#### **Greek Civilization**

#### Lesson 1 Greek Culture

#### **ESSENTIAL QUESTION**

What makes a culture unique?

#### **GUIDING QUESTIONS**

- 1. How did the ancient Greeks honor their gods?
- 2. Why were epics and fables important to the ancient Greeks?
- 3. How did Greek dramas develop?
- 4. What ideas did the Greeks express in their art and architecture?

#### **Terms to Know**

myth a traditional story that explains a culture's beliefs or part of the natural world ritual words or actions that are part of a religious ceremony

**oracle** a priestess who speaks for the gods and answers questions about what will happen in the future

**fable** a story that teaches a lesson **oral tradition** the custom of passing stories from one generation to the next by telling the stories out loud

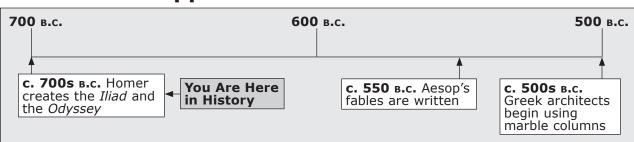
**drama** a story that is told by the actions and spoken words of actors

**tragedy** a drama in which characters struggle to overcome problems, but fail **comedy** a drama that tells a humorous story

#### Where in the world?



## When did it happen?





Lesson 1 Greek Culture, Continued

#### **Greek Beliefs**

The Greeks believed in many gods and goddesses, and they told **myths** about them. Greek myths are traditional stories about gods and heroes. The Greeks believed these gods affected everyday life. Every city-state had a god or goddess who protected its people. The Greeks worshiped their gods in temples and at home.

The Greek gods and goddesses had great powers. However, the Greek people did not fear them because the gods acted like humans. Greeks believed the 12 most important gods and goddesses lived on Mount Olympus and were protected by a gate of clouds. Zeus was the king of the gods.

To please their gods, the people performed **rituals**, or religious ceremonies in honor of the gods. They had festivals, or celebrations, and feasts for the gods. They prayed and offered gifts to the gods. They believed that the gods were pleased when the people showed skill in the arts or athletics. Every four years they had athletic competitions, called the Olympic Games.

The Greeks believed that the gods made prophecies, or predictions, to help people plan for the future. People who wanted to know the future or listen to other advice visited an **oracle**. This was a priestess who talked to the gods from a room deep inside a temple. People asked the priestess questions. She told her answers to the priests. Then the priests translated the answers. The most famous oracle was at the Temple of Apollo in Delphi.

#### **Epics and Fables**

Greek poems and stories are some of the oldest in the Western world. Many writers have used ideas from these old stories, like England's William Shakespeare.

#### The Iliad

- written about 700 в.с.
- story of a war between the Greeks and the people of Troy
- Troy won the war using a wooden horse

#### The Odyssey

- written about 700 в.с.
- story of the hero Odysseus
- adventures of Odysseus going home from the Trojan war

The earliest Greek stories were called epics. Epics are long poems about heroes and their brave deeds. Homer wrote two great Greek epics: the *Iliad* and the *Odyssey*.

## Marking the Text

1. Underline what the Greek gods and goddesses were like.

## Paraphrasing

2. Why did the Greeks have festivals and rituals for their gods?



**3.** Why did the ancient Greeks seek advice from oracles?

### **Identifying**

**4.** Who wrote the *Iliad* and the *Odyssey*?

#### **Greek Civilization**

#### Lesson 1 Greek Culture, Continued

FOLDABLES



#### 📳 Listing

- Venn diagram
  Foldable along the
  dotted line next to
  Epics and Fables.
  Write Epics on the
  anchor tab. Label
  the top tab Iliad, the
  middle tab Both,
  and the bottom tab
  Odyssey. On the
  reverse sides, list
  facts about each to
  compare and
  contrast the stories.
- Critical Thinking
- **6.** Why do you think Aesop's fables are still told today?

Reading Check

7. How do fables usually end?

Homer wrote them both in the 700s  $_{\rm B.C.}$  The *Iliad* tells of a war between the Greeks and the people of Troy. The story describes how this war was won with a wooden horse. The *Odyssey* tells about the hero, Odysseus, and his long journey home from the Trojan War.

