrite $3 - (-4)$ as an addition problem. _____

- 3 The variables a and b represent positive numbers. When you find the difference $a - (-b)$, do you expect the result to be less than or greater than a ? What if a is negative and b is positive? Explain.

Understanding Multiplication with Negative Integers

► Practice multiplying negative integers.

1 Find each product. Then describe any patterns you notice.

$$3 \cdot (-7) = \underline{\hspace{2cm}}$$

$$2 \cdot (-7) = \underline{\hspace{2cm}}$$

$$1 \cdot (-7) = \underline{\hspace{2cm}}$$

$$0 \cdot (-7) = \underline{\hspace{2cm}}$$

$$(-1) \cdot (-7) = \underline{\hspace{2cm}}$$

$$(-2) \cdot (-7) = \underline{\hspace{2cm}}$$

$$(-3) \cdot (-7) = \underline{\hspace{2cm}}$$

2 Solve each problem. Explain how you determined the sign of the products.

$$(-3)(9) = \underline{\hspace{2cm}}$$

$$(-8)(-5) = \underline{\hspace{2cm}}$$

$$(-5)(-6) = \underline{\hspace{2cm}}$$

$$(-1)(2)(-6) = \underline{\hspace{2cm}}$$

$$(-2)(-4)(-7) = \underline{\hspace{2cm}}$$

$$(-3)(-4)(-3)(-1) = \underline{\hspace{2cm}}$$

Understanding Multiplication with Negative Integers

continued

- 3 Use the distributive property to show why the product $(-6)(-3)$ is positive. The first step is done for you.

$$(-6)(-3) + (-6)(3) = (-6)[(-3) + 3]$$

- 4 Mark's work to simplify $(-3)(-5)(-2)$ is shown. Explain his error and show how to find the correct product.

$$(-3)(-5)(-2) = (-15)(-2) = 30$$

Adding and Subtracting Positive and Negative Fractions and Decimals

- Estimate each problem to check if the student's answer is reasonable. If not, cross out the answer and write the correct answer. Show your work.

Problems	Student Answers
1 $1.3 - (-2.5)$	<p>-1.2 Possible estimate: $1 - (-3) = 1 + 3$ $= 4$</p> <p>3.8</p> <p>$1.3 - (-2.5) = 1.3 + 2.5$ $= 3.8$</p>
2 $-3\frac{1}{6} + 6\frac{2}{3}$	<p>$-3\frac{1}{2}$</p>
3 $-4.2 - (-2.9)$	<p>-1.3</p>
4 $3\frac{1}{5} - 2\frac{1}{2} + 2\frac{3}{5}$	<p>$-3\frac{1}{3}$</p>

Adding and Subtracting Positive and Negative Fractions and Decimals *continued*

Problems	Student Answers
5 $5.9 - 7.3 - 10.2$	11.6
6 $-5\frac{5}{6} - (-2\frac{1}{3}) + 5\frac{1}{6}$	$1\frac{2}{3}$
7 $11.5 - 5.4 - 4.7$	-1.4
8 $-11\frac{1}{8} - 12\frac{1}{4} - (-21\frac{1}{2})$	$2\frac{1}{8}$

- 9 How does estimating an addition or subtraction problem help you know if an answer is reasonable?

Multiplying Negative Rational Numbers

► Find the product of the rational numbers. The answers are mixed up at the bottom of the page. Cross out the answers as you complete the problems.

