

Investigating the Past

Overview/Objectives

Overview

In a Social Studies Skill Builder, students learn how social scientists reconstruct the lives of prehistoric humans by examining images of cave paintings and other artifacts.

Objectives

In the course of reading this chapter and participating in the classroom activity, students will

Social Studies

- explain how social scientists such as archaeologists, historians, and geographers investigate the past.
- hypothesize about the lives of prehistoric humans and compare ideas with those of social scientists.
- interpret a cave painting by using the methodology of social scientists.

Language Arts

- clarify an understanding of texts by creating logical notes.
- write expository compositions that offer persuasive evidence to validate arguments and conclusions.

Social Studies Vocabulary

Key Content Terms archaeologist, historian, geographer, artifact, prehistoric, ritual

Academic Vocabulary feature, environment, geometric, researcher, texture

Intro - Set the Stage

Our study of the ancient world begins with a look at the roots of human life and the beginnings of civilization. Many scientists believe that the earliest ancestors of humans first appeared in eastern Africa. Scientists have studied fossils and bones left by these early humans. This evidence has led scientists to believe that five major groups of early humans developed over millions of years. The places where the remains of these groups were discovered are shown on the map on the opposite page.

From these beginnings, humans spread to other parts of the world. Over time, these early people learned to grow crops. The first human settlements grew in regions where people found the resources they needed to survive.

One of these regions, in North Africa, is mostly desert. Through the desert flows the Nile River—the longest river in the world. The Nile had an enormous impact on the development of civilization. The Nile River begins in East Africa. The river flows north and empties into the Mediterranean Sea. Along the way, the Nile picks up lots of rich, dark soil. Each year, the river overflows its banks, flooding the land around it. Beginning in ancient times, the floodwaters left behind soil that was perfect for growing crops. This factor greatly influenced early human settlement in the Nile River valley.

Another region in which ancient people settled was in an area of land stretching from the Persian Gulf to the Mediterranean Sea. This region is known as the Fertile Crescent because of its rich (fertile) soil and its curved (crescent) shape when drawn on a map.

Ancient people living in the Fertile Crescent were able to grow plenty of wheat and barley. No longer needing to move constantly in search of food, people could settle down and build communities. Permanent shelters and a dependable food supply allowed people to advance in important ways. They learned to make stone and metal tools; to raise animals such as cows, sheep, and pigs; and to develop a system of writing. In time, settlements began trading with nearby groups. An exchange of people, goods, and ideas blossomed. The first civilizations had begun.

#1 Intro

Welcome to the world of ancient history. Studying history involves investigating what happened in the past and why. Ancient history concerns the distant past, from the earliest humans through the first great civilizations.

How can we learn about events that happened so long ago? People who study history are a lot like detectives conducting an investigation. They ask questions, study the evidence for clues, and form hypotheses (educated guesses).

Our investigation of the ancient past starts near the very beginning of human history. What was life like long, long ago?

One amazing clue about life long ago was discovered at Lascaux (lah-SKOH), France, by four teenagers. On September 12, 1940, the boys found a cave. Covering the walls and ceiling of the cave were paintings of animals. The paintings seemed very old. Who had created them? What did they mean?

How would you solve a mystery like this one? The clues are centuries old, and the witnesses are long gone. You might need the help of an expert detective, but who would that be?

In this chapter, you'll meet three kinds of experts who study the past. Then you'll look at some fascinating examples of cave art to see what this evidence can teach us about life long ago.

#2

Scholars who study human society are called social scientists. Many social scientists can help us study the past. Among these “history detectives” are archaeologists, historians, and geographers.

Archaeologists: Digging Up the Past Archaeologists study the past by examining objects that people have left behind. These artifacts are anything made or used by humans, such as clothing, tools, weapons, and coins. When archaeologists discover a place that has artifacts, they ask questions like these: Who lived in this place? When did they live here? What were they like? Then archaeologists study the artifacts for clues.

Historians: Recording the Past Historians are the recorders of the past. Human beings have been around for such a long time that historians tend to focus mostly on the last few thousand years, when people began leaving written records. Historians want to answer this question: What happened in the past? To find out, they study all kinds of artifacts and documents. They read diaries and letters. Besides asking what happened in the past, historians try to understand why events happened the way they did.

Geographers: Mapping the Past Geographers study the natural features of Earth, such as water, landforms, plants, and animals. Geographers also look at human-made features, such as towns, roads, bridges, and dams. These scientists help us answer such questions as: Where did people live? How did they use their environment to survive? Geographers often create maps to show what they have learned.

Social scientists who study prehistoric history face a unique challenge—a lack of evidence from this period. In fact, huge gaps of time have no evidence at all. Therefore, scientists may come up with different answers or theories about how humans came to be.

#3

Cave paintings like those at Lascaux, France, provide clues about what life was like in prehistoric times, before writing was invented. Caves with paintings thousands of years old have been found all over the world. Some paintings show what kinds of animals roamed the Earth and what methods people used to hunt them. Often, the paintings offer hints about people's beliefs.

Many of the rooms decorated with paintings are deep inside the caves. Scientists guess that cave artists used torches to work in these dark places. Some paintings are very large in size and taller than a person's height. Some paintings are found on high ceilings. Scientists guess that prehistoric artists built scaffolding, or planks raised above the floor, to reach the highest places.

Caves have also provided clues in the form of artifacts. Scientists have found bits of rope, lamps for burning animal fat, and tools for painting and engraving. Cave paintings and artifacts are amazing treasures that can help answer many questions about how humans lived in ancient times. But, as you will see, these treasures also raise new questions for scientists to puzzle over.

#4

This painting was found inside the cave at Lascaux, France. It was painted between 11,000 and 18,000 years ago.

The painting shows a scene from a hunt. The man is about to be gored (pierced by the horn of an animal). The animal, a woolly mammoth or a bison (a kind of buffalo), is wounded. There is a spear in its side, and the animal's insides spill to the ground. The man lies in front of the wounded animal. He wears a mask that looks like a bird. Next to the man is a long stick with a bird on top. The stick is probably a spear thrower, a kind of handle used to hurl a spear.

Paintings of humans are rare in cave art. Notice the simple drawing of the man, like a stick figure. The animal is much more realistic.

Many social scientists think that this painting was created as part of a hunting ritual. The artist may have been asking for a successful hunt. It is also possible that the painting is a record of an actual event, or it may simply be a decoration.

5

This image is a copy of one found at Lascaux. The real painting lies in a part of the cave that has been closed to protect the art.

The painting was created about 17,000 years ago. It shows many prehistoric animals, such as bulls, bison, and horses.

The painters used the cave's uneven walls as part of their composition. At the lower left, a ledge juts out from the wall. The artists painted the horses to look as though they were running along it.

Scientists have many ideas about why animal paintings were created. One idea is that the artists were trying to capture the "magical powers" of certain animals. Another idea is that the painters believed in the spirit world and were creating art to honor or influence their gods. Some scientists speculate that caves were places of worship and that paintings were used in rituals or ceremonies.

#6

This painting is in a cave in Argentina, South America. It shows a circular shape, a sticklike animal, and several handprints.

Paintings of shapes and handprints are fairly common in cave art. Their meaning, though, is a bit of a mystery. Many scientists believe that handprints were a way for artists to sign their paintings. Some scientists think that geometric shapes had special meanings in rituals.

Researchers tried singing inside one painted cave in France. They discovered that the sound was loudest in the painted areas. Their guess is that those areas were used for special gatherings.

#7

A prehistoric spear thrower was found in France. Made from a reindeer antler bone, it measures 10 inches long. It was probably made about 18,000 years ago.

The spear thrower has a leaping horse carved into the top. The artist engraved, or carved, hundreds of tiny dashes to show details in the horse's head. The artist must have cared a great deal about decorating this important hunting tool.

Some scientists believe that the artist carved the horse for decoration. But the carving may have been a good-luck charm to protect the hunter or make him or her more successful. It may have had some relation to the hunter's name. Or it may have been a way of identifying the clan that the hunter belonged to.

#8

Clay sculptures of two bison were found in a low room, deep inside a cave in France. They were made about 10,000 to 14,000 years ago. They measure 23 inches in length. The artist sculpted them from gold-colored clay. Carved lines show details such as the animals' faces, coat markings, and the fringe of fur below their powerful necks.

