

WORLD HISTORY

Chapter 1 Resources

The First Humans, Prehistory–3500 B.C.

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Vocabulary Activity 1

The First Humans, Prehistory–3500 B.C.

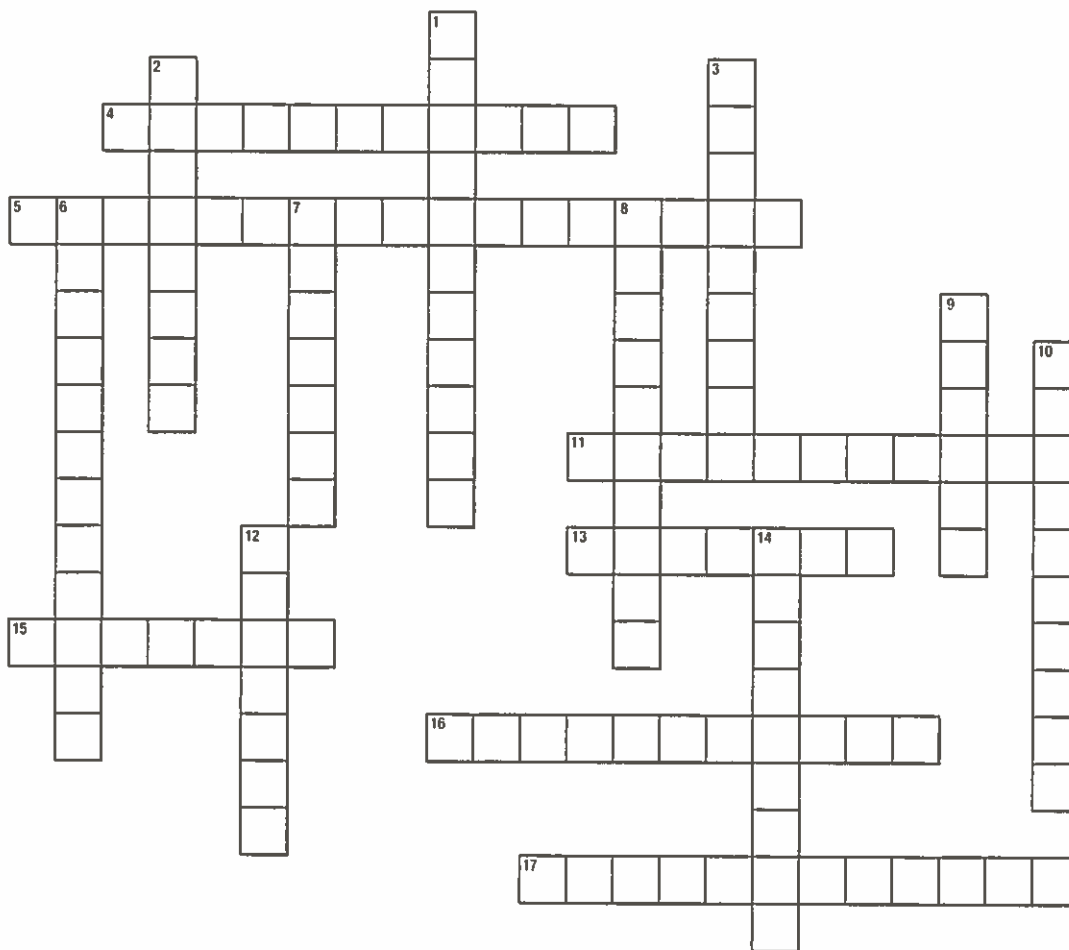
DIRECTIONS: Fill in the terms across and down on the puzzle that match each numbered definition.

Across

- 4. science of unearthing and interpreting objects from past societies
- 5. technique for determining the age of organic remains (two words)
- 11. to tame for human purposes
- 13. human or humanlike creature
- 15. remains of humans
- 16. wise human beings (two words)
- 17. complex, highly organized society

Down

- 1. age in which humans used simple stone tools
- 2. object or remnant of human life
- 3. 3000 to 1200 B.C. (two words)
- 6. study of humans and humanlike creatures
- 7. skilled craftsperson
- 8. skills and knowledge available to a people for survival
- 9. people who move from place to place
- 10. period before people developed writing
- 12. way of life of a people as shown by their knowledge, language, and habits
- 14. Greek word meaning "new stone"