The Greeks believed that the *Iliad* and the *Odyssey* were true stories. These epics gave them a history filled with heroes and brave deeds. Homer's stories taught important lessons, such as, friendship and marriage should be valued. Homer's heroes were role models for the Greeks.

**Fable Epic** short story long poem uses animals has brave **Both** who talk hero and passed shows human adventures down from qualities describes one brave deeds often funny generation to the next • is written told out loud down teaches a • ends with a lesson • thought to moral be true

Have you heard the story of "The Boy Who Cried Wolf?" This story and others like it were said to have been written by a man named Aesop. He is supposed to have lived around 550 B.C. Historians now know that there was probably never anyone named Aesop who wrote these stories. However, the stories do exist. They are known as Aesop's **fables.** 

Fables are short tales that teach a lesson. They always have a point, or moral. The moral is a truth that teaches a useful life lesson. Fables are often funny and show human weaknesses and strengths.

Aesop's fables were part of Greece's **oral tradition** for about 200 years. This means that people told the stories out loud to their children and grandchildren. Later, people wrote down the fables. Aesop's fables are read and told today by people all around the world.

#### **Greek Civilization**

Lesson 1 Greek Culture, Continued

#### The Impact of Greek Drama

A **drama** is a story told by people who act out the events. They play the parts of the characters in the story, saying their words and acting out their feelings and actions. Movies, plays, and television shows are often dramas.

The Greeks developed two types of drama—**tragedy** and **comedy.** A tragedy has an unhappy ending. The characters in a tragedy cannot solve their problems no matter how hard they try. The first Greek plays were tragedies.

Later the Greeks wrote comedies. A comedy ends happily. Today, we use the word *comedy* to mean a funny story. For the Greeks, a comedy was any drama with a happy ending.

In ancient Greece, women were not allowed to act. Men played all the parts, even the female characters. For the Greeks, dramas were part of religious festivals. Greek dramas dealt with big ideas, such as the meaning of good and evil and the rights of people.

#### **Greek Art and Architecture**

Greek artists created art that expressed the ideals of order, balance, and harmony. This style of art is now known as the classical style.

Greek artists painted on pottery, using red and black paint. Large vases often have pictures from myths. Small pieces, like cups, have pictures from everyday life.

The Greeks built beautiful buildings. These buildings had large columns to support the roof. The most important buildings were the temples. Each temple was dedicated to a god or goddess. The Parthenon of Athens honored the goddess Athena.

Many Greek temples were decorated with sculpture. Sculpture, like all of Greek art, expressed artists' ideas of perfection and beauty.

#### **Check for Understanding**

List three kinds of writing that were started by the ancient Greeks.

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#### Reading Check

**8.** How did Greek drama influence how people are entertained today?



#### **Explaining**

**9.** Why were temples built?



#### Reading Check

10. How did the Greeks design their buildings?

## FOLDABLES

Foldable to cover the Check for Understanding. Write Greek on the anchor tab. Label the top tab Writing and the bottom tab Art and Architecture. Use both sides of the tabs to list what you remember about Greek writing, art, and architecture.

#### Lesson 2 The Greek Mind

#### **ESSENTIAL QUESTION**

How do new ideas change the way people live?

#### **GUIDING QUESTIONS**

- 1. What ideas did the Greeks develop to explain the world around them?
- 2. What did the Greeks believe about history and science?

#### **Terms to Know**

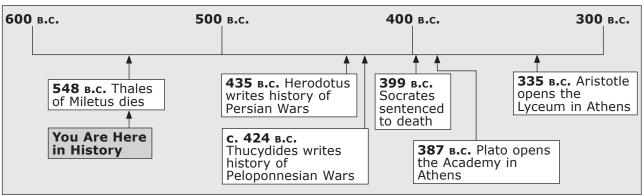
**Sophists** Greek teachers of philosophy, reasoning, and public speaking

rhetoric the art of public speaking and
debate

**Socratic method** philosophical method of questioning to gain truth; developed by Socrates

**Hippocratic Oath** a set of promises about patient care that new doctors make when they start practicing medicine

### When did it happen?



#### What do you know?

In the K column, list what you already know about ancient Greek philosophers, historians, and scientists. In the W column, list what you want to know. After reading the lesson, fill in the L column with the information that you learned.