Scientists have two main ideas about why these sculptures were created. One idea is that the sculptures were a sign that the cave belonged to a certain clan. The other idea is that the sculptures were used in an important ceremony held deep inside the cave. Perhaps it was a coming-of-age ceremony to show that a person had passed from childhood to adulthood. One clue that supports this idea is that footprints of young people have been found near the sculptures.

#9

Prehistoric materials and tools include colored, rock-hard minerals and a grindstone used for grinding the minerals. Other tools include a sculptor's pick and an engraving tool.

Scientists study tools like these and try to guess how they were used. For example, scientists believe that cave artists made paints by grinding colored minerals into powder. They probably mixed the powder with animal fat or vegetable oil to create various colors.

You've already seen how prehistoric artists engraved some of their art. For painting, they may have used brushes made of moss, fur, or human hair. They may even have blown paint through hollow bird bones to create softer textures, such as shaggy winter coats on horses.

Summary

In this chapter, you've learned how social scientists investigate the past by using clues they find to form hypotheses.

Detectives Who Study the Past Social scientists might be archaeologists who examine artifacts that people have made and left behind, historians who study the written records that people began to leave in the last few thousand years, or geographers who look at the natural and human-made features of Earth.

Cave Art Caves have provided clues to the past for social scientists. Cave paintings and sculptures thousands of year old have been found all over the world. Artifacts also have been discovered in caves. The art and artifacts provide information about how people lived long ago.

Cave Art Tools Cave artists used sharp stones to grind colored minerals into powder. They mixed the powder with animal fat to create paint. They may have used moss, fur, hollow reeds, or their own hair as paintbrushes.

Early Hominids

Overview/Objectives

Overview

Students learn about the physical and cultural development of early hominid groups. In a Visual Discovery activity, students analyze images of various hominid groups and explore how physical and cultural adaptations gave later hominid groups advantages over earlier groups.

Objectives

In the course of reading this chapter and participating in the classroom activity, students will

Social Studies

- identify when and where various hominid groups lived.
- describe the physical and cultural adaptations of each hominid group.
- analyze how the capabilities of each hominid group—development of tools, use of fire, and living in groups—helped them survive.

Language Arts

- analyze text that uses the compare-and-contrast organizational pattern.
- use effective coordination and subordination of ideas to express complete thoughts.

Social Studies Vocabulary

Key Content Terms anthropologist, hominid, capability, migrate

Academic Terms skeleton, trait, intelligence, community, contribute

Lesson 2 - Early Hominids

Source: History Alive! The Ancient World - 2

Section 1 - Introduction

Prehistoric humans left clues about their lives in cave paintings. Scientists call these prehistoric humans hominids. In this chapter, you will learn about five important groups of hominids.

Three kinds of "history detectives" that study the past are archaeologists, historians, and geographers. The study of hominids involves a fourth type, paleoanthropologists. Paleoanthropologists specialize in studying the development and culture of the earliest hominids. (*Paleo* means "ancient.")

In 1974, an American paleoanthropologist named Donald Johanson made an exciting discovery. While searching for artifacts under a hot African sun, he found a partial **skeleton**. The bones included a piece of skull, a jawbone, a rib, and leg bones. After careful study, Johanson determined that the bones had come from a female hominid who had lived more than 3 million years ago. She is one of the earliest hominids ever discovered. Johanson nicknamed her "Lucy," from the Beatles' song "Lucy in the Sky with Diamonds," which was playing at his celebration party.

What have scientists found out about Lucy and other hominids? How were these hominids like us? How were they different? What abilities did each of the five hominid groups have? Let's find out.

Lesson 2 - Early Hominids

Source: History Alive! The Ancient World - 2

Section 2 - *Australopithecus Afarensis* : Lucy and Her Relatives

Scientists usually give Latin names to groups of living things. (Latin was the language of the ancient Romans who ruled a great empire for a thousand years, starting about 500

B.C.E.) An **anthropologist** in Africa called the earliest known group of **hominids** *Australopithecus* (aws-tray-loh-PIH-thuh-kuhs), meaning “southern ape.” Donald Johanson called Lucy’s group *Australopithecus afarensis*. The second part of this name refers to the Afar Triangle, the part of Africa where Lucy was found.

Through their studies of Lucy, scientists have learned a lot about early hominids. By assembling her bones, they know something about what she looked like. Lucy was short compared with humans today—between 3 and 4 feet tall. She had a mix of ape and human features. Her arms were long, but her hands and feet were similar to a modern human’s. She had a large head, and her forehead and jaw stuck out from her face.

The remains of other hominids like Lucy have been found in the same area. Scientists guess that Lucy’s relatives lived in Africa, about 3 to 4 million years ago.

How are hominids like Lucy related to later hominids and to us? Anthropologists often disagree about the answer to this question. One reason may be that anthropologists have so few clues to work with. Bones as old as Lucy’s are very hard to find. Even so, most anthropologists agree that Lucy and her relatives were very early forms of humans.

One discovery about Lucy was especially exciting. By studying her skeleton, scientists found out that she was a biped. That means she had the **capability** to walk on two feet. This gave Lucy and her relatives many advantages compared with animals such as gorillas and chimpanzees. With their hands free, the hominids could gather and carry food more easily. They could also use their hands to defend themselves and their children.

This biped **trait** was one key way in which Lucy resembled us. But in other ways, hominids like Lucy were quite different from modern humans. Lucy’s brain was only about one-third the size of ours. Scientists have not found any remains of tools from Lucy’s time. The study of Lucy’s remains indicate that these early hominids likely could not speak.

Lesson 2 - Early Hominids

Source: History Alive! The Ancient World - 2

Section 3 - *Homo Habilis*: Handy Man

A second group of hominids was discovered by the husband and wife team of Louis and Mary Leakey. When the Leakeys were searching for evidence of early hominids in Africa, they discovered some hominid bones. The bones were scattered among artifacts that looked like tools. The Leakeys named their discovery *Homo habilis* (HA-buh-lis), or "Handy Man," in honor of this hominid group's ability to make tools.

Handy Man lived a little closer to our time than Lucy did, about 1.5 to 2 million years ago. Like Lucy, this group combined ape and human features. They also walked on two feet. But they were taller than Lucy. Their features were slightly more humanlike, and their brains were twice the size of hers.

Scientists have discovered Handy Man remains only in Africa. Sometimes, the bones of more than one Handy Man were found together. It is likely that these hominids lived in groups. This would have helped them survive. They could have worked together to protect themselves against animal attacks. They also could have collected food over larger areas of land.

The tools found by the Leakeys were an important clue about this hominid group. Their larger brains and their ability to use tools were key differences between the Handy Man group and hominids like Lucy. These traits show that Handy Man was more advanced and more like modern humans than Lucy was.

Handy Man's tools were very simple. These hominids used animal bones as digging sticks and rocks as chopping tools. They also made sharp pieces of stone for cutting.

Making a tool, even a simple one, takes thought and effort. First, the hominids had to think about what kind of tool was needed. Then, they had to plan how to make it. Finally, they had to craft the tool themselves and try using it. Handy Man may even have passed these early skills on to others.

The ability to make tools helped Handy Man live better and longer than Lucy and early hominids like her. The use of cutting tools allowed these later hominids to tear the meat from dead animals. Crushing tools may have helped them crack animal bones, to eat the marrow inside. Handy Man hominids may even have dug or made traps for small animals.

Lesson 2 - Early Hominids

Source: History Alive! The Ancient World - 2

Section 4 - *Homo Erectus*: Upright Man

A third type of hominid was discovered in 1891 by a Dutchman named Eugene Dubois (doo-BWAH). While he and his team were searching for artifacts on the island of Java, off the southern coast of Asia, they found a new type of hominid skull.

In time, Dubois' team discovered the bones of many more hominids. As scientists assembled the bones, they observed that these hominids stood up straight. Dubois named this hominid group *Homo erectus* (UH-rek-tuhs), or "Upright Man." (At this time, Lucy and Handy Man had not yet been discovered.)

Upright Man lived on Earth longer than any other hominid group, from 1.8 million to 200,000 B.C.E. Scientists believe that they were the first hominids to **migrate** out of Africa. Their remains have been found in both Asia and Europe.

It is no wonder that scientists have found the bones of Upright Man in many places. This group of hominids was well-suited for traveling. They were taller and thinner than earlier hominids—some even reaching the height of modern humans. Their bones were very strong. And they were good walkers and runners.

The facial features of Upright Man looked more like those of modern humans than the faces of earlier hominids. Upright Man hominids had foreheads that were round and smooth. But they still had a large ridge above the eyes, a thicker skull, and a jaw that stuck out.