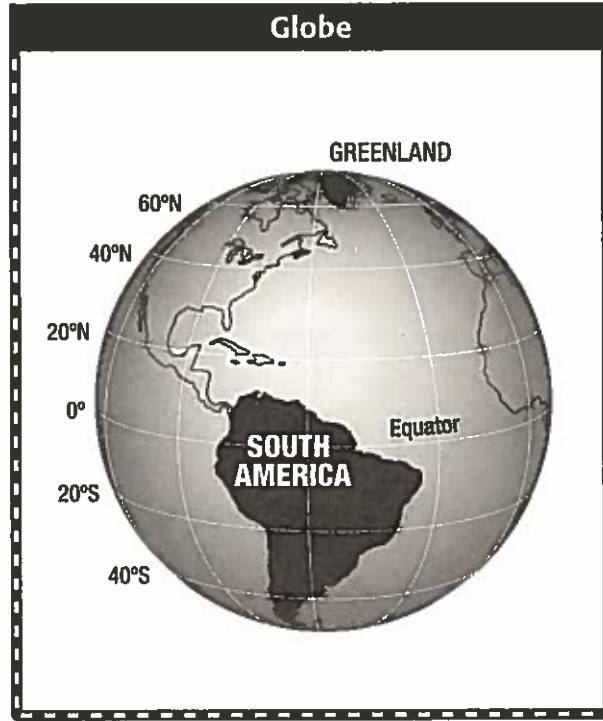
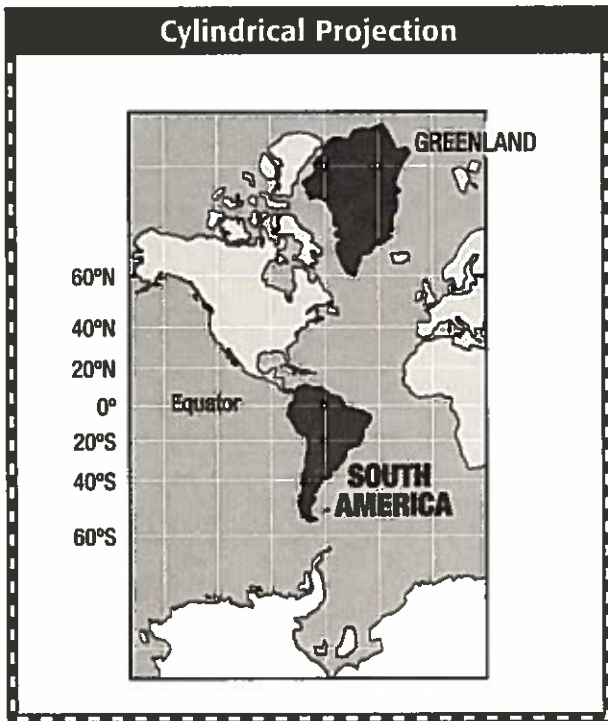
Skills Reinforcement Activity 1

Understanding Map Projections

Mapmakers, also called cartographers, use map projections to represent the earth's spherical surface on flat maps. Although extremely useful for study and navigation, flat maps cannot accurately represent both the shape and size of land areas. Cylindrical

Projection (Mercator) maps like the one below give the directions and accurate shapes of areas of land and water, but they distort the size of land areas. The greater the distance between a land area and the Equator, the greater the distortion.

DIRECTIONS: Compare the diagram of a globe (or use a real globe, if possible) to the Cylindrical Projection map below. Then answer the questions that follow.



1. Without referring to the illustrations, which do you already know to be larger—South America or Greenland?

2. Which represents the relative sizes of South America and Greenland more accurately—the Cylindrical Projection map or the globe? Explain why.