1 $2 \times -\frac{7}{4}$

2 $-\frac{1}{3} \times -\frac{6}{5}$

3 $\frac{2}{5} \times -\frac{3}{4}$

4 $-2\frac{1}{3} \times \frac{5}{4}$

5 $-\frac{3}{7} \times -1\frac{2}{3}$

6 $-3\frac{5}{7} \times -2\frac{1}{2}$

7 $0.75 \times -\frac{4}{3}$

8 $-0.2 \times -\frac{2}{5}$

9 $-0.35 \times -1\frac{3}{7}$

10 $2.5 \times -3\frac{4}{5}$

11 0.2×-0.45

12 -0.25×-1.4

13 -2.3×6.8

14 $-3.9 \times 5\frac{5}{9}$

15 $-4.2 \times -6\frac{2}{7}$

Answers

$-21\frac{2}{3}$

-15.64

$-9\frac{1}{2}$

$-3\frac{1}{2}$

$-2\frac{11}{12}$

-1

$-\frac{3}{10}$

-0.09

$\frac{2}{25}$

0.35

$\frac{2}{5}$

$\frac{1}{2}$

$\frac{5}{7}$

$9\frac{2}{7}$

$26\frac{2}{5}$

Dividing Negative Rational Numbers

► Find each quotient.

1 $-5 \div \frac{5}{7}$

2 $-\frac{8}{9} \div \frac{2}{3}$

3 $\frac{3}{10} \div -\frac{6}{7}$

4 $-2\frac{3}{4} \div 11$

5 $-4\frac{2}{7} \div -\frac{15}{16}$

6 $-1\frac{4}{7} \div -3\frac{2}{3}$

7 $-8 \div 6.4$

8 $-\frac{3}{2} \div 0.5$

9 $-3\frac{1}{3} \div 1.2$

10 $9.28 \div -3.2$

11 $0.056 \div -0.004$

12 $-0.28 \div 0.07$

13 Explain the steps you used to solve problem 11.

Writing Rational Numbers as Repeating Decimals

► Write each number as a repeating decimal.

1 $\frac{1}{9}$

2 $-\frac{2}{11}$

3 $\frac{7}{11}$

4 $\frac{1}{3}$

5 $2\frac{4}{9}$

6 $-\frac{13}{6}$

7 $-1\frac{5}{6}$

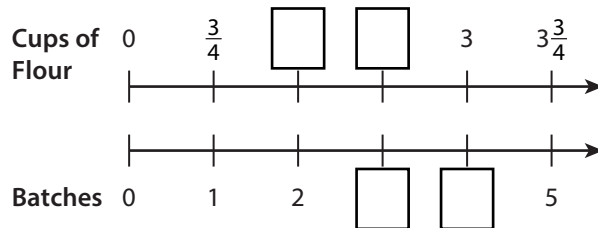
8 $\frac{13}{99}$

9 When the denominator of a proper fraction is 99, what do you notice about the repeating digit(s) in its decimal form?

Understanding Proportional Relationships

► Read and solve the problems. Show your work.

- 1 Josie is making pizza dough. Complete the double number line by filling in the missing values. Then write an equation that models the relationship between the total cups of flour, c , and number of batches, n . Show your work.



- 2 Lilli bought each of her friends a pair of colorful socks that cost \$5.50. Complete the table to show how much Lilli paid to buy different numbers of socks. Then write an equation that shows the total cost, c , for p pairs of socks.

Cost		\$11.00			
Pairs of socks	1	2	3		

- 3 Explain how using a table is similar to using a double number line and how it is different.
- 4 Mrs. Lopez types at a constant rate. The constant of proportionality for the relationship between the number of words she types, w , and the number of minutes she types, m , is 38. Write an equation to show this relationship.

15.1 What Is Ecology?

Lesson Objectives

- Define ecology.
- Distinguish between biotic and abiotic factors in the environment.
- Outline levels of organization in ecology.

Lesson Vocabulary

- abiotic factor
- biosphere
- biotic factor
- ecology

Introduction

The science of how living things interact with each other and their environment is called ecology. Ecology is a major branch of life science, but it overlaps with many other fields. For example, it shares data and theories with geography, biology, climatology, and other sciences. In this lesson, you'll learn some of the basic concepts of ecology.

Organisms and Environmental Factors

Organisms are individual living things. They range from microscopic bacteria to gigantic blue whales (see **Figure 15.1**). Despite their great diversity, all organisms have the same basic needs: energy and matter. Energy and matter must be obtained from the environment.