Like Handy Man, hominids in the Upright Man group were toolmakers. But their larger brains enabled them to invent more complex tools, including strong hand axes made of stone.

One of Upright Man's greatest advantages was the ability to use fire. Anthropologists have found burned animal bones in the same places as Upright Man remains. This is a clue that Upright Man may have used fire to cook animal meat.

Scientists aren't sure whether these hominids were hunters or merely gatherers, finding dead animals to eat. But studies of their tools and teeth show that they ate more meat than earlier hominids did. They feasted on red deer, elephant, rhinoceros, goat, boar, and oysters. The remains of an ancient campsite found in France have offered additional clues about how Upright Man lived.

Scientists guess that this group built oval huts by covering posts with tree branches. The group kept a fire burning in the center of the hut. It is likely that group members sat and slept on animal skins. They may have decorated their bodies with yellow-colored mud called ochre.

Scientists believe that Upright Man groups moved from place to place, building shelters with tools, and using fire to keep warm. These capabilities helped them travel farther and survive for longer periods than earlier hominids could. The ability to construct shelters allowed Upright Man to adapt to colder climates and live in areas without caves or other natural shelters. The ability to control fire helped them survive the cold, cook animal meat, and protect themselves from predators.

Lesson 2 - Early Hominids Source: **History Alive! The Ancient World**
- 2 Section 5 - *Homo Sapiens Neanderthalensis*: Neanderthal Man

In 1856, some mine workers in Germany's Neander Valley found a skeleton. It had thick bones and a ridge above the eyes, but was also very humanlike. Today, most scientists consider this fourth group of hominids to be a distinct type of *Homo sapiens* ("Wise Man"), the large-brained group that modern humans belong to. Scientists call this group *Homo sapiens neanderthalensis*, or Neanderthal (nee-AN-der-tahl) Man.

Neanderthals lived after Upright Man, from 200,000 to 28,000 years ago. Neanderthals lived in Africa, Europe, and parts of western Asia.

The appearance of the skeleton found in Germany led scientists to believe that Neanderthals walked hunched over, with their hands dragging on the ground. As it turned out, the skeleton was of an older man who had a bone disease. In reality, Neanderthals walked upright. They were shorter and stockier than modern humans, but they were also much stronger.

Most important, Neanderthals had large brains. They used their **intelligence** to become skilled toolmakers. More than 60 types of Neanderthal tools have been found. These tools required much more planning, skill, and knowledge than the tools made by earlier hominids. Neanderthals created knives, scrapers, and spear points. They learned how to make sharp, thin blades by breaking off the top of a rock and then chipping two or three sharp flakes from the original piece. The ability to make better tools improved Neanderthals' chances for survival. But their ability to work together helped even more. Neanderthals lived and traveled in groups. And they were the first early hominids to hunt in an organized group.

Scientists believe that Neanderthals may have had a sense of **community**. When members of a group died, their bodies were laid in burial mounds, along with hunting tools and flowers. This is a clue that Neanderthals cared about one another and had a sense of ritual.

When on a hunt, Neanderthals worked together to surround and trap an animal. Then they would close in and kill it with spears. Evidence suggests that if some hunters were injured, other group members would help them.

Paleoanthropologists have found some Neanderthal bones showing signs of serious breaks that had healed. These clues lead them to think that Neanderthals helped members of their group who were hurt or sick.

Scientists interpret these indications that Neanderthals cared for each other to mean that Neanderthals lived as a community. This capability would have given them benefits in surviving. For example, they would have been able to learn from the experience and the wisdom of older members of the group.

How exactly are Neanderthals related to the early modern humans? Scientists aren't sure. Judging from the remains that have been found of both groups, Neanderthals existed side by side with early modern humans for about 10,000 years. No one knows the reason why Neanderthal populations disappeared. All we know for certain is that only one type of *Homo sapiens* survived to become early modern humans.

Lesson 2 - Early Hominids

Source: History Alive! The Ancient World – 2

Section 6 - *Homo Sapiens Sapiens*: Doubly Wise Man

In 1879, an eight-year-old Spanish girl named Maria was off exploring a cave with her father when she made an amazing discovery. She found a cave room filled with ancient paintings of deer, bison, wild horses, and boars. They were the first prehistoric cave paintings ever discovered.

The people who created these ancient cave paintings were the earliest members of our own group, *Homo sapiens sapiens* (SAY-pee-enz), or “Doubly Wise Man.” *Homo sapiens sapiens* first appeared about 150,000 years ago. Most scientists believe that they originated in Africa. From there, they spread to Europe, Asia, and Australia. Eventually, they migrated to North and South America, probably traveling across land bridges, which were later covered by water.

The first modern humans looked more like us than the Neanderthals did. They had high, rounded skulls, large brains, small teeth, and slender bones. But their bodies were not as well adapted to the cold as those of Neanderthals. Early modern humans may have survived because of their ability to create better tools, shelter, and clothing.

As toolmakers, early modern humans were even more skilled than Neanderthals. They attached thin blades to bone, antler, and stone to create a wide variety of tools. They made tools used for engraving and sculpting. They fashioned needles for sewing animal skins together. They also built shelters of earth and stone.

These prehistoric humans were also better hunters than earlier hominids. They made hooks and spears to catch fish. Most important, they invented the spear thrower and the bow and arrow. Armed with these weapons, they could hunt from a distance, making hunting much safer.

Through their artwork, early modern humans left behind a fascinating record of their lives. They left paintings on the walls of their caves. Artists also carved and shaped images out of clay, bone, flint (a hard mineral), and ivory. They even created musical instruments.

Prehistoric artists created a variety of images. Some images came from the world around them, like the animals they hunted. Some images came from their imaginations, such as mythical creatures. These early artists also made patterns using shapes. Paleoanthropologists think the artists may have signed their work with handprints.

Why did early modern humans create art? Many scientists believe that they painted to express themselves. Some think that pictures were used to teach children. Others think that images had religious purposes.

One thing is certain. These early humans did not merely exist in their world. They had many feelings about it and created images to communicate those feelings. They had the ability to express thoughts to others through pictures and symbols. Some scientists believe that these abilities were able to **contribute** to the development of complex language, one of the capabilities that makes us fully human.

Lesson 2 - Early Hominids

Source: History Alive! The Ancient World - 2

Summary

In this chapter, you learned about the capabilities of five hominid groups.

“Lucy” and Her Relatives A scientist found the bones of a hominid who lived more than 3 million years ago in Africa. He nicknamed the bones Lucy. Lucy belonged to the group *Australopithecus afarensis*. She had the capability to walk on two feet.

Handy Man and Upright Man The group *Homo habilis*, or Handy Man, was taller than Lucy and had the capability to make simple stone tools. The group *Homo erectus*, or Upright Man, were the first hominids to migrate out of Africa into Asia and Europe. They stood up straight and had the capability to make tools, fire, and shelters to protect them from the cold.

Neanderthal Man and Doubly Wise Man The group scientists called *Homo sapiens neanderthalensis*, or Neanderthal Man, had large brains, made complex tools, and lived in communities. *Homo sapiens sapiens*, or Doubly Wise Man, made more complex tools, were skilled hunters, and created artwork

From Hunters and Gatherers to Farmers

Overview/Objectives

Overview

In a Writing for Understanding activity, students learn how the Neolithic development of agriculture led to a stable food supply, permanent shelters, larger communities, specialized jobs, and trade. Students use this knowledge to create a comic book about two Stone Age characters.

Objectives

In the course of reading this chapter and participating in the classroom activity, students will

Social Studies

- identify Neolithic settlements and explain the reason for their location.
- compare the lives of hunters and gatherers during the Paleolithic Age with the lives of people during the Neolithic Age.
- explain how the domestication of plants and animals created a stable food supply and led to important changes in shelter, communities, jobs, and trade.

Language Arts

- read aloud expository text fluently and accurately, with appropriate pacing, intonation, and expression.
- write expository compositions that follow an appropriate organizational pattern.

Social Studies Vocabulary

Key Content Terms Paleolithic Age, Neolithic Age, Fertile Crescent, Catal Hoyuk, domesticate, agriculture, nomad, trade, resource

Academic Vocabulary enable, temporary, rectangular, efficiently, major

Lesson 3 - From Hunters and Gatherers to Farmers

Source: History Alive! The Ancient World - 3

Section 2 - From Old Stone Age to New Stone Age

The Old Stone Age, or Paleolithic Age, began about 2 million years ago, with the first toolmaking hominids, and lasted until about 8000 B.C.E. It was during this time period that early modern humans developed. Like the hominids before them, early humans were hunter-gatherers. They wandered from place to place, hunting animals and gathering plants for food. Often, they took shelter in caves. Prehistoric cave painters left clues about their way of life.