K	W	L

#### **Greek Civilization**

Lesson 2 The Greek Mind, Continued

#### **Greek Thinkers**

The word *philosophy* comes from the Greek word for "love of wisdom." The first philosophers were Greek thinkers.

Philosophers called the **Sophists** were teachers in ancient Greece. Sophists taught **rhetoric**, the art of public speaking and formal argument. Sophists did not believe that the gods influenced everyday life. They did not believe in absolute, or definite, right and wrong. They thought that something wrong for one person could be right for another.

Socrates was trained as a sculptor but became a teacher of philosophy. We know about him from his students' writings. Socrates did not agree with the Sophists. He thought there was an absolute right and wrong. He thought all real knowledge was buried deep inside each person.

Socrates tried to help people find the knowledge inside themselves through the **Socratic method** of teaching. This meant he did not lecture his students. Socrates asked them questions. He wanted them to think for themselves to answer questions and to learn.

Some leaders in Athens thought Socrates was dangerous. They said he encouraged people to question their leaders' decisions. In 399 B.C., Socrates was arrested and found guilty of teaching young people to rebel. He was sentenced to death. Socrates could have left Athens, but he refused. He said that he lived in Athens, so he had to obey the city's laws. He drank poison to carry out his death sentence.

Plato was one of Socrates' students. He wrote a book called *The Republic*. In it, he described his plan for the ideal society. Plato did not like Athenian democracy. He did not believe that everyone in society could make good decisions. His ideal government divided people into three groups. The top group was philosopher kings. Plato felt they were wise enough to do what was best for everyone rather than only what was best for themselves.

# • W • BI • TI w

#### **Plato's Ideas About Government**

- · Wise philosopher kings should rule.
- Brave warriors should defend society.
- The common people should do all the work.



# **Understanding Word Origins**

**1.** Where does the word *philosophy* come from?

Fol	DAR	LES

## Identifying

2. Place a three-tab
Foldable along the
dotted line. Write
Greek Thinkers on
the anchor tab.
Label the three
tabs—Socrates,
Plato and Aristotle.

Use both sides of the tabs to write about the beliefs of each philosopher.

### I I

#### Identifying

3. Who made up the top group of Plato's ideal government?

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#### **Greek Civilization**

#### Lesson 2 The Greek Mind, Continued

#### **Explaining**

**4.** In Plato's ideal society, who would do all the work to provide food, clothing and shelter? Why?



**5.** Why did Plato dislike Athenian democracy?



## Marking the Text

**6.** Underline the way people explained the past before Herodotus.

Warriors were the second group in Plato's ideal society. Their job was to defend the society against attack. The third group was everyone else. They did all of the jobs in society that were necessary to provide food, clothing, and shelter. Plato believed that the common people were too easily influenced and would make foolish decisions.

Unlike most men at that time, Plato believed that women should have the same education and the same jobs as men. Plato started a school in Athens. It was called the Academy. His best student was Aristotle. Aristotle wrote more than 200 works on government, science, and the planets.

In 355 B.C., Aristotle opened his own school called the Lyceum. His teaching focused on the idea that people should live moderately. His belief in observation, or looking at the world around him, was an important step in the development of modern science.

Aristotle also wrote about government in his book *Politics*. He divided governments into three types. The first was monarchy, or rule by one person, such as a king. The second was oligarchy, or rule by just a few people. The third was democracy, or rule by the majority of the people.

Aristotle thought that the best government was a combination of all three types. Aristotle's ideas influenced the founders of the United States government.



#### Aristotle's Ideas About Government

Government should be a combination of three different types:

- 1. monarchy—or rule by one person
- 2. oligarchy—rule by a few people
- 3. democracy—rule by many people

## **New History and Science Ideas**

For thousands of years, people did not write history. They believed that the legends and myths passed from one generation to the next were true.

Then, in 435 B.C., Herodotus wrote the history of the Persian Wars. Though he believed that the gods affected historical events, he tried to separate fact from legend.

#### **Greek Civilization**

#### **Lesson 2** The Greek Mind, Continued

He was the first to do careful research. Today, he is called the "father of history." Thucydides was another famous historian of the ancient world. He did not believe that the gods affected human history. Thucydides tried to write everything the way it actually happened.