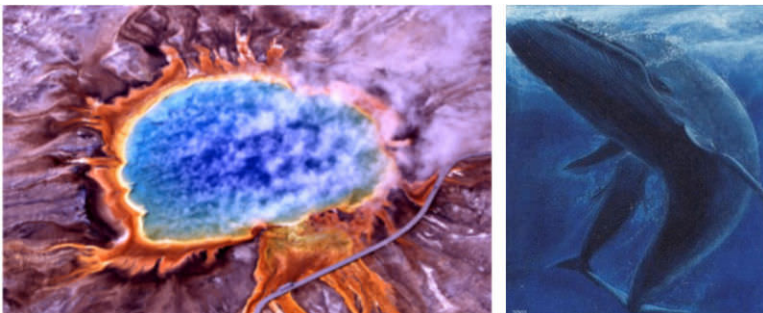


FIGURE 15.1

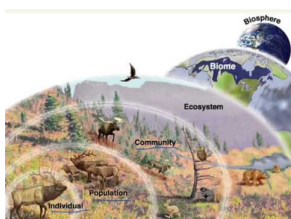
Organisms show tremendous diversity. Some of the smallest and largest living organisms are pictured here: billions of microorganisms that thrive in this hot spring give it its striking colors (left); blue whales are the largest living organisms (right).

Organisms depend on their environment to meet their needs, so they are greatly influenced by it. There are many factors in the environment that affect organisms. The factors can be classified as either biotic or abiotic.

- Biotic factors are all of the living or once-living aspects of the environment. They include all the organisms that live there as well as the remains of dead organisms.
- Abiotic factors are all of the aspects of the environment that have never been alive. They include factors such as sunlight, minerals in soil, temperature, and moisture.

Levels of Organization in Ecology

Ecologists study organisms and environments at several different levels, from the individual to the biosphere. The levels are depicted in **Figure 15.2** and described below. For a video introduction to the levels of organization in ecology, click on this link: <http://www.youtube.com/watch?v=5FtlqU1DDK0> .



MEDIA

Click image to the left or use the URL below.

URL: <http://www.ck12.org/flx/render/embeddedobject/140773>

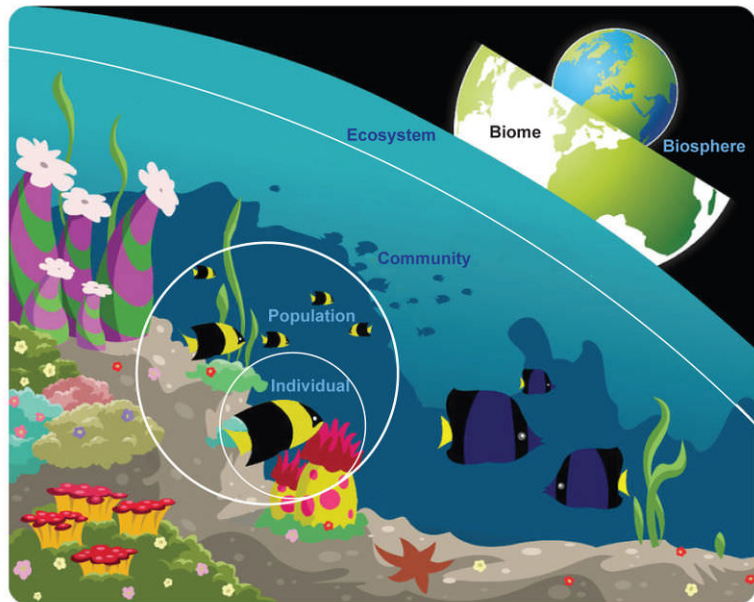


FIGURE 15.2

From individuals to the biosphere, ecology can be studied at several different levels.

- An individual is an organism, or single living thing.
- A population is a group of individuals of the same species that live in the same area. Members of the same population generally interact with each other.
- A community is made up of all the populations of all the species that live in the same area. Populations in a community also generally interact with each other.

- An ecosystem consists of all the biotic and abiotic factors in an area. It includes a community, the abiotic factors in the environment, and all their interactions.
- A biome is a group of similar ecosystems with the same general abiotic factors and primary producers. Biomes may be terrestrial (land-based) or aquatic (water-based).
- The biosphere consists of all the parts of Earth where life can be found. This is the highest level of organization in ecology. It includes all of the other levels below it. The biosphere consists of all the world's biomes, both terrestrial and aquatic.