The New Stone Age, or Neolithic Age, began when people started to farm and produce their own food. The discovery of farming did not happen all at once. Over thousands of years, people gradually learned to raise animals and plant crops. They eventually began to rely on these farms for their food. Now, rather than having to roam long distances in search of things to eat, people could settle down in one place.

The Neolithic Age began around 8000 B.C.E. and lasted until about 3000 B.C.E., when people learned to make tools out of metal instead of stone. During this time, farming developed in many places throughout the world, including parts of Europe, Africa, Asia, and the Americas.

Many Neolithic settlements were located in the Fertile Crescent, east of the Mediterranean Sea, where the land was fertile (good for growing crops). Here, people built towns such as Jericho (JER-ih-koh), Catal Hoyuk (CHAHT-ul hoo-YOOK), and Jarmo (see map).

People in settlements like these lived very different lives from earlier hunter-gatherers. They could now concern themselves with other matters such as building permanent shelters and forming larger communities. They could make better tools and clothing. And they could swap items they had with other communities to get the things they lacked. As you will see, these changes made life safer, more comfortable, and more interesting.

Lesson 3 - From Hunters and Gatherers to Farmers

Source: History Alive! The Ancient World - 3

Section 3 - Creating a Stable Food Supply

During the Paleolithic Age, people obtained food by hunting animals and gathering plants. They did not have a stable, or dependable, food supply. Wild plants and animals grew scarce when people stayed in one area for too long. And hunting was dangerous. Hunters were often injured or killed.

Gradually, people found ways to lessen their dependence on hunting and gathering. Instead of gathering wild plants, people discovered that they could plant seeds and harvest crops. Over time, farmers learned which seeds produced the most crops in the areas where they lived.

Early farmers also learned how to domesticate animals, to raise and use them for people's needs. They raised sheep, goats, and cattle for the meat. Goats and cattle also provided milk. Mules helped carry heavy loads and pull plows.

These two developments—the growing of crops and the domestication of animals—are called agriculture. The Neolithic Age began with the invention of agriculture. For the first time, people had some control over their food supply. Let's explore why this change was one of the most important advances in all of history.

Lesson 3 - From Hunters and Gatherers to Farmers

Source: History Alive! The Ancient World – 3

Section 4 - Making Permanent Shelters

The first great change agriculture brought about was the use of permanent shelters. During the Paleolithic Age, people had lived in caves or rough, tentlike structures. These were temporary shelters because hunter-gatherers were nomads. They had to move often, to follow the wild animal herds or to find new plants to eat. As people settled down to farm during the Neolithic Age, they built shelters that were more permanent.

In many areas, people used mud bricks, packed together, to build houses that were round or rectangular in shape. Sometimes, people added stones and tree branches to the mud to strengthen the walls and roof. These houses had openings high in the walls. Historians believe that people may have climbed ladders to reach the openings and enter the house.

Inside were several rooms. Places to store food were built right into the floor. Pits for cooking were also dug into the floor, and lined with clay. People may have filled the pits with water, dropping in hot stones to make the water boil for cooking.

The development of permanent shelters was important in several ways. Houses gave people protection from harsh weather and wild animals. Houses made life more comfortable. People could cook food in new ways. The long-lasting shelters enabled people to settle together in larger communities.

Lesson 3 - From Hunters and Gatherers to Farmers

Source: History Alive! The Ancient World – 3

Section 5 - Establishing Communities

The ability to raise food by farming allowed people to settle in permanent shelters. These structures, in turn, enabled people to form larger communities. In Paleolithic times, small bands of perhaps 20 to 60 people wandered from place to place in search of food. As people began growing food, they settled down near their farms. As a result, towns and villages grew up, like those at Jericho (in present-day Israel) and Catal Hoyuk (Turkey).

Living in communities made it possible for people to organize themselves more efficiently. They could divide up the work of producing food and other things they needed. While some people grew crops, others built houses and made tools.

Village dwellers also learned to cooperate to do a task more quickly. For example, toolmakers could share the work of making stone axes and knife blades. By working together, they could make more tools in the same amount of time.

With many of their basic needs now met, people had more time and energy for other activities. They could invent new ways of making their lives more comfortable and much safer. Larger communities could defend themselves more easily against their enemies. The Neolithic town of Jericho, for example, was protected by strong stone walls. All of these changes in farming villages led to growing populations.

Lesson 3 - From Hunters and Gatherers to Farmers

Source: History Alive! The Ancient World – 3

Section 6 - Developing New Jobs

Having a stable food supply allowed people to develop new kinds of jobs. In Paleolithic times, people's main job was finding enough food to survive. With farms providing steadier supplies of food, Neolithic people could develop more specialized skills.

A good example is the town of Catal Hoyuk, which dates back to about 6000 B.C.E. Historians believe that the townspeople of Catal Hoyuk worked in a variety of jobs. Besides farmers, there were weavers, basket makers, toolmakers, and traders.

Focusing on one job at a time gave people the opportunity to improve the ways they worked. In Catal Hoyuk, farmers learned how to grow more than 14 kinds of food plants. Clothing makers developed a way to spin and weave. They wove natural fibers such as wool and linen into comfortable cloth. In some regions, people mined flint so that stoneworkers could create sharper tools.

Neolithic people didn't merely want to survive. They wanted to make themselves, and their surroundings, more beautiful. They decorated their pottery and baskets with geometric shapes. Stoneworkers learned to polish stones to make shiny jewelry and mirrors. House builders added special rooms to honor the gods and goddesses they believed in.

One effect of the development of different jobs was to inspire workers to improve their skills. This led to newer and better ways of doing things. And different jobs added much greater variety to community life.

Lesson 3 - From Hunters and Gatherers to Farmers

Source: History Alive! The Ancient World – 3

Section 7 - Beginning to Trade

Another major change introduced in Neolithic times was the growth of trade. Paleolithic hunter-gatherers rarely traded with other groups. They were mostly concerned with the animals, plants, and other resources they found nearby. As people settled in towns and villages, trade became a more common activity.

Usually, people trade to get resources they do not have in their own area. As Neolithic people became more skilled in their crafts, they wanted materials that would improve the strength and beauty of the things they made. Getting those resources became the job of traders.

Traders often traveled hundreds of miles in search of these materials. They crossed mountains on foot, rode donkeys across deserts, and sailed the Mediterranean Sea on ships.

What kinds of things were traders looking for? Popular items included flint and obsidian. Obsidian is a black glass found at volcanic mountains. Craftspeople used it to make knife blades, arrowheads, and mirrors. People also traded for “beauty products” like shell ornaments and a red ore called hematite. Women rubbed hematite on their lips and cheeks to make them redder.

The growth of trade allowed people to make use of more resources. It also brought them into contact with people from distant places. These contacts helped spread ideas and knowledge throughout the ancient world.

Lesson 3 - From Hunters and Gatherers to Farmers

Source: History Alive! The Ancient World – 3

Summary

In this chapter, you learned how the development of farming changed people's lives between the Paleolithic Age and the Neolithic Age.

A Stable Food Supply During the Paleolithic Age, people lived as nomads, obtaining their food by hunting animals and gathering plants. Gradually, people discovered they could grow crops and domesticate animals. These two developments are called agriculture. Agriculture marked the beginning of the Neolithic Age.

Shelters and Communities As people began to farm, they built permanent shelters and formed communities. Towns and villages grew up near farms.

Jobs and Trade Living in communities allowed people to improve how they lived and worked. They created new jobs and traded for the resources they needed.

The Rise of Sumerian City-States

Overview/Objectives

Overview

In a Response Group activity, students learn how responses to geographic challenges resulted in the formation of complex Sumerian city-states.

Objectives

In the course of reading this chapter and participating in the classroom activity, students will

Social Studies

- describe the location and physical setting of Mesopotamia, including the Tigris and Euphrates river system.
- analyze geographic problems affecting ancient Mesopotamians and evaluate potential solutions.
- describe how Mesopotamians modified their physical environment to solve geographic problems.
- explain how the development of agricultural techniques, such as irrigation systems, led to the emergence of Sumerian city-states.