In ancient times, most people thought that the gods controlled nature. However, the early Greek scientists thought that people could discover the causes of natural events by observing, investigating, and thinking.

The first important Greek scientist was Thales of Miletus. He made discoveries and developed theories by observing and thinking.

Another Greek scientist, Pythagoras, believed that all relationships in the world could be expressed in numbers. He is famous for developing the Pythagorean theorem. It is still used in geometry to figure out the length of the sides of a triangle.

Hippocrates was a physician who is called the "father of medicine." He believed that diseases came from natural causes. He made important discoveries about different kinds of diseases. He also developed his own treatments to cure sick people.

Hippocrates wrote a list of rules about how doctors should treat their patients. The rules are listed in the Hippocratic Oath. It says doctors should do their best to help the patient. It says they should protect the patient's privacy. Today, doctors around the world still promise to honor the Hippocratic Oath.

#### **Check for Understanding**

Identify the father of history and the father of medicine. Both were ancient Greeks.

- 1. Father of History \_\_\_\_\_
- 2. Father of Medicine \_\_\_\_\_

List one historian and one scientist and their ideas that were different from the beliefs of earlier Greeks.

#### Contrasting

7. How were Herodotus and Thucydides different?



#### Reading Check

8. Why is Herodotus called "the father of history?"

## FOLDABLES

9. Glue a two-tab Foldable behind a one-tab Foldable along the anchor tabs. Glue the Foldable booklet along the dotted line to cover the Check for Understanding. On the anchor tab, write New Ideas .... Label the one-tab Foldable Philosophy. Label the two tabs— History and Science. Use both sides of the tabs to list what you remember about Greek ideas that are still used today.

#### **Greek Civilization**

#### Lesson 3 Alexander's Empire

#### **ESSENTIAL QUESTION**

What are the characteristics of a leader?

#### **GUIDING QUESTIONS**

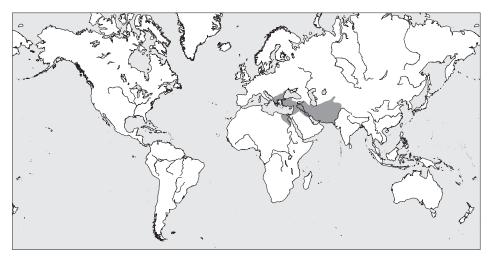
- 1. Why did Macedonia become powerful?
- 2. What were Alexander's goals as a ruler?
- 3. How successful was Alexander in achieving his goals?

#### **Terms to Know**

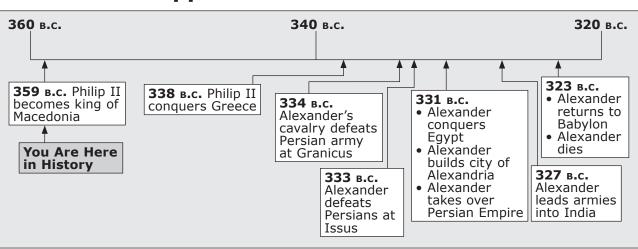
**cavalry** soldiers who fight while riding horses

**Hellenistic Era** the time period after Alexander died when Greek culture spread to all the lands in his empire

#### Where in the world?



## When did it happen?



#### **Greek Civilization**

#### Lesson 3 Alexander's Empire, Continued

#### Philip II of Macedonia

Macedonia was a kingdom north of Greece. The people raised sheep and horses, and they farmed. For much of its history, Macedonia had not been a powerful country.

In 359 B.C., Philip II became king of Macedonia. He wanted to defeat the Persian Empire. First he had to unite the Greek city-states and put them under his rule. Philip built a strong army and trained them to fight like the Greeks.

The Greek city-states were weak. They had been divided by the Peloponnesian War. Philip took control of the citystates one by one. He defeated some in battle. He bribed some to give up. Others joined him by their own choice.

Demosthenes was a lawyer and one of Athens's great public speakers. He warned that Philip threatened the freedom of the Greeks. He urged all the city-states to join together to fight the Macedonians. By the time the Greeks listened to Demosthenes, it was too late. In 338 B.C., the Macedonians crushed the Greeks at the Battle of Chaeronea. Philip now controlled most of Greece.

