

# Lesson 4 The Legacy of Greece

## MAIN IDEAS

**Culture** Greek art and architecture introduced new styles and concepts that set standards for generations of artists around the world.

**Culture** The Greek love of reason and logic influenced the development of Western knowledge.

**Science and Technology** Hellenistic science provided much of the scientific knowledge of the world until the modern age.

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## The Arts and Architecture

**ESSENTIAL QUESTION** What new elements did Greek art and architecture introduce?

### Drama

- Greeks invented **drama**—written work performed by actors
- Drama contests part of religious festivals
  - plays sponsored by rich citizens, selected by city leader

### Actors

- Men played all parts, including female roles; wore costumes, masks
- Chorus danced, sang, recited poetry

### Tragedy and Comedy

- Two forms of drama: tragedy and comedy
- **Tragedy**—serious drama showing downfall of important character
  - themes included love, hate, war
  - an example is Sophocles' *Oedipus Rex*
- **Comedy**—less serious drama; often made fun of politics, people, ideas
  - an example is Aristophanes' *The Birds*

## Sculpture

- Greek sculptors aimed to capture **ideal** in work
  - tried to show objects, humans as perfectly as possible
  - tried to create order, beauty, harmony
- Art works were large, outdoors; statues of gods placed in temples
- Sculptor Phidias worked on Parthenon; created statue of Athena
  - statue was made of gold, ivory; was over 30 feet tall

## Architecture

- Architects designed temples, theaters, meeting places, homes of rich
  - sought beautiful buildings with graceful proportions
- Colonnade—series of columns around building
  - pediment—space between top of column and roof
- Parthenon had common temple form: four-sided colonnade
  - housed statue of Athena, sculptured designs with scenes from her life

## REVIEW QUESTION

What was the goal of Greek artists?

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# History, Philosophy, and Democracy

**ESSENTIAL QUESTION** How did the Greek love of reason and logic influence the development of Western thought?

## Democracy Becomes Reality

- City-states' direct democracy gave citizens a voice in government
  - ideas of open, fair system have been copied elsewhere over time

## Herodotus and Thucydides

- One of first civilizations to write history, examine facts of past
- Herodotus—“Father of History”, wrote Persian Wars book *History*
- Thucydides wrote history of Peloponnesian War, set writing standard
  - used documents, eyewitness accounts

## The Search for Truth

- After Peloponnesian War, Greek thinkers questioned values
  - developed **philosophy**—study of basic truths, ideas about universe
- Greek philosophers had two basic ideas about the universe
  - universe is ordered and controlled by laws of nature
  - people can understand these laws

## Socrates

- Socrates was famous philosopher who lived from 470 to 399 B.C.
  - encouraged young students to examine beliefs through questions
  - question-and-answer style of teaching called Socratic method
- Enemies said Socrates caused youth to rebel; they put him on trial
  - Socrates defended teaching youth to think about values, actions
  - jury sentenced him to death; made him drink hemlock, a poison

## Plato and Aristotle

- Plato, born around 427 B.C., was one of Socrates' best students
  - *The Republic* describes ideal government ruled by philosopher-king
  - Plato started school of higher learning called the Academy
- Aristotle, one of Plato's best students, lived from 384 to 322 B.C.
  - devised debate method based on logic; applied logic to science
  - opened the Lyceum—a school in Athens; tutored Alexander the Great

### REVIEW QUESTION

How did Herodotus and Thucydides influence the writing of history today?

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# Science and Technology

**ESSENTIAL QUESTION** Why is Hellenistic science so important?

## Astronomy

- Hellenistic scholars expanded the science of Greece, Egypt, India
- Scientists studying at Alexander learned about planets, stars
  - Eratosthenes estimated circumference—distance around Earth
  - Aristarchus studied sun, moon, Earth; estimated size of sun
  - Ptolemy studied universe, incorrectly put Earth at center

## Mathematics and Physics

- Euclid's geometry text with proofs of work is basis of geometry
- Archimedes explained levers, invented compound pulley
  - may have created water-lifting device for irrigation
  - his ideas were later used to build pumps, steam engines
- Hypatia—first noted female mathematician, also astronomer
  - taught at Alexandria; wrote about Ptolemy, Euclid's works

## REVIEW QUESTION

In what areas of math and science did Greek thinkers work?

## Lesson Summary

- Greek and Hellenistic writers, artists, and architects invented new and beautiful styles.
- Greek philosophy and history set standards of logic, reason, and record keeping.
- Hellenistic scientists made important discoveries about the world.

## Why It Matters Now . . .

The Greek and Hellenistic cultures set enduring standards in art, philosophy, and science.