

Sumerian Achievements

SECTION

3

If YOU were there...

You are a student at a school for scribes in Sumer. Learning all the symbols for writing is very hard. Your teacher assigns you lessons to write on your clay tablet, but you can't help making mistakes. Then you have to smooth out the surface and try again. Still, being a scribe can lead to important jobs for the king. You could make your family proud.

Why would you want to be a scribe?

BUILDING BACKGROUND Sumerian society was advanced in terms of religion and government organization. The Sumerians were responsible for many other achievements, which were passed down to later civilizations.

The Invention of Writing

The Sumerians made one of the greatest cultural advances in history. They developed **cuneiform** (kyoo-NEE-uh-fohrm), the **world's first system of writing**. But Sumerians did not have pencils, pens, or paper. Instead, they used sharp tools called styluses to make wedge-shaped symbols on clay tablets.



Sumerians wrote on clay tablets with a special tool called a stylus.

What You Will Learn...

Main Ideas

1. The Sumerians invented the world's first writing system.
2. Advances and inventions changed Sumerian lives.
3. Many types of art developed in Sumer.

The Big Idea

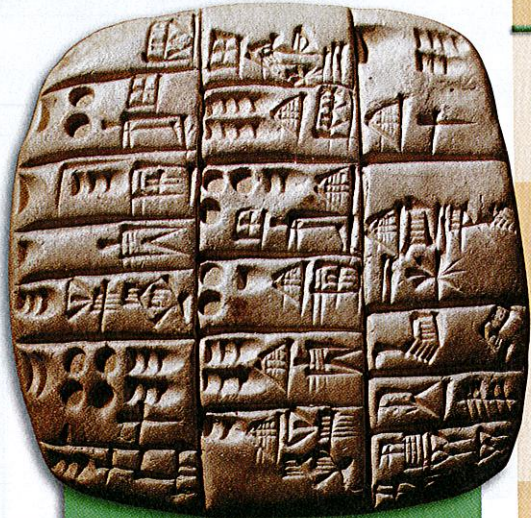
The Sumerians made many advances that helped their society develop.

Key Terms

cuneiform, p. 65
pictographs, p. 66
scribe, p. 66
epics, p. 66
architecture, p. 68
ziggurat, p. 68

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TAKING NOTES

Use the graphic organizer online to list the achievements and advances made by the Sumerian civilization.



Sumerian writing developed from early symbols called pictographs. Writers used clay tablets to record business deals, like this tablet that describes a number of sheep and goats.

| Development of Writing | | | | |
|------------------------|---------|---------|---------|---------|
| | 3300 BC | 2800 BC | 2400 BC | 1800 BC |
| Heaven | | | | |
| Grain | | | | |
| Fish | | | | |
| Bird | | | | |
| Water | | | | |

Earlier written communication had used **pictographs**, or **picture symbols**. Each pictograph represented an object, such as a tree or an animal. But in cuneiform, symbols could also represent syllables, or basic parts of words. As a result, Sumerian writers could combine symbols to express more complex ideas such as “joy” or “powerful.”

Sumerians first used cuneiform to keep business records. A **scribe**, or **writer**, would be hired to keep track of the items people traded. Government officials and temples also hired scribes to keep their records. Becoming a scribe was a way to move up in social class.

Sumerian students went to school to learn to read and write. But, like today, some students did not want to study. A Sumerian story tells of a father who urged his son to do his schoolwork:

“Go to school, stand before your ‘school-father,’ recite your assignment, open your schoolbag, write your tablet . . . After you have finished your assignment and reported to your monitor [teacher], come to me, and do not wander about in the street.”

—Sumerian essay quoted in *History Begins at Sumer*, by Samuel Noah Kramer

In time, Sumerians put their writing skills to new uses. They wrote works on history, law, grammar, and math. They also created works of literature. Sumerians wrote stories, proverbs, and songs. They wrote poems about the gods and about military victories. Some of these were **epics**, **long poems that tell the stories of heroes**. Later, people used some of these poems to create *The Epic of Gilgamesh*, the story of a legendary Sumerian king.

READING CHECK Generalizing How was cuneiform first used in Sumer?

Advances and Inventions

Writing was not the only great Sumerian invention. These early people made many other advances and discoveries.