3. Why are Cylindrical Projection maps particularly well suited for use in navigation?

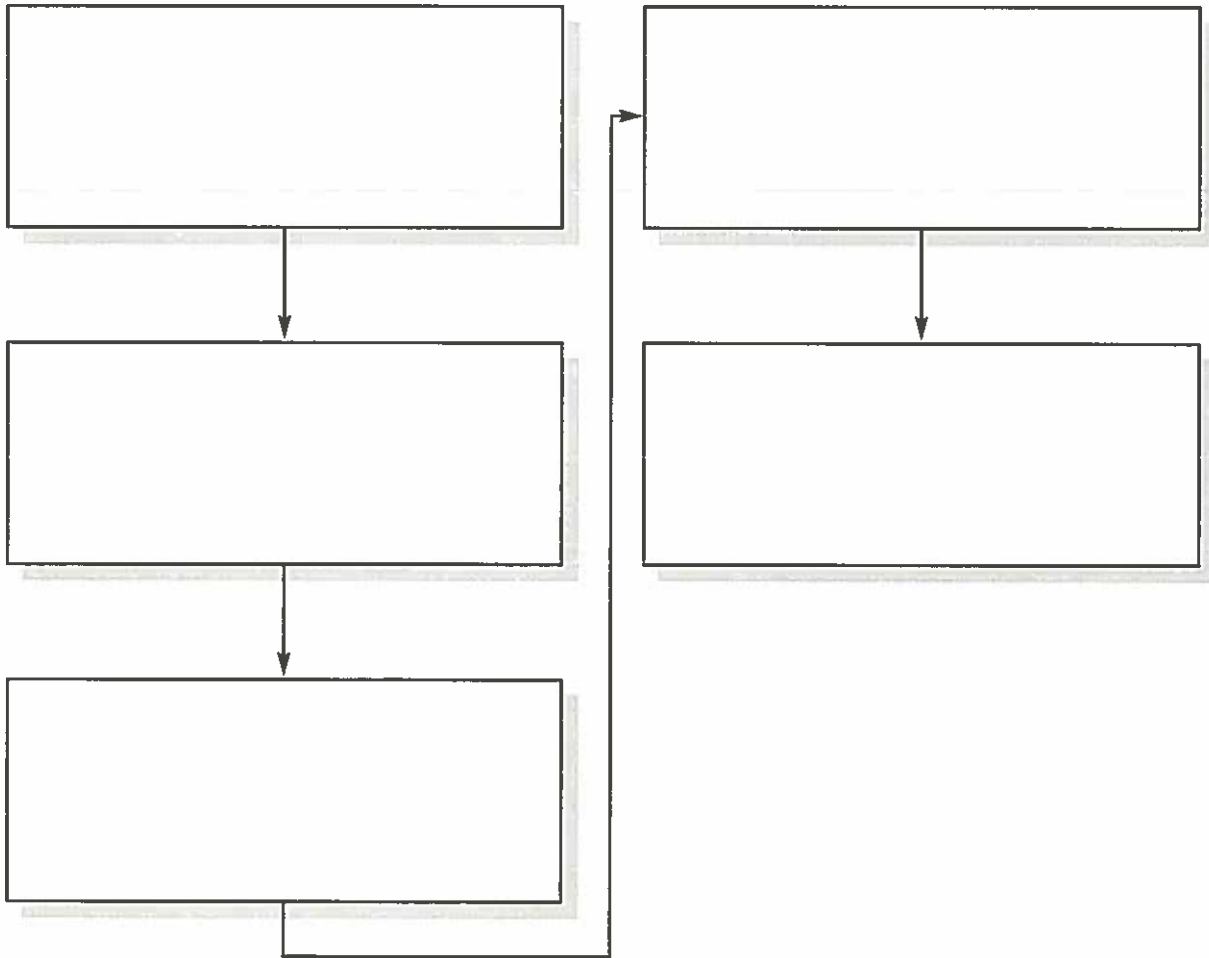
Critical Thinking Skills Activity 1

Determining Cause and Effect

When you determine cause and effect, you first look for a cause—something that makes something else happen. Then you look for the effect—the result of the cause. The rise of cities, for example, produced many economic, political, and social changes.

DIRECTIONS: To show the emergence of civilizations as a chain of causes and effects, fill in the flow chart by putting the following events in the correct order. Then extend your flow chart by adding two or more events that continue the chain of causes and effects.

- The earliest civilizations arose in river valleys.
- People looked for places where water was plentiful and soil was fertile to establish permanent farming communities.
- Farming replaced hunting and gathering as a means of procuring food.
- Farming peoples settled in river valleys like those of the Nile and Indus.
- Neolithic people domesticated plants and animals.



★ HISTORY AND GEOGRAPHY ACTIVITY 1



The Huang He

By the beginning of the Bronze Age (around 3000 B.C.), large numbers of people were concentrated in the river valleys of Mesopotamia, Egypt, India, and China. The Huang He (Yellow River) is the cradle of Chinese civilization. It stretches across China for more than 2,900 miles (4,666 km).