Lesson Summary

- Ecology is the science of how living things interact with each other and their environment.
- All organisms depend on their environment for energy and matter and are influenced by their environment. Factors in the environment that can affect organisms include biotic factors and abiotic factors.
- Ecologists study organisms and environments at several different levels. From smallest to largest, they include the individual, population, community, ecosystem, biome, and biosphere.

Lesson Review Questions

Recall

1. What is ecology?
2. Define the biosphere.

Apply Concepts

3. Make an illustrated chart to show the different levels of organization in ecology.

Think Critically

4. Explain why organisms depend on their environment.
5. Compare and contrast biotic and abiotic factors in the environment.

Points to Consider

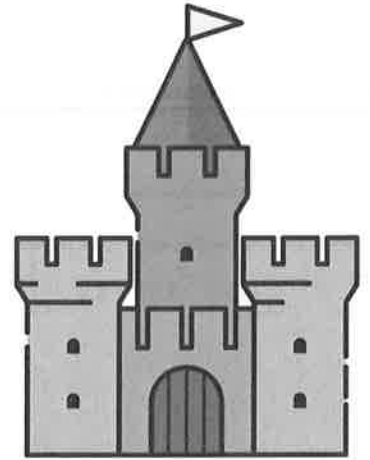
The population is an important level of organization in ecology. It is also the unit of microevolution.

1. What is a population?
2. How can a population grow?

Name _____ **Middle Ages**

Middle Ages

The Middle Ages, also known as Medieval Times, was a period in history that lasted from 500 AD to 1500 AD. It began when the Roman Empire fell and lasted until the rise of the Ottoman Empire. The Middle Ages is also sometimes known as the Dark Ages because after the Roman Empire collapsed, much of the art, technology, engineering, and history of the Romans was lost. Additionally, there was no central government recording history during that time.



The social structure and style of government during the Middle Ages was called feudalism. The Bishop was the highest-ranking church official in a kingdom and everyone in the kingdom supported the church. The king was the highest authority in the land. He gave land to Barons and high-ranking nobles in exchange for their loyalty and their ability to provide soldiers. Barons divided their land among the lords. Around each lord's manor was a village surrounded by farms. The serfs (peasants) who lived on the land worked on the land for the lord in exchange for the lord's protection. Most people during the Middle Ages were serfs.

Together, the Black Death, the Crusades, and the Peasants Revolt brought about the end of the Middle Ages. The Black Death, now known as the Bubonic Plague, killed about half the population of Europe. Remaining serfs demanded more money from the lords. Others left feudal farms for higher-paying jobs in more populated areas. During the Crusades, many barons and knights mortgaged or sold their fiefs so that they could participate, often dying without heirs. As the number and influence of the noble class declined, royal authority increased. These two events eventually led to the Peasant's Revolt, an uprising of serfs across large parts of England in 1381. The shortage of cheap labor and the decline of serfdom laid the foundation for the beginning of the modern age.

Name _____ **Middle Ages**

QUESTIONS: Middle Ages

Circle the correct answer.

1. Which of the following years was part of the Middle Ages?
 - A. 50 AD
 - B. 550 AD
 - C. 1550 AD
 - D. All of the above

2. What event marked the beginning of the Middle Ages?
 - A. the fall of the Roman Empire
 - B. the rise of the Ottoman Empire
 - C. the end of the Dark Ages
 - D. the Crusades

3. The social structure and style of government during the Middle Ages was called:
 - A. the Dark Ages
 - B. feudalism
 - C. the Peasant Revolt
 - D. the Crusades

4. During the Middle Ages, the highest-ranking official in the land was:
 - A. the Bishop
 - B. the Baron
 - C. the Lord
 - D. the King

5. Which of the following did NOT contribute to the end of the Middle Ages?
 - A. the Black Death
 - B. the Crusades
 - C. the fall of the Roman Empire
 - D. the Peasant's Revolt