Objectives

- Explain how Alexander the Great built an extensive empire.
- Describe the empire’s cultural impact.
- Identify individuals who contributed to Hellenistic civilization.

Terms, People, and Places

- Alexander the Great
- Philip II
- Pythagoras
- Archimedes
- Heliocentric
- Hippocrates

Vocabulary Builder

Use the information below and the following resources to teach the high-use words from this section.

High-Use Words

- accumulate, p. 140
  - vt. to gather together or collect over a period of time
  - My grandmother accumulated junk in the attic for years.
- elaborate, p. 141
  - adj. developed in great detail; highly ornamented
  - The gown had an elaborate design of beadwork and jewels.

Witness History

Alexander Shares the Rewards

A young man named Alexander inherited the Macedonian empire from his father, Philip II. Alexander proceeded to extend the empire at an epic scale. His empire was so vast that it stretched from the Mediterranean to the borders of India. The architect of this new era was the man who would eventually become known to history as Alexander the Great.

In 338 B.C., Philip II conquered Greece. Philip had a still grander dream—to conquer the Persian empire. Before he could achieve that plan, though, he was assassinated at the Battle of Issus.

The Empire of Alexander the Great

To the Greeks, the rugged, mountainous kingdom of Macedonia was a backward, half-civilized land. The rulers of this frontier land, in fact, were of Greek origin and kept ties to the Greek neighbors. As a youth, Philip II had lived in Thebes and had come to admire Greek culture. Later, he hired Aristotle as a tutor to his young son Alexander.

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In 338 B.C., Alexander took Persia. He then brought all of Greece under his control.

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The Empire of Alexander the Great

Instruct

■ Introduce: Key Term Ask students to find the term assassination (in blue) and define its meaning. What do they predict will be the result of the assassination discussed in this section?

■ Teach Display Color Transparency 24: Empire of Alexander. Trace the rise and conquests of Alexander the Great. Ask: What part of his empire did Alexander inherit? (Macedonia and Greece) What might be some of the unmentioned costs of Alexander’s conquests? (loss of life and limb, destruction of the property and livelihoods of conquered peoples, loss of control of Greek politics)

■ Color Transparencies, 24

■ Quick Activity Show students Alexander the Great from the Witness History Discovery School™ video program. Ask students to explain why Alexander was able to conquer such an extent of the known world. (He had a superb army and great abilities as a commander; the Persian Empire had weakened under Darius III; and Greece and the lands he conquered had sufficient wealth and resources to pay for his campaigns.)

Independent Practice

Have students access Web Code nap-0451 to take the Geography Interactive Audio Guided Tour and then answer the map skills questions in the text.

Monitor Progress

Check that student responses to the map skills questions reflect an understanding of Alexander’s empire.

Answers

Map Skills

1. Review locations with students.
2. (a) The Persian empire was largest as it included more of North Africa and Southwest Asia.
3. Sample: It would be difficult to keep such a far-flung empire united, especially at a time when travel and communication were so difficult.

Differentiated Instruction

1. Special Needs
Because the earliest surviving sources about Alexander the Great were written three centuries after his death, modern historians must carefully sift through the evidence to separate the man from the myths that have grown around him. Ask students what they know of more modern men who attempted to conquer much of the world (Napoleon, Hitler, etc.) and how they compare to Alexander. In the case of Alexander, his utter focus on war and conquest meant terrible bloodshed and violence across hundreds of miles. His empire collapsed as soon as he died. Ask students to discuss whether the level of destruction waged by Alexander or more recent would be conquerors fits with the title “the great.”

3. Predicting Consequences: Judging from this map, do you think Alexander’s empire would be difficult to keep united? Explain your reasoning.
his daughter’s wedding. Assassination is the murder of a public figure, usually for political reasons. Philip’s queen, Olympias, then instigated a bloody feud between her two sons and his son was Alexander, on the throne.

Alexander Takes Persia Alexander was only 20 years old. Yet he was already an experienced soldier who shared his father’s ambitions. With Greece subdued, he began organizing the forces needed to conquer Persia. By 334 B.C., he had enough ships to cross the Dardanelles, the strait separating Europe from Asia Minor.

Persia was no longer the great power it had once been. The emperor Darius III was weak, and the provinces were often in rebellion against him. Still, the Persian empire stretched more than 2,000 miles from Egypt to India.

Alexander won his first victory against the Persians at the Granicus River. He then moved from victory to victory, marching through Asia Minor into Palestine and south to Egypt before turning east again to take Babylon in 331 B.C. Other cities followed. But before Alexander could capture Darius, the Persian emperor was murdered.