Technical Advances

One of the Sumerians' most important developments was the wheel. They were the first people to build wheeled vehicles, including carts and wagons. Using the wheel, Sumerians invented a device that spins clay as a craftsman shapes it into bowls. This device is called a potter's wheel.

The plow was another important Sumerian invention. Pulled by oxen, plows broke through the hard clay soil of Sumer to prepare it for planting. This technique greatly increased farm production. The Sumerians also invented a clock that used falling water to measure time.

Sumerian advances improved daily life in many ways. Sumerians built sewers under city streets. They learned to use bronze to make stronger tools and weapons. They even produced makeup and glass jewelry.

Math and Sciences

Another area in which Sumerians excelled was math. In fact, they developed a math system based on the number 60. Based on this system, they divided a circle into 360 degrees. Dividing a year into 12 months—a factor of 60—was another Sumerian idea. Sumerians also calculated the areas of rectangles and triangles.

Sumerian scholars studied science, too. They wrote long lists to record their study of the natural world. These tablets included the names of thousands of animals, plants, and minerals.

The Sumerians also made advances in medicine. They used ingredients from animals, plants, and minerals to produce healing drugs. Items used in these medicines included milk, turtle shells, figs, and salt. The Sumerians even catalogued their medical knowledge, listing treatments according to symptoms and body parts.

THE IMPACT TODAY

Like the Sumerians we use a base-60 system when we talk about 60 seconds in a minute and 60 minutes in an hour.

READING CHECK **Categorizing** What areas of life were improved by Sumerian inventions?

LINKING TO TODAY

The Wheel

Do you realize how much the achievements of ancient Sumer affect your life today—and every day? For instance, try to imagine life without the wheel. How would you get around? Look at the streets outside. The cars, trucks, and buses you see are all modern versions of Sumerian wheeled vehicles. Wheelchairs, bicycles, and in-line skates all depend on wheels as well. Even modern air travel owes a large debt to the Sumerians. As impressive as jets are, they could never get off the ground without their wheels!



ANALYSIS SKILL

ANALYZING INFORMATION

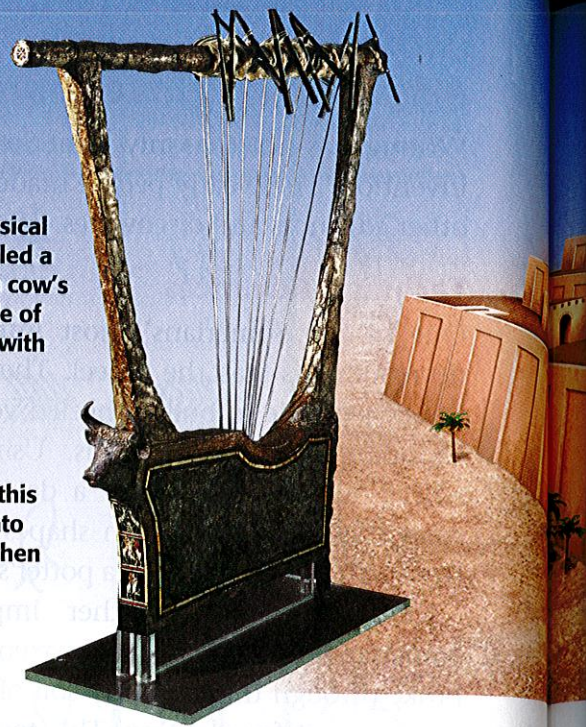
Generalizing Why is the wheel so important to modern society?

Sumerian Achievements

The Sumerians' artistic achievements included beautiful works of gold, wood, and stone.



This stringed musical instrument is called a lyre. It features a cow's head and is made of silver decorated with shell and stone.



Cylinder seals like this one were carved into round stones and then rolled over clay to leave their mark.

The Arts of Sumer

The Sumerians' skills in the fields of art, metalwork, and **architecture**—the **science of building**—are well known to us. The ruins of great buildings and fine works of art have provided us with wonderful examples of the Sumerians' creativity.

Architecture

Most Sumerian rulers lived in large palaces. Other rich Sumerians had two-story homes with as many as a dozen rooms. Most people, however, lived in smaller, one-story houses. These homes had six or seven rooms arranged around a small courtyard. Large and small houses stood side by side along the narrow, unpaved streets of the city. Bricks made of mud were the houses' main building blocks.