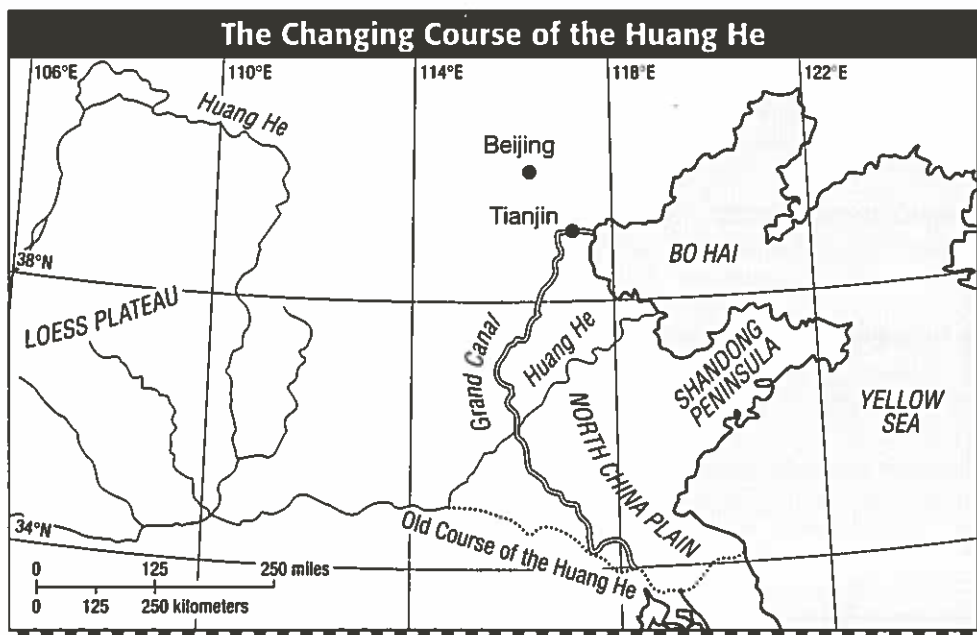
With more than a billion tons of fine, yellow silt flowing downriver annually from the Loess Plateau along a twisting route of right-angle bends, the riverbed of the Huang He continuously builds up. Over the centuries, disastrous floods have ruptured protective dikes and inundated the North China Plain, often resulting in changes to the course of the Huang He.

The source of the Huang He is in the eastern highlands of Tibet, at an altitude of about 15,000 feet (457 m). After descending rugged gorges, it crosses a plateau and then falls again to a flat lower basin. Along the

lower stretch, much of the riverbed sits above the surrounding farmland. When raging waters cut through dikes, floods can injure millions and bury whole villages with silt.

Changes in the Huang He's course during the past several thousand years have caused the point where the river enters the Yellow Sea to vary by as much as 500 miles (800 km). A cartographer who wants to be historically accurate must determine the exact location of the river at a given time.

For example, from 2278 to 602 B.C., the Huang He took a northerly route, flowing through the city of Tianjin to enter the nearby Bo Hai. From 602 B.C. to A.D. 70, the Huang He and its mouth shifted to the south of Shandong Peninsula, but from A.D. 70 to 1048, the river again shifted north. There have been at least nine major changes in the river's course in the last 2,200 years.



The present location of the mouth of the Huang He reflects a significant change that occurred in 1858. For the prior 500 years, the river had followed the "Old Course."

HISTORY AND GEOGRAPHY ACTIVITY 1 (continued)

The absolute, or exact, location of a place can be determined by its coordinates on a map grid of north-south meridians (longitude lines) and east-west parallels (latitude lines). Degrees of longitude give the distance of any place east or west of the Prime Meridian, and degrees of latitude give distance north or south of the Equator. The

coordinates for any point on a map, then, are a pair of numbers giving the latitude and longitude.

To draw a river on a map, a cartographer must be able to locate every point along the river's course exactly on the map's grid. At present the Huang He enters the Bo Hai at about 38°N latitude and 119°E longitude.

APPLYING GEOGRAPHY TO HISTORY

DIRECTIONS: Answer the questions below in the space provided.