Advance Into India With much of the Persian empire under his control, the relentless Alexander headed further east. He crossed the Hindu Kush into northern India. There, in 326 B.C., his troops for the first time faced soldiers mounted on war elephants. Although Alexander never lost a battle, his soldiers were tired of the long campaign and refused to go farther east. Reluctantly, Alexander agreed to turn back. After a long and difficult march, they reached Babylon, where Alexander began planning a new campaign.

Alexander’s Early Death Before he could set out again, the thirty-two-year-old fell victim to a sudden fever. As Alexander lay dying, his commanders asked to whom he left his immense empire. “To the strongest,” he is said to have whispered.

In fact, no one leader proved strong enough to succeed Alexander. Instead, after years of disorder, three generals divided up the empire. In fact, no one leader proved strong enough to succeed Alexander. Instead, after years of disorder, three generals divided up the empire.

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Hellenistic Arts and Sciences

Instruct

- **Introduce:** Key Term  Have students find the term *heliocentric* (in blue) in the text and define its meaning. Ask: Why would ancient people be concerned about the relationship of the sun and Earth? (Sample: They might want to have an explanation for why things occur as they do, such as the seasons, the movement of the stars, etc.)

- **Teach**  Explain why and how new philosophies developed and advances in the arts and sciences took place. Ask: Who was Archimedes and what did he do? (Archimedes was a scientist who applied principles of physics to inventions such as levers and pulleys.) What factors might have encouraged the tremendous growth in the arts and sciences during the Hellenistic period? (The Hellenistic blending of cultures allowed thinkers to build on the knowledge of a variety of peoples, rather than continue to work based solely on their own more limited intellectual heritage.)

- **Quick Activity**  Have students look at the images and read the captions in the Infographic on Scientific Advances in the Hellenistic Age. Use the Idea Wave strategy (TE, p. T22) and ask students to brainstorm scientific and technological advances of today that may have sprung from some of these Greek achievements.

Vocabulary Builder

**accumulate**—(uh KYOO um proh buh koom) vt. to gather together or collect over a period of time.

Diffentiated Instruction Solutions for All Learners

- **Special Needs**  Students may use the examples of Hellenistic art and artifacts presented in this section to learn about Hellenistic civilization. Ask: What does each image show about the nature and achievements of the Hellenistic world? (Sample: They show the influence and spread of Greek culture, and the importance of science and technology throughout the Hellenistic world.)
Careers

Astronomers

Astronomy may be the oldest of the sciences, though the earliest astronomers were priests. Many ancient peoples recognized the regularity of the motions of stars and planets and made attempts to record and predict them. Calendars in all societies are based on astronomical observations. Astronomers today study matter and energy and investigate a variety of phenomena including the nature and motion of stars, planets, and galaxies. Space exploration and new technologies have led to amazing discoveries of such things as black holes and pulsars. Astronomers may get their start by making their own observations through amateur telescopes and later studying the subject in college or graduate school.

Independent Practice

Biography

To help students better understand the work of scientist and astronomer Eratosthenes, have them read Eratosthenes and complete the worksheet.

Teaching Resources, Unit 1, p. 73

Monitor Progress

Check Reading and Note Taking Study Guide entries for student understanding.

Answers

Thinking Critically

1. Determine Relevance: How did the vast expansion of Alexander’s empire help promote advances in science and mathematics?
2. Draw Conclusions: Why do you think there were so many advances made during the Hellenistic Age?

Checkpoint: How did Alexander encourage the blending of cultures?

Hellenistic Arts and Sciences

The cities of the Hellenistic world employed armies of architects and artists. Temples, palaces, and other public buildings were much larger and grander than the buildings of classical Greece. The elaborate new style reflected the desire of Hellenistic rulers to glorify themselves as godlike.

New Philosophies

Political turmoil during the Hellenistic age contributed to the rise of new schools of philosophy. The most influential was Stoicism. Its founder, Zeno, urged people to avoid desires and disappointments by accepting calmly whatever life brought. Stoics preached high moral standards, such as the idea of protecting the rights of fellow humans. They taught that all people, including women and slaves, though unequal in society, were morally equal because all had the power of reason. Stoicism later influenced many Roman and Christian thinkers.

Advances in Math and Astronomy

During the Hellenistic age, scholars built on earlier Greek, Babylonian, and Egyptian knowledge. In

Vocabulary Builder

elaborate—(ee LAB uh rit) adj. developed in great detail; highly ornamented

or poets. Royal women held considerable power, working alongside husbands and sons who were the actual rulers. In Egypt, the able and clever queen Cleopatra VII came to rule in her own right.

Checkpoint: How did Alexander encourage the blending of cultures?

The Egyptian astronomer, Ptolemy, developed a model of his theory of the geocentric, or earth-centered, structure of the universe. The brass sphere at right demonstrates his theory, which remained the accepted model of planetary movement until it was disproved in the sixteenth century.