City centers were dominated by their temples, the largest and most impressive buildings in Sumer. A **ziggurat**, a **pyramid-shaped temple tower**, rose above each city. Outdoor staircases led to a platform and a shrine at the top. Some architects added columns to make the temples more attractive.

The Arts

Sumerian sculptors produced many fine works. Among them are the statues of gods created for temples. Sumerian artists also sculpted small objects out of ivory and rare woods. Sumerian pottery is known more for its quantity than quality. Potters turned out many items, but few were works of beauty.

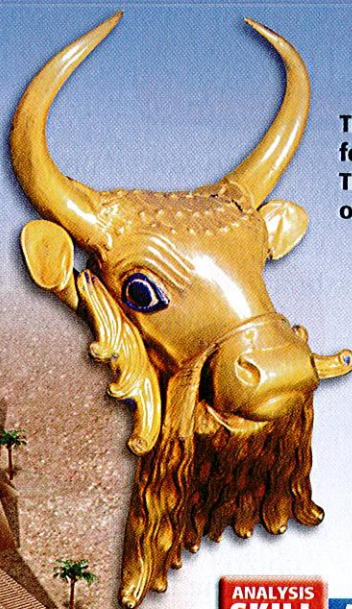
Jewelry was a popular item in Sumer. The jewelers of the region made many beautiful works out of imported gold, silver, and gems. Earrings and other items found in the region show that Sumerian jewelers knew advanced methods for putting gold pieces together.

Cylinder seals are perhaps Sumer's most famous works of art. These small objects were stone cylinders engraved with designs. When rolled over clay, the designs would leave behind their imprint. Each seal left its own distinct imprint. As a result, a person could show ownership of a container by rolling a cylinder over the container's wet clay surface. People could also use cylinder seals to "sign" documents or to decorate other clay objects.

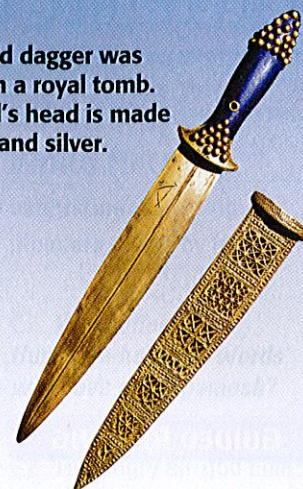
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**ANIMATED
HISTORY**
Ziggurat

The Sumerians were the first people in Mesopotamia to build large temples called ziggurats.



This gold dagger was found in a royal tomb. The bull's head is made of gold and silver.



ANALYSIS SKILL

ANALYZING VISUALS

What animal is shown in two of these works?

Some seals showed battle scenes. Others displayed worship rituals. Some were highly decorative, with hundreds of carefully cut gems. They required great skill to make.

The Sumerians also enjoyed music. Kings and temples hired musicians to play on special occasions. Sumerian musicians played reed pipes, drums, tambourines, and stringed instruments called lyres. Children learned songs in school. People sang hymns to gods and kings. Music and dance

provided entertainment in marketplaces and homes.

READING CHECK

Drawing Inferences What might historians learn from cylinder seals?

SUMMARY AND PREVIEW

The Sumerians greatly enriched their society. Next you will learn about the later peoples who lived in Mesopotamia.

Section 3 Assessment



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ONLINE QUIZ

Reviewing Ideas, Terms, and People

- a. Identify** What is **cuneiform**?

b. Analyze Why do you think writing is one of history's most important cultural advances?

c. Elaborate What current leader would you choose to write an **epic** about, and why?
- a. Recall** What were two early uses of the wheel?

b. Explain Why do you think the invention of the plow was so important to the Sumerians?
- a. Describe** What was the basic Sumerian building material?

b. Make Inferences Why do you think cylinder seals developed into works of art?

Critical Thinking

- Identifying Effects** In a chart like this one, identify the effect of each Sumerian advance or achievement you listed in your notes.

| Advance/Achievement | Effect |
|---------------------|--------|
| | |
| | |
| | |
| | |
| | |

FOCUS ON WRITING

- Evaluating Information** Review the Sumerian achievements you just read about. Then create a list of Sumerian achievements for your letter. Would this list replace some of the information you collected in Section 2?