Language Arts

- support opinions with detailed evidence and with visual or media displays that use appropriate technology.
- deliver presentations on problems and solutions that establish connections between the defined problem and at least one solution and that offer persuasive evidence to validate the proposed solution(s).

Social Studies Vocabulary

Key Content Terms Mesopotamia, Tigris River, Euphrates River, Sumer, irrigation, levee, silt, city-state

Academic Vocabulary complex, material, maintain, layer, dispute

Lesson 4 - The Rise of Sumerian City-States

Source: History Alive! The Ancient World - 4

Section 1 - Introduction

In Chapter 3, you learned how people in the Fertile Crescent began farming and living in small villages. In this chapter, you'll see how small Neolithic villages grew into large, complex cities. These villages were located in a land of rolling hills and low plains called Mesopotamia (meh-suh-puh-TAY-mee-uh). This land is in modern-day Iraq. Mesopotamia is a Greek word that means the "land between the rivers." These two main rivers of the Fertile Crescent are the Tigris (TIE-gruhs) River and the Euphrates (yuh-FRAY-teez) River. Cities first appeared in the southern part of this land.

The earliest cities in this area date back to about 3500 B.C.E. These first cities were like small, independent countries. They each had their own ruler, as well as their own farmland which provided food. Suppose that you were visiting one of these early cities. You would see a walled settlement surrounded by farmland used to supply food for the city. You would see strong city walls built of sunbaked bricks. Moats, or ditches filled with water, would surround these walls and help keep out enemies. During an attack, people living outside the city walls would flee inside for protection.

As you gazed at the city, you might wonder how it came to be built. Why didn't people in Mesopotamia go on living in small villages, as their ancestors had done for thousands of years? Why did large city-states grow in the "land between the rivers"? In this chapter, you'll find out.

Lesson 4 - The Rise of Sumerian City-States

Source: History Alive! The Ancient World - 4

Section 2 - Mesopotamia: A Difficult Environment

It was not easy to live in the part of the Fertile Crescent called Mesopotamia. The northern part was hilly and received rain. The southern part had low plains, or flat land. The sun beat down fiercely on the plains between the Tigris River and the Euphrates River. There was little rain. The Mesopotamians were farmers, and their farms needed water. The rivers brought water to the plains in flood season, but for most of the year the soil was hard and dry.

On the plains, building materials were difficult to find. There were plenty of reeds (weeds that grow near rivers). But there were few trees to provide wood. Even stones were scarce. And there were few natural barriers to keep out enemies.

Mesopotamians faced four major problems as they tried to survive in this environment:

- food shortages in the hills
- an uncontrolled water supply on the plains
- difficulties in building and maintaining systems that provided water across village boundaries
- attacks by neighboring communities

Over time, Mesopotamians found solutions to these four problems. Let's explore how their solutions led to the building of some of the first cities in the world.

Lesson 4 - The Rise of Sumerian City-States

Source: History Alive! The Ancient World - 4

Section 3 - Food Shortages in the Hills

You learned in the last chapter that, in Neolithic times, people in some areas of the world began farming. The rolling foothills of the Zagros (ZAH-grihs) Mountains in northern Mesopotamia was one of these areas.

Mild weather and plentiful rains made the foothills a good place to farm. The wooded hills provided timber for building shelters. There were plenty of stones in the hills for toolmaking. Over several thousand years, these good conditions allowed the number of people in Mesopotamia to grow dramatically.

Then problems arose. Some historians believe that by 5000 B.C.E., farmers in the Zagros foothills did not have enough land to grow food for the increasing population. As a result, villages began to suffer from food shortages.

Below the foothills and to the south, the Euphrates and Tigris rivers ran through flat plains. The plains covered a large area of land, and few people lived there. During most of the year, the land was very hard and dry. And the plains lacked trees and stones for making shelters and tools.

Yet, the plains held promise, too. In the spring, both of the rivers flooded, bringing precious water to the land. Perhaps farms could be successful there.

Driven by the need to grow food, people moved out of the foothills and onto the plains. This region became known as Sumer(SOO-mer), and its people, the Sumerians.

Lesson 4 - The Rise of Sumerian City-States

Source: History Alive! The Ancient World - 4

Section 4 - Uncontrolled Water Supply in the River Valley

The farmers who moved to Sumer faced many challenges. One of the biggest problems was the uncontrolled water supply.

During the spring, rain and melted snow from the mountains flowed into the Tigris and Euphrates rivers, causing them to flood across the plains. But no one could be sure exactly when the floods would come. If it happened after farmers planted their crops, the young plants would be washed away.

For much of the rest of the year, the sunbaked soil was dry and hard as stone. Hot, strong winds blew thick layers of dust across the ground.

Faced with such dramatic seasonal changes, farmers had to constantly struggle to raise crops. They had either too little or too much water. To grow food, they needed a way to control the water so they would have a reliable water supply all year round.

Therefore, Sumerian farmers began to create irrigation systems for their fields. They built levees along the sides of the river to prevent flooding. When the land was dry, the farmers poked holes in the levees. The water flowed through the holes and into the thirsty fields.

Over time, the Sumerians learned other ways to control the supply of water. They dug canals to shape the paths the water took. They also constructed dams along the river to block the water and force it to collect in pools they had built. These pools, or reservoirs, stored the water for later use.

Lesson 4 - The Rise of Sumerian City-States

Source: History Alive! The Ancient World - 4

Section 5 - Building and Maintaining a Complex Irrigation System

Irrigation systems provided enough water for Sumerian farmers to grow plenty of food. But a new problem arose: how to maintain the irrigation system across village boundaries.

The irrigation system passed through a number of villages as it carried water from the river to the fields. The system needed constant care and repair. Canals became clogged with silt, so farmers had to clean them regularly. One clogged canal could disrupt the entire system.

Since villages were connected for miles around by these canals, farmers could no longer live apart, or in small groups. They had to work together for the common good.

Gradually, villages came to depend on one another to build and maintain this complex irrigation system. People who lived in different villages may have worked together to clear the silt from the canals to keep them open. Workers may have scooped water from one reservoir into another to ensure that water levels were balanced. As the Sumerians worked together, they began to create larger communities. Between 3500 and 3000 B.C.E., villages grew into towns. Some towns in Sumer became cities with populations as large as several thousand people.

Lesson 4 - The Rise of Sumerian City-States

Source: History Alive! The Ancient World - 4

Section 6 - Attacks by Neighboring Communities

As Sumerian cities grew, they fought over the right to use more water. Sometimes, people in cities located upriver (closer to where the river begins) built new canals or blocked other cities' canals. In this way, they kept water from reaching the cities that were downriver (farther from where the river begins). Disputes over water became so intense that they often led to bloodshed.

The Sumerians looked for ways to protect their cities from neighboring communities. The plains provided no natural barriers. There were no mountain ranges or rushing rivers to keep out enemies. The Sumerians began to build strong walls around their cities. They constructed the walls out of mud bricks that were baked in the sun until hard. The Sumerians also dug moats outside city walls to help prevent enemies from entering their cities. Most people lived in houses within the walled cities, but the farms lay outside. In case of attack, farmers fled the fields for safety inside the city walls.

The walled cities of Sumer were like independent countries. Historians call them city-states. By about 3000 B.C.E., most Sumerians lived in city-states.

Lesson 4 - The Rise of Sumerian City-States

Source: History Alive! The Ancient World - 4

Section 7 - From Small Farming Villages to Large City-States

As you've seen, beginning around 3500 B.C.E., the Sumerians progressed from living in small farming villages to building large, walled cities. How and why did this happen? The answer lies not only in the problems the Sumerians faced, but also in their solutions. A basic challenge for any group of people is how to provide food for itself. Food shortages had forced settlers in Mesopotamia to move from the foothills down to the river valley. There, farmers faced the problem of having either too much water or too little.

To control the water supply, Sumerians built a complex irrigation system. The system crossed village boundaries, so the Sumerians had to cooperate with one another. This led them to live in larger communities—the first cities.

These city-states were like independent countries. Often, they fought with one another. To defend themselves, the Sumerians built walls and dug moats around their cities. By 3000 B.C.E., the solutions to the challenges faced by the Sumerians had transformed Sumerian farming villages into walled city-states.

Lesson 4 - The Rise of Sumerian City-States

Source: History Alive! The Ancient World - 4

Summary

In this chapter, you have learned how geographic challenges led to the rise of city-states in Mesopotamia.