#### **Alexander Takes Over**

Before Philip could conquer the Persian Empire, he was killed. His son Alexander took over. Alexander was only 20 years old, but he had already been in battle many times. His father had put him in the Macedonian army when he was very young. By the age of 16, he was serving as a commander.

#### The Life of Alexander the Great

- Age 16: Commander in his father's army
- Age 20: Became ruler after Phillip II's death
- Age 22: Invaded Asia Minor
- Age 25: Conquered Egypt
- Age 26: Conquered the Persian Empire
- Age 29: Invaded India
- Age 32: Died in Babylon

Alexander invaded Asia Minor in 334 B.C. He had about 40,000 soldiers. His **cavalry**, the soldiers who rode horses, crushed the Persian army at the battle of Granicus. This area was located in what is today northwestern Turkey.



#### Marking the Text

1. Circle the name of the person who warned the Greeks about Philip's army.



#### Reading Check

**2.** How was Philip II able to gain control over most of Greece?

#### Drawing Conclusions

**3.** How did Alexander fulfill his father's dream?

#### **Greek Civilization**

#### Lesson 3 Alexander's Empire, Continued

Analyzing

**4.** Why do you think Alexander and his armies were so successful in their battles against the Persians?

**3** 

#### Marking the Text

**5.** Underline the kinds of hardships Alexander and his soldiers experienced when they crossed the desert.

1

#### Reading Check

**6.** Why was the Battle of Guagamela so important to Alexander?

Alexander's forces continued across Asia Minor. They freed Greek city-states that had been under Persian rule. In 333 B.c. Alexander defeated the Persian army at Issus, in Syria. The Persian king, Darius III, had to run away.

Then Alexander went south. In 331 B.C. he conquered Egypt. There he built the city of Alexandria, naming it after himself. It became one of the most important cities of the ancient world. Later that year, Alexander went northeast to Mesopotamia. He defeated Darius's forces at Guagamela, near the Tigris River. After this victory, Alexander's army took over the rest of the Persian Empire.

**Defeating the Persian Empire** 

334 B.C. Alexander's cavalry crushes Persian Army at Granicus.

334 B.c. Alexander's army frees Greek city-states in Asia Minor from Persian rule.

333 B.c. Alexander defeats Persian Army at Issus and Darius flees.

331 в.с. Alexander conquers Egypt.

331 B.c. Alexander's army smashes Darius's forces at Gaugamela.

331 B.C. Alexander takes over Persian Empire.

Alexander did not stop. In 327  $_{\rm B.C.}$  he and his army marched into northwestern India. They fought a number of bloody battles. His soldiers grew tired of war, so Alexander agreed to lead them home.

On the way there, the army crossed a desert in what is modern Iran. There was very little water. Heat and thirst killed thousands of soldiers. When soldiers found some water, they gave it to Alexander in a helmet. Alexander poured the water on the ground. He showed his soldiers that he was willing to suffer the same thirst and pain that they did.

Alexander arrived back in Babylon in 323  $_{\rm B.C.}$  The journey and all the battles had wrecked Alexander's health. He died in Babylon. He was only 32 years old.

#### **Greek Civilization**

#### **Lesson 3** Alexander's Empire, Continued

### **Alexander's Legacy**

Alexander was a great and brave military leader. Alexander is thought to have always tried to copy his hero, Achilles. Achilles was one of the warriors in the *Iliad* by Homer.

When he died, Alexander was the most powerful ruler in the ancient world. That is one reason we call him Alexander the Great.

A legacy is what a person leaves to other people when he or she dies. Alexander's legacy was a world that knew about Greek culture. Wherever Alexander's army went, they spread the Greek language, ideas, and art. This is another reason why he is called Alexander the Great.

Alexander's accomplishments were the beginnings of the **Hellenistic Era.** *Hellenistic* means "like the Greeks." The Hellenistic Era is the time when Greek ideas spread to non-Greek people in all the lands Alexander had conquered.

Alexander wanted the Macedonians, the Greeks, the Egyptians, and the Persians to unite under a single empire. It did not happen.