One of the innovations of the great Greek mathematician and inventor, Archimedes, was the Archimedean screw. This simple machine transferred water from a sea level to a higher level. Powered by a windmill or animal labor, this invention simplified the process of field irrigation.

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Assess and Reteach

Assess Progress
- Have students complete the Section Assessment.
- Administer the Section Quiz.
- Teaching Resources, Unit 1, p. 66
- To further assess student understanding, use Progress Monitoring Transparencies, 18

Reteach
If students need more instruction, have them read the section summary.
- Reading and Note Taking Study Guide, p. 47
- Adapted Reading and Note Taking Study Guide, p. 47
- Spanish Reading and Note Taking Study Guide, p. 47

Extend
Remind students that advances in the arts, sciences, and medicine remain highly important to any progressive society. In small groups, have them discuss what a society might do to support such advancement. (Sample: governments could fund research. Ask students to debate which of these things they believe modern societies should do and why.

Answers

**PRIMARY SOURCE** Sample: The oath represents the principles and ethics of the medical professional, indeed so much so that it has remained unchanged and is still applicable today. (Sample: philosophy, mathematics, geometry, astronomy, physics, medicine

**Comprehension and Critical Thinking**
1. Terms, People, and Places
   1. For each term, person, or place listed at the beginning of the section, write a sentence explaining its significance.
   2. Reading Skill: Identify Supporting Details. Use your completed outline to answer the Focus Questions: How did Alexander the Great expand his empire and spread Greek culture throughout the world?

**Section 5 Assessment**
1. Sentences should reflect an understanding of each term, person, or place listed at the beginning of the section.
2. Alexander inherited Greece, conquered parts of Asia and North Africa, and founded numerous cities in which Greeks settled. He encouraged assimilation. In time, the cultures blended, creating a new Hellenistic culture.
3. His empire stretched from Greece to India and North Africa. He inherited Greece and conquered the rest of the empire.
4. Alexander’s conquests brought Greek culture to Asia and North Africa. The Greeks blended their culture with local cultures.
5. The Stoics preached high moral standards, including the moral equality of slaves and women. They taught people to calmly accept life and avoid desires.
6. Setting ethical standards is an important step in the advancement of any field.

**Writing About History**
Students’ concluding paragraphs should include their strongest argument supporting or opposing assimilation.

For additional assessment, have students access Progress Monitoring Online at Web Code maa-0451.
Golden Age of Greek Drama

The ancient Greeks loved going to plays. During the golden age of Greek drama—the 400s B.C.—almost every Greek city had an open-air theater. Enthusiastic audiences filled the stone benches to watch comedies and tragedies performed by two to three actors and a chorus. Many of the techniques developed in these Greek theaters have influenced dramatic productions from ancient times through Shakespeare's era to our own day.

Objectives

■ Learn about the techniques used in Greek theatrical productions.
■ Identify the parts of a Greek theater.

Build Background Knowledge

Ask students if they have ever seen a performance in an outside venue. Have them discuss the problems that arise during productions that are performed outside (inclement weather, traffic noise, difficulty in hearing and/or seeing the performers, etc.) Ask How have we resolved some of these issues today? (microphones, speakers, video screens, acoustic materials, etc.)

Instruct

Have students study the picture of the theatre on this page and visualize the distance between the actors and the audience. Remind students that Greek actors wore masks with exaggerated features to convey to the audience the traits of a character as well as his or her emotions. Ask How would you describe the character portrayed by each mask? (Sample: The lion figure may represent a god because of its regal quality while the bearded mask may represent a foolish king.)

Monitor Progress

Have students brainstorm characters that they are familiar with that wear masks. Then ask Do you think these modern masks serve the same purpose as those of ancient Greek actors? Why or why not? (Agree: The mask immediately indicates the character the masked person portrays. Disagree: The modern mask is individual to that specific character and does not reflect a specific emotion or character trait.)

Thinking Critically

1. Draw Inferences How do you think wearing masks affected the way actors showed their characters emotions?
2. Connect to Today Which Greek theater terms and techniques are still used today?

Special FX

Like their modern counterparts, Greek theaters used special effects to make productions more exciting and dramatic. One technique was the use of two-faced masks that had a peaceful expression on one side and an angry or grotesque one on the other. Thus, with a sharp turn of the head, actors could grab the attention of the audience with a sudden, dramatic mood change. To create a “larger-than-life” look, performers wore boots with 10-inch soles and robes with huge flowing sleeves. Trapdoors were used for dramatic exits, and various sound devices were used to create booms of thunder and cracks of lightning. And with the aid of special cranes, actors in the roles of gods were able to soar above the stage.

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