Food Shortages in the Hills A shortage of food forced people to move from the foothills of the Zagros Mountains to the plains between the Tigris and Euphrates rivers. This plains area became Sumer.

Controlling Water Supply on the Plains Farmers in Sumer faced times of flooding and drought. They built irrigation systems to create a steady water supply. Maintaining these complex systems required cooperation among villages.

From Farming Villages to City-States as villages grew into towns and cities, some became large city-states with protective walls around them.

Ancient Sumer

Overview/Objectives

Overview

In a Social Studies Skill Builder, students learn about the characteristics of civilization and analyze artifacts to determine how each characteristic was exhibited in ancient Sumer.

Objectives

In the course of reading this chapter and participating in the classroom activity, students will

Social Studies

- analyze artifacts from ancient Sumer and explain how they are examples of the characteristics of civilization.
- identify agricultural inventions that allowed Sumerian city-states to create a stable food supply and a complex society.
- explain the relationship between religion and the social and political order in Sumer.
- explain the evolution of Sumerian written language, from pictographs to cuneiform.
- apply the characteristics of civilization to modern-day society.

Language Arts

- offer persuasive evidence to validate conclusions.
- support opinions with detailed evidence.

Social Studies Vocabulary

Key Content Terms civilization, social structure, technology, merchant, artisan, scribe, ziggurat, culture, cuneiform, pictograph

Academic Vocabulary challenge, create, network, luxury, professional

Lesson 5 - Ancient Sumer

Source: History Alive! The Ancient World - 5

Section 1 - Introduction

The rise of Sumerian city-states began around 3500 B.C.E. In this chapter, you'll take a closer look at life in Sumer. Like an archaeologist, you'll consider evidence to try to answer this question about the distant past: Why do historians classify ancient Sumer as a civilization? A civilization is a society that has developed arts and sciences and organization.

Until about 150 years ago, archaeologists had no idea that the Sumerian people had lived at all. Then, in the mid-19th century, archaeologists began finding artifacts in the area of the Fertile Crescent that we call Mesopotamia. They uncovered tablets, pottery, and the ruins of cities. They were surprised to find writing in a language they had never seen before.

By studying artifacts, archaeologists have been able to learn a lot about Sumer. One artifact is the Standard of Ur(uhr). It was found where the ancient city of Ur once stood. You can see the standard on the opposite page. It is made of wood and decorated with pieces of shell and lapis lazuli, a semiprecious blue stone. The standard shows the Sumerians in times of peace and war. Artifacts like this one can tell us a great deal about daily life in ancient Sumer.

We now know that the Sumerians had a complex society. Some of the things they invented, like the plow and writing, are still in use today. But which characteristics of Sumer society cause historians to classify it as a civilization? Let's take a closer look at ancient Sumer.

Lesson 5 - Ancient Sumer

Source: History Alive! The Ancient World - 5

Section 2 - Characteristics of Civilization

Sumer was a challenging place to live. It had hot summers, little rain, and rivers that flooded the plains in the spring. Yet the Sumerians were able to overcome these challenges. They built complex irrigation systems and large cities. By 3000 B.C.E., most Sumerians lived in powerful city-states like Ur, Lagash (LAY-gash), and Uruk (UH-ruhk). But what did the Sumerians do to create a civilization?

To answer this question, we need to examine what civilization means. What characteristics make a society into a civilization?

Historians name several such characteristics, including these:

- a stable food supply, to ensure that the people of a society have the food they need to survive
- a social structure with different social levels and jobs
- a system of government, to ensure that life in the society is orderly
- a religious system, which involves both a set of beliefs and forms of worship
- a highly developed way of life that includes the arts, such as painting, architecture, music, and literature
- advances in technology
- a highly developed written language

Did Sumer have these characteristics? Let's find out what the evidence can tell us.

Lesson 5 - Ancient Sumer

Source: History Alive! The Ancient World - 5

Section 3 - Stable Food Supply

Civilizations need a stable food supply. A complex society can thrive only if its members have the food they need to survive.

The Sumerians invented two key things to help them create a stable food supply. One of these inventions was their complex irrigation systems. The Sumerians built networks of canals, dams, and reservoirs to provide their crops with a regular supply of water.

Their second invention was the plow. A plow is a tool used for tilling, or turning, the soil to prepare it for planting. Before the plow was invented, farmers used animal horns or pointed sticks to poke holes in the earth. Then they would plant seeds in the holes. This was a very slow way to farm. Farmers needed a faster way to prepare the land for planting.

The Sumerians made the first plow out of wood. One end of the plow was bent for cutting into the ground to turn the soil. Farmers themselves pushed and pulled the plow along the ground, or they used animals such as oxen to pull it.

Lesson 5 - Ancient Sumer

Source: History Alive! The Ancient World - 5

Section 4 - Social Structure

Civilizations have a complex organization, or social structure. A social structure includes different jobs and social levels. People at higher levels have greater status than others.

Archaeologists have found evidence that several classes of people lived in Sumer. At the top level were priests, landowners, and government officials. These people had the largest and most luxurious homes, near the center of the city. Their houses were two stories high. Evidence suggests that these mud houses had whitewashed walls.

At the middle level were merchants and artisans. Among the artisans were skilled metalworkers. They worked with such metals as gold, silver, tin, lead, copper, and bronze. Out of these materials, they made swords and arrowheads for the army. They made tools, like plows and hoes, for farmers. They also made luxury items, such as mirrors and jewelry, for the upper class.

The middle class also included farmers and fishers. They lived in small, mud-brick houses at the edge of the city. Farmers often worked to build or repair the irrigation systems. In times of war, they were forced to serve in the army.

At the bottom level of the social structure were slaves. They lived in their owners' homes and had no property of their own.

Lesson 5 - Ancient Sumer

Source: History Alive! The Ancient World – 5

Section 5 - Government

All civilizations have a system of government to direct people's behavior and make life orderly. Sumerian city-states were ruled by kings. The Sumerians believed that their gods chose these kings. This belief made kings very powerful. It also helped to reinforce the social order, because obeying the will of the gods was one of the Sumerians' strongest beliefs.

Sumerian kings enforced the laws and collected taxes. They built temples and made sure irrigation systems were maintained.

A king also led his city-state's army. All the city-states needed armies because of constant fighting over land boundaries and the use of water. Leading the army was one of the king's most important jobs.

A Sumerian army included both professional soldiers and temporary citizen-soldiers. Some were foot soldiers. Others drove chariots, which were wheeled vehicles pulled by horses.

Kings appointed officials to help with certain duties. Governors ruled the outlying towns. Scribes helped record laws. The Sumerians were the first people to develop a system of written laws.

One special group of officials patrolled the canals. They looked for damage and made sure that farmers did not take water illegally.

Lesson 5 - Ancient Sumer

Source: History Alive! The Ancient World - 5

Section 6 - Religion

All civilizations have some kind of religious system. A religious system includes both a set of beliefs, usually in a god or gods, and forms of worship.

In Sumer, religious beliefs influenced every part of daily life. The Sumerians tried to please their gods in all things, from growing crops to settling disputes. Religion bound the people together in a common way of life.

The ancient Sumerians expressed their religious beliefs by constructing temples and religious towers called ziggurats (ZIHG-guh-rats). It was the king's duty to build and maintain these ziggurats. The towers were platforms made of mud bricks, with shrines on the highest tier. Ziggurats were so large that they could be seen from 20 miles away. Some were as high as 8 stories and as wide as 200 feet.

The Sumerians believed that their gods lived in the ziggurats, most likely in the special shrines at the top. Attached to the outside walls of each ziggurat was a long staircase that the gods could use to climb down to Earth. Kings and priests stood inside the towers to ask for the gods' blessings.

Sumerian statues also expressed religious beliefs. Many of these statues were detailed and lifelike. They showed people worshipping the gods, often with eyes gazing upward. The Sumerians believed that the gods were pleased when people showed these signs of devotion, or love and obedience.

The Sumerians had many kinds of religious ceremonies. Often, musicians played at these ceremonies. Some ceremonies may have involved human sacrifice, the ritual killing of a person as an offering to the gods.

Lesson 5 - Ancient Sumer

Source: History Alive! The Ancient World - 5

Section 7 - The Arts

All civilizations have a highly developed culture, including the arts. Arts include creative forms of expression such as painting, architecture, and music.

There were many kinds of artists and artisans in ancient Sumer. Metalworkers made objects, like weapons and cups. They made decorative items, such as mirrors and jewelry, too. Architects designed temples and ziggurats.