After Alexander died, his generals fought with each other. The empire fell apart. It became four separate Hellenistic kingdoms: Macedonia, Pergamum, Egypt, and the Seleucid Empire. The kings often gave jobs to Greeks or Macedonians. It was one way to control the government.

By 100 B.C., Alexandria was the largest city in the Mediterranean world. Its library had the largest number of writings in ancient times. The Hellenistic kings built many other cities, too. These cities needed many workers. The kings asked Greeks and Macedonians to move to these cities. These colonists helped spread the Greek culture into Egypt and as far east as India.

#### Check for Understanding

List two things Alexander did to try to unify the Greeks and Macedonians with the peoples they conquered.

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2	
<b>Z</b> .	

Name two legacies that Alexander left behind.

3.			

#### Explaining

**7.** Give two reasons why Alexander was called "Alexander the Great."



#### Reading Check

**8.** What happened to Alexander's empire after he died?

# FOLDARIES

9. Place a two-tab Foldable along the dotted line to cover the Check for Understanding. On the anchor tab, write Alexander the Great. Label the top tab *Military Leader* and the bottom tab Hellenistic Era.

> Use both sides of the tabs to record what you remember about Alexander the Great.

#### **Lesson 4** Hellenistic Culture

#### **ESSENTIAL QUESTION**

How do new ideas change the way people live?

#### **GUIDING QUESTIONS**

- 1. How did Greek culture spread during the Hellenistic Era?
- 2. What ideas and discoveries emerged during the Hellenistic Era?
- 3. How did Greece fall under Roman rule?

#### **Terms to Know**

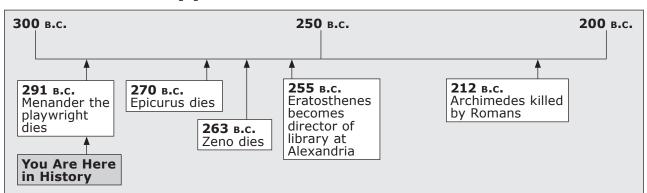
**Epicureanism** the philosophy of Epicurus, which says that the purpose of life is to find happiness and peace

**Stoicism** the philosophy of the Stoics, which says that people should use reason and not emotion

circumference the outer border of a circle; the measurement of that border plane geometry branch of mathematics that shows the relationships of points, lines, angles, and surfaces of figures that are flat or level

**solid geometry** branch of mathematics that shows the relationships of points, lines, angles, surfaces, and solids in three-dimensional space

### When did it happen?



#### What do you know?

In the first column, answer the questions based on what you know before you study. After this lesson, complete the last column.

Now		Later
	What do you know about Greek culture?	
	Why did the Greeks fall to the Romans?	



Lesson 4 Hellenistic Culture, Continued

#### **Hellenistic Arts**

During the Hellenistic Era, scientists, writers, philosophers, and poets moved to the new Greek cities in Egypt and Southwest Asia. Many came to use Alexandria's library. It had more than 500,000 scrolls. Alexandria also had a museum that brought people to study and do research.

The Hellenistic kings built new cities and rebuilt old ones. They brought in Greek architects to design the new baths, temples, and theaters in the Greek style. The kings and other rich citizens hired Greek sculptors to make statues. Hellenistic sculptors developed new styles. They did not carve ideal versions of the perfect human body. They showed people more realistically. They even showed people being angry or sad.

Writers wrote drama, poetry, and histories at this time, but most of this writing has been lost or destroyed. Appolonius of Rhodes wrote an epic poem called *Argonautica*. It is about Jason, his crew, and their adventures sailing the seas. Another poet, Theocritus, wrote short poems about nature and its beauty.

Athens was still the center of Greek drama. Writers in Athens invented a new kind of comedy. The plays were about love and relationships of ordinary people. Menander was the best-known of these new playwrights. He lived from 343 B.C. to around 291 B.C.

Writers of the Hellenistic Era				
Writer	What He Wrote			
Appolonius of Rhodes	epic poem <i>Argonautica</i>			
Theocritus	short poems about nature and its beauty			
Menander	plays about love and relationships of ordinary people			

#### **Thinkers and Scientists**

During this time, the most famous philosophers still went to Athens. The two most important Hellenistic philosophers were Epicurus and Zeno.