1. What information do you need in order to give the absolute location of a place?

2. What was the absolute location of the mouth of the Huang He during the years it was located near Tianjin?

3. What was the absolute location of the mouth of the Huang He when it was located on the Old Course south of Shandong?

4. Changes in the course of the Huang He occurred abruptly. What events probably took place in 602 B.C. and A.D. 70?

Critical Thinking

5. **Predicting Consequences** As the Huang He has shifted its course over the centuries, what might have been the consequences of these changes to the peoples who live along the river?
6. **Making Inferences** The Huang He was given its name, which means "yellow river," because of the yellow loess suspended in its waters. Why is the Huang He nicknamed "China's Sorrow"?

Activity

7. Serious floods have been part of the history of the Mississippi River. Using a map of the United States, determine the absolute locations of the headwaters (source) and delta of the Mississippi River, as well as of its key river ports. Then research the efforts that have been made since 1900 to control the Mississippi's flooding.

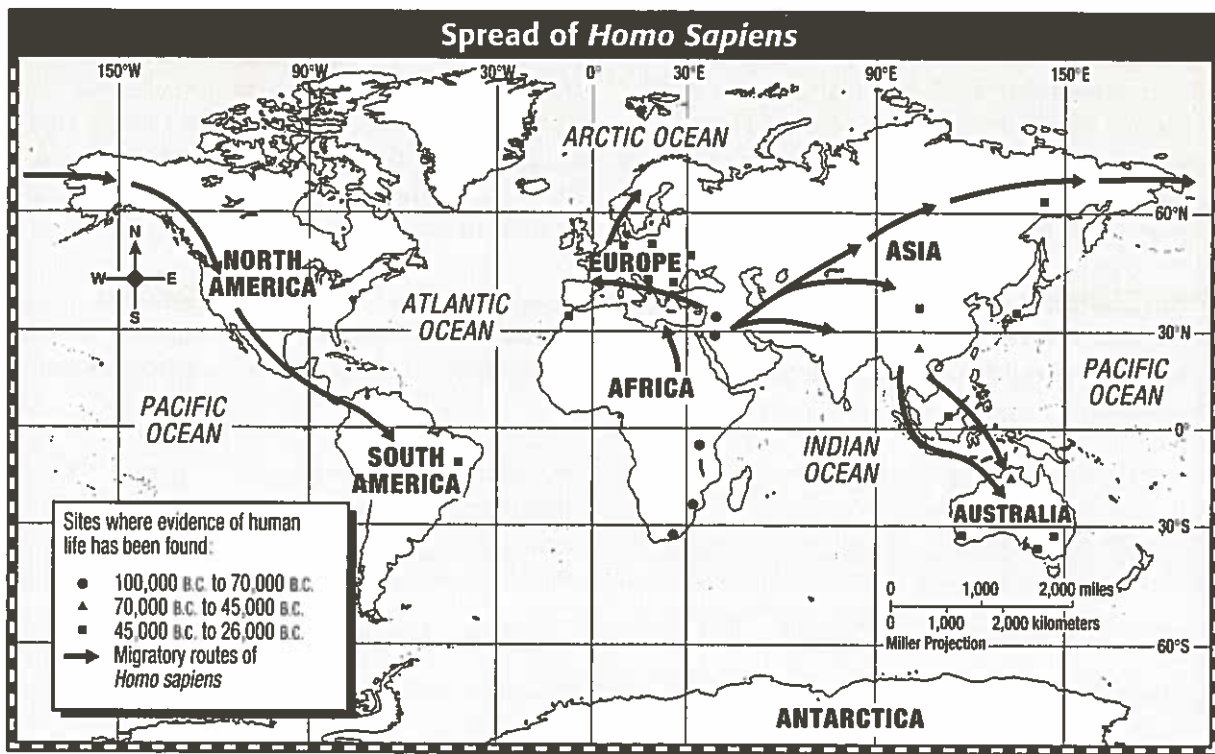
Mapping History Activity 1



Humans Migrate and Produce Food

Earth has experienced several ice ages separated by long periods of warming. The climatic changes caused by the ice ages prompted early humans to migrate to new land areas.

DIRECTIONS: The map below shows the migratory routes of early humans. Use the map to answer the questions and complete the activity that follow. Use a separate sheet of paper.