Music was another important art in Sumer. The Sumerians believed that music brought joy to gods and people alike. Musicians sang and played instruments during temple ceremonies. They wrote love songs and entertained guests at feasts.

Sumerian musicians played a variety of instruments, including drums and pipes. One favorite was a small harp called a lyre. Lyres were wooden instruments made of a sound box and strings. A wooden bar held the strings in place at the top. Lyre makers often decorated their instruments with precious stones and with carvings made of horn. These decorations show how much the Sumerians valued music.

Lesson 5 - Ancient Sumer

Source: History Alive! The Ancient World - 5

Section 8 - Technology

All civilizations create new forms of technology. The Sumerians made several technological advances.

The most important Sumerian invention was the wheel. The earliest examples of the wheel date back to 3500 B.C.E. Sumerian potters, or pottery makers, first used wheels as a surface for shaping clay into pots. Potters' wheels spun, flat side up, on an axle. The Sumerians discovered that a wheel that was flipped onto its edge could be rolled forward. They used this discovery to create wheeled carts for farmers, and chariots for the army. They built the wheels by clamping pieces of wood together.

It would be hard to discover a more powerful invention than the wheel. Before the wheel, people had to drag their goods on flat-bottomed carts called sledges. The sledges often got stuck in mud, and they couldn't support heavy loads. Wheeled carts made it much easier to move goods over long distances. Oxen could pull three times more weight on wheeled carts than on sledges.

Another technological advance was the arch. Sumerian arches were inverted (upside-down) U- or V-shaped structures built above doorways. To build arches, the Sumerians stacked bricks, made of clay and straw, to rise from the walls in steps until they met in the center.

Arches added strength and beauty to Sumerian buildings. They became a common feature of temple entrances and upper-class homes. Some historians say that the arch is the Sumerians' greatest architectural achievement.

Lesson 5 - Ancient Sumer

Source: History Alive! The Ancient World - 5

Section 9 - Writing

A final characteristic of civilizations is a highly developed written language. The Sumerians created a written language called cuneiform. This name comes from the Latin word for "wedge." The Sumerians used a wedge-shaped stylus (a sharp, pointed tool) to etch their writing in clay tablets.

Sumerians developed cuneiform around 2400 B.C.E. The earliest examples of cuneiform show that it was used to record information about the goods people exchanged with one another. At first, cuneiform writing may have contained as many as 2,000 symbols to stand for ideas and sounds. Over time, this number was reduced to about 700.

Cuneiform was based on an earlier, simpler form of writing that used pictographs. Pictographs are symbols that stand for real objects, such as a snake or water. Scribes used a sharpened reed to draw the symbols on wet clay. When the clay dried, the marks became a permanent record.

Lesson 5 - Ancient Sumer

Source: History Alive! The Ancient World - 5

Summary

In this chapter, you have learned about the characteristics of Sumer society that made it a civilization.

Stable Food Supply Ancient Sumerians invented an irrigation system and the plow to help them create a stable food supply.

Social Structure, Government, and Religion Ancient Sumer had a complex social structure with different jobs and social levels. The government was led by kings. Religious beliefs influenced every part of daily life.

Arts, Technology, and Writing Ancient Sumerians had a highly developed culture that included the creative arts of painting, architecture, and music. The Sumerians' most important technological invention was the wheel. They also created a written language called cuneiform that was based on pictographs.

Exploring Four Empires of Mesopotamia

Overview and Objectives

Overview

In a Problem Solving Groupwork activity, students create “mechanical dioramas” that illustrate major achievements of the Akkadian, Babylonian, Assyrian, and Neo-Babylonian empires that ruled Mesopotamia from approximately 2300 to 539 B.C.E.

Objectives

In the course of reading this chapter and participating in the classroom activity, students will

Social Studies

- identify the location of the Akkadian, Babylonian, Assyrian, and Neo-Babylonian Empires.
- describe the military, economic, and cultural achievements of early Mesopotamian empires, such as Hammurabi’s Code.
- evaluate the importance of Mesopotamian achievements.

Language Arts

- relate the speaker’s verbal communication to the nonverbal message.
- use effective rate, volume, pitch, tone, and nonverbal elements to capture audience interest.

Social Studies Vocabulary

Key Content Terms empire, capital, tribute, code of laws, economy, siege

Academic Vocabulary strategy, assemble, technique, invader, unify

Lesson 6 - Exploring Four Empires of Mesopotamia

Source: History Alive! The Ancient World - 6

Section 9 - Life in the Neo-Babylonian Empire

Nebuchadnezzar worked hard to restore the splendor that Babylon had enjoyed under Hammurabi. From 605 to 562 B.C.E., he rebuilt the city's ziggurat. This huge structure was several stories high. The Babylonians called it the "House of the Platform of Heaven and Earth."

Nebuchadnezzar decorated his palace with lush gardens. The gardens were planted on rooftops and tall terraces so the greenery would cascade down the walls. A watering system kept the plantings fresh and green. These Hanging Gardens of Babylon became famous. This human-made display was viewed as one of the great wonders of the ancient world.

The Babylonians were also skilled in mathematics and astronomy. They created the first sundial, a device that uses the sun to tell time. They made discoveries that led to our present-day system of a 60-minute hour and a 7-day week.

The Neo-Babylonian Empire lasted only 75 years. Then, in 539 B.C.E., a new conqueror named Cyrus (SIE-ruhs) swept into Babylon from the east. He was the leader of the Persian Empire.

The Persians came from the land we now call Iran. For about 200 years, they ruled the most powerful empire in the world. Then the Persians were conquered by a man named Alexander the Great.

Lesson 6 - Exploring Four Empires of Mesopotamia

Source: History Alive! The Ancient World - 6

Summary

In this chapter, you read about the most important achievements of the four empires that once ruled Mesopotamia.

The Akkadian Empire King Sargon created the world's first empire. The Akkadians developed their own language. Artists carved beautiful relief sculptures on stones.

The Babylonian Empire King Hammurabi created a code of laws that applied to everyone in the empire. Babylonian agriculture and trade thrived under his rule.

The Assyrian Empire The Assyrians honored their powerful kings with beautiful palaces and huge sculptures. They built some of the earliest aqueducts.

The Neo-Babylonian Empire King Nebuchadnezzar restored the splendor of King Hammurabi's time. His Hanging Gardens of Babylon became famous.

Lesson 6 - Exploring Four Empires of Mesopotamia

Source: History Alive! The Ancient World - 6

Section 1 - Introduction

Ancient Sumer flourished in Mesopotamia between 3500 and 2300 B.C.E. In this chapter, you will discover what happened to the Sumerians and who ruled Mesopotamia after them.

The city-states of ancient Sumer were like small independent countries. They often fought over land and water rights. They never united into one group. Their lack of unity left them open to attacks by stronger groups.

About 2300 B.C.E., the Akkadians (uh-KAY-dee-unz) conquered Sumer. This group made the Sumerian city-states a part of an empire. An empire is a large territory where groups of people are ruled by a single leader or government. Groups like the Akkadians first conquer and then rule other lands.

In this chapter, you will learn about four empires that rose up in Mesopotamia between 2300 and 539 B.C.E. They were the Akkadian Empire, the Babylonian (bah-buh-LOH-nyuhn) Empire, the Assyrian (uh-SIR-ee-un) Empire, and the Neo-Babylonian Empire.

Lesson 6 - Exploring Four Empires of Mesopotamia

Source: History Alive! The Ancient World - 6

Section 2 - The Akkadian Empire

For 1,200 years, Sumer was a land of independent city-states. Then, around 2300 B.C.E., the Akkadians conquered the land. The Akkadians came from northern Mesopotamia. They were led by a great king named Sargon. Sargon became the first ruler of the Akkadian Empire.

Sargon was both a strong king and a skilled general. He built his empire through effective military strategies. First, he assembled a large army. Then, he taught his soldiers to fight in tight formations. Soldiers carrying shields stood at the front of the formation. Behind this line stood soldiers carrying spears. The spear carriers extended their weapons between the shields. Sargon used his military skills to win territory for his empire. After defeating the king of the city-state of Uruk, Sargon had gained control of all of Mesopotamia, including Sumer.

To keep control of his empire, Sargon used very clever political strategies. He destroyed the walls of many cities to make it harder for people to rebel. He also demanded the loyalty of the governors of city-states. If they were disloyal, Sargon replaced them with his own men. And he became the first king to decree that his sons rule after his death.