Epicurus developed **Epicureanism.** This philosophy taught people that happiness should be the goal of life.

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- 4				

## **Examining Details**

1. How did the Hellenistic kings spread Greek culture?

# Reading Check

2. How did Greek sculpture and drama change during the Hellenistic Era?

#### **Greek Civilization**

#### Lesson 4 Hellenistic Culture, Continued

3.	What is Stoicism?
4.	Applying  If you wanted to figure out how much air is in a basketball, would you use plane geometry or solid geometry?
5.	Drawing Conclusions Why do you think the effects of Hellenistic culture were so longlasting?

Today, *epicurean* means a love of good food or comfortable things. To Epicurus, happiness meant spending time with friends and not worrying.

A thinker named Zeno developed **Stoicism.** Stoics believed that happiness came from following logic and reason. Emotions, like anger or sadness, caused problems. Today we call someone a stoic if they do not seem to be affected by joy or sadness. Stoics also believed that people were happy when they did their duty to the community.

Science flourished during the Hellenistic Era. Scientists of that time had only simple instruments, but they performed experiments and made discoveries. Aristarchus was an astronomer. Astronomers study stars, planets, and other objects outside the Earth's atmosphere. Aristarchus said that the sun was at the center of the universe and that Earth went around the sun. Other astronomers thought he was wrong.

Eratosthenes was a scientist in charge of Alexandria's library. He figured out that Earth was round. He also measured the **circumference** of Earth, or how big around it was. The estimate that Eratosthenes made was only 185 miles (298 kilometers) off the actual distance.

Euclid was a mathematician who wrote *Elements*. The book teaches **plane geometry**—a branch of mathematics concerned with how points, lines, angles, and surfaces work together.

Greek Scientist	Occupation	Discoveries
Aristarchus	Astronomer	sun was at the center of the universe; Earth went around the sun
Eratosthenes	Scientist; in charge of library at Alexandria	Earth was round; measured the circumference of Earth
Euclid	Mathematician	wrote the book, Elements, which teaches plane geometry
Archimedes	Mathematician; Inventor	worked on solid geometry; figured out the value of <i>pi</i> ; invented the catapult

#### **Greek Civilization**

#### **Lesson 4** Hellenistic Culture, *continued*

Archimedes was the most famous scientist of the Hellenistic Era. He worked on **solid geometry**—the branch of mathematics concerned with the study of spheres [ball-like shapes] and cylinders [tube-like shapes]. He figured out the value of pi, which is used to measure how much space a circle covers. Its symbol is  $\pi$ .

Archimedes was also an inventor. He invented the catapult, a war machine that hurled rocks, arrows, and spears at the enemy. In 212 B.C. the Romans attacked Syracuse. The catapults worked so well that it took the Romans three years to capture Syracuse. Finally the Romans got inside the city walls. They massacred most of the people, including Archimedes.

Hellenistic thinking and culture had long-lasting effects. More than 700 years after the Hellenistic Era, the mathematician Hypatia lived in Alexandria. Like the earlier Greeks, she studied philosophy and mathematics. She believed in the use of reason instead of superstition.

#### **Greece and Rome**

The four kingdoms that formed from Alexander's empire often fought wars against each other. Some Greek city-states became independent, but they did not have strong armies. They were not free for very long.

Rome was a city-state in central Italy. In the late 200s B.C., Rome conquered all of Italy. The Greeks tried to stop Rome. They supported Rome's enemies in wars. The Romans won all those wars, though. Soon, Rome gained control of the Greek mainland.

#### **Check for Understanding**

List two discoveries made in math and astronomy during the Hellenistic Era that are still important to us today.

1.			

2			

People from Greece moved to cities in the Hellenistic kingdoms. List two jobs they did there.

3.	

## 4. \_\_\_\_\_

## **✓**

#### Reading Check

**6.** How were Epicureanism and Stoicism similar? How were they different?



#### Reading Check

**7.** How did the Greek city-states react to Rome's growing power?



8. Place a two-tab
Foldable to cover
the Check for
Understanding. On
the anchor tab,
write Hellenistic Era.
Label the top tab
Thinkers and Writers
and the bottom tab
Scientists and
Mathematicians. Use
both sides of the
tabs to list what you
know about each.