Sargon lived to be a very great age. His name soon passed into legend. He and the Akkadians had created the world's first empire. This was their greatest achievement.

Lesson 6 - Exploring Four Empires of Mesopotamia

Source: History Alive! The Ancient World - 6

Section 3 - Life Under Akkadian Rule

Sargon ruled his empire for 56 years. During that time, he made the city of Agade (uh-GAH-duh), in northern Mesopotamia, the empire's capital. He built up the city with tributes collected from the people he conquered. Agade became a cultural center, with many beautiful temples and palaces. It was one of the richest and most powerful cities in the world.

The Akkadians may have ruled Sumer, but the Sumerian culture lived on. The Akkadians farmed using the Sumerians' irrigation techniques. To record information, they used Sumer's system of cuneiform writing. They even worshipped the same gods and goddesses, although they called them by different names. Religion stayed central to the social order, and kings continued to rule in the name of the gods.

The Akkadians had their own cultural achievements. Over time, their language replaced the Sumerian language. In art, they became especially well known for their skillful three-dimensional sculptures. Artisans also carved relief sculptures on stones. These carved stones are called steles. The Victory Stele is a famous example. It was created to celebrate a military victory by Sargon's grandson, King Naram-Sin. The stele shows Naram-Sin leading his victorious army up a mountain slope. Some of his enemies are crushed underfoot. Others die, flee, or beg for mercy.

Sargon had hoped that his empire would last for a thousand years. But later kings found it difficult to rule such a large territory. The empire grew weak. After about 200 years, the Akkadian Empire fell to new invaders from the north.

Lesson 6 - Exploring Four Empires of Mesopotamia

Source: History Alive! The Ancient World - 6

Section 4 - Hammurabi and the Babylonian Empire

For a time after the fall of the Akkadians, Sumer was once again a group of city-states. The next ruler to unite all of Mesopotamia was a king named Hammurabi (hah-muh-RAH-bee). Hammurabi was the king of Babylon (BAH-buh-luhn), a small city-state in central Mesopotamia. After conquering the rest of Mesopotamia, Hammurabi made Babylon the capital of his empire. The region under his rule became known as the Babylonian Empire, or Babylonia. Hammurabi is best known for his code of laws, which he wrote from 1792 to 1750 B.C.E.

Hammurabi used the code of laws to unify his empire and to preserve order. He based the laws not merely on his own authority, but on the word of the gods. Hammurabi claimed that the gods had told him to create laws that applied to everyone in the empire. Laws that were based on the gods' will could never be changed. The code of laws was written on a stele and placed in a temple for everyone to see.

Hammurabi's code was detailed. It covered many situations, such as trade, payment for work, marriage, and divorce. The code spelled out punishments for crimes, such as stealing or causing injury. For example, if a poorly built house were to collapse and kill its owner, then the builder could be put to death. If the owner's son rather than the owner were killed in the collapse, the builder's son could be put to death.

Laws like this one seem harsh to us now. Yet Hammurabi's code was an important achievement. Although the laws and punishments did not treat all people equally, the code was the first set of laws to apply to everyone.

Lesson 6 - Exploring Four Empires of Mesopotamia

Source: History Alive! The Ancient World - 6

Section 5 - Life in the Babylonian Empire

Babylonia thrived under Hammurabi. He worked to unite the people of his empire. He made the Babylonian god, Marduk (MAHR-dook), supreme over other gods. He built roads and created a postal service.

Agriculture and trade flourished. Hammurabi was careful to maintain irrigation systems properly so that land remained fertile and provided plenty of food. Because the city of Babylon was on the banks of the Euphrates River, it became an important center of trade. Babylonians traded with people all along the Persian Gulf. They traded grain and woven cloth for wood, gold, silver, precious gems, and livestock (animals).

Trade helped the empire's economy. Many types of artisans used materials brought back from distant lands. The arts also flourished. Writers wrote historical poems, some of which survive to this day.

Most important, Babylonian society was unusually fair for its time. The laws treated the various classes differently, but even slaves had some rights. Slaves could work elsewhere and keep their wages. They could own property. If they saved enough money, they could even buy their freedom.

Women also had more rights than they did in most ancient societies. Even though their fathers chose their husbands, women could own property. They could also keep money of their own.

Hammurabi was proud of his achievements. He once wrote:

I rooted out the enemy above and below.

I made an end of war.

I promoted the welfare of the land. . . .

I have governed them [the people] in peace.

I have sheltered them in my strength.

Lesson 6 - Exploring Four Empires of Mesopotamia

Source: History Alive! The Ancient World - 6

Section 6 - The Assyrian Empire

The line of kings begun by Hammurabi did not continue to rule Babylonia for long. Over the next several hundred years, a number of groups ruled parts of what had been the Babylonian Empire.

The next great empire in Mesopotamia was created by a warlike people called the Assyrians. Assyria lay to the north of Babylon. The Assyrians had lived in Mesopotamia for a long time. They had briefly established their own empire before Hammurabi conquered them. They rose to power again toward 900 B.C.E., when a series of rulers of Assyria began preparing for war. With a newly trained army, the Assyrians began to expand their territory.

The Assyrians were feared for their military might and their cruelty. Their greatest achievements were their new weapons and their war strategies. They perfected the use of horses and iron weapons in battle. They also became greatly skilled at siege warfare. In a siege, army soldiers camp outside a city and repeatedly attack it until the city falls. The Assyrians developed new ways of attacking cities. They were the first to use battering rams. These long, heavy beams on wheels were used for breaking down walls. The Assyrians also built moveable towers that were rolled up to a city's walls. Soldiers used the towers to climb over the walls.

The Assyrians were often ruthless. They might force entire populations to leave areas they had recently conquered. The Assyrians spread tales of their cruelty far and wide. Creating fear among their enemies was part of the Assyrian military strategy.

Lesson 6 - Exploring Four Empires of Mesopotamia

Source: History Alive! The Ancient World - 6

Section 7 - Life Under Assyrian Rule

The Assyrian Empire was ruled by powerful kings. Religion, however, remained very important in the social and political order. Even kings were obliged to obey the gods.

The Assyrians believed that their kings were special beings. To honor them, the Assyrians built beautiful palaces. The great palace in the capital city of Nineveh (NIH-nuh-vuh) had many rooms. Some palaces were built on tall mounds, to raise them higher than the surrounding buildings. Huge sculptures of winged bulls or lions, with human faces, stood at the entrances.

Like other societies in Mesopotamia, the Assyrians dug canals to irrigate their land and keep it fertile for farming. They also built some of the first aqueducts. Aqueducts were pipes or channels used to carry water. A system of canals and aqueducts brought drinking water to Nineveh from 30 miles away.

Assyrian artisans were known for their two-dimensional sculptures called bas-reliefs. Many of their most famous bas-reliefs were on palace walls. They were amazingly realistic. Often they showed the king hunting, fighting in battle, or enjoying family life. The Assyrians used ivory to decorate thrones, beds, chairs, and doors.

The Assyrian Empire lasted about 300 years. At its height, it stretched from Egypt to the Persian Gulf. But its weakness lay in being too vast a territory to control. The army was stretched thin, and the Assyrians could not fight off neighbors who rose up against them. In 612 B.C.E., Nineveh was plundered by a combined army of Babylonians, Scythians, and a group called the Medes. The Assyrians' power was broken forever.

Lesson 6 - Exploring Four Empires of Mesopotamia

Source: History Alive! The Ancient World - 6

Section 8 - The Neo-Babylonian Empire

After the fall of Nineveh, the Babylonians once again took control of Mesopotamia. They established a new empire, the Neo-Babylonian Empire. Neo means “new.”

The new empire’s most famous king was Nebuchadnezzar II (neh-byuh-kuh-DREH-zehr). A ruthless military leader, he reigned from 605 to 562 B.C.E.

Nebuchadnezzar expanded his empire whenever he could. He drove the Egyptians out of Syria. He also conquered part of Canaan (present-day Israel), the home of the Israelites, or Jews. When the Israelites rebelled, he took most of them captive and brought them to Babylonia. Many of them were never able to return to their homeland.

As a military leader, Nebuchadnezzar knew that it was important to keep the capital city of Babylon safe. He had an inner wall and an outer wall built around the city. These walls were so thick that two chariots could pass each other on top of them. Towers, for archers to stand on, were placed on the walls. Finally, a moat was dug around the outer wall and filled with water. During peacetime, people used bridges to cross the moat and enter the city. In times of war, the bridges were dismantled.