CHAPTER 1

1. Where has evidence of *Homo sapiens* been found that dates between 100,000 and 70,000 B.C.?
2. Describe the route that *Homo sapiens* took from the Middle East to South America.
3. Since the last ice age, human population has increased tremendously, largely due to the development of agriculture. Agriculture began with the domestication of native plants and animals, including watermelon and rice in West Africa; bananas, cucumbers, and yams in Southeast Asia; cattle and grapes in southern Europe; soybeans in China; camels in Central Asia; avocados, maize, and tomatoes in Central America; and turkeys, sunflowers, and beans in North America. Revise the map above to show where these plants and animals were first domesticated. Create symbols for the plants or animals and add a map key to explain them.

Historical Significance Activity 1



Ancient Roots of Leadership Roles

CHAPTER 1

Hunting and gathering as a way of life has now almost disappeared, but it was the way hominids lived for nearly 99 percent of the time that hominids have lived on Earth. Therefore, the uniqueness of the human species was patterned—and the human personality was formed—not in an industrial or even an agricultural setting, but in a hunting and gathering setting.

Before the rise of *Homo sapiens sapiens*, 80 percent of the food that humans ate was acquired by women, who gathered nuts, beans, roots, honey, eggs, vegetables, and fruits. As the principal food procurers, women's status in the community was

high and their influence considerable. Women shared in the leadership of the band and in ownership of water holes and food-gathering areas.

Male hunters procured 20 percent of the diet in the form of swift-moving, protein-rich game. As the hunters worked together, more sophisticated language developed: "You distract the deer while I spear it." Eventually, male leadership roles developed from the necessity to coordinate several hunting bands. Anthropologist Lionel Tiger suggests that this need for coordination in hunting ultimately led to the predominance of men in modern politics.

DIRECTIONS: Answer the following question in the space provided. Do you think that Tiger's opinion is correct? Write a paragraph that explains why you agree, or suggest another reason for men's predominance in politics. Use facts and examples to support your conclusion.

★ Cooperative Learning Activity 1 ★



Natural Resources

BACKGROUND

Nomads are people who move from place to place. The peoples of the Paleolithic world before 10,000 B.C. were nomadic hunter-gatherers who followed game migrations and seasonal vegetation cycles to gather food to survive. They banded together in small groups that could have been as small as 20 or 30 people. Some scientists believe that interreliance of group members on one another may have led to equality between males and females and that cooperative decision-making was critical for the survival of the group. By working together to make decisions about the possible use of resources, you will learn more about Paleolithic tools and technologies and about how aspects of clan decision-making may have worked.

GROUP DIRECTIONS

1. The hunters of your Paleolithic clan have just downed a mammoth. Use Chapter 1 and any other resources you can access to list all of the possible ways in which you might be able to use the animal to meet the needs of your clan.
2. Brainstorm possible uses for such products derived from the mammoth as the meat, the fur, the tusks and bones, the cartilage and other tissue, and so on.
3. Be specific about how different parts could be used. Be creative but keep in mind the limits of Paleolithic technology and knowledge.
4. Decide as a group which parts of the mammoth would be most important to the clan and why. Create a list of prioritized products arranged in order of the group's sense of their relative importance. Create a "shopping list" of those by-products and uses to present to the class.
5. **Decision Making** As a group, brainstorm the most critical needs of Paleolithic peoples. Appoint a recorder to take notes on the brainstorming. Next, rank the needs in order of importance using whatever criteria the group determines. Record the results.

ORGANIZING THE GROUP

1. **Individual Work** Do research to find out as much as possible about mammoths. Think about what by-products could be derived from a mammoth—food, clothing, tools, and so on. Take notes and collect the ideas for each type of use that you think of. Sketch diagrams as needed to help explain the ideas. Think about how the information might be organized into a group summary presentation.
2. **Group Work/Decision Making** Share your research with your group. Invite comments on and extensions to individuals' ideas. Together, decide what information to prioritize. Which uses best match the prioritized list of the clan's needs that the group created previously? Which uses are most useful and creative?

Cooperative Learning Activity 1 (continued)

- 3. Additional Group Work** Together, create lists of the most important uses of the mammoth and collectively decide how to defend the choices. Create the lists in such a way that the audience can reprioritize the uses according to their own ideas.
- 4. Group Sharing** Use one-page handouts to accompany a presentation of your decisions to the class.
- 5. Extended Group Work/Sharing** Invite the members of the audience to challenge and reprioritize the group's list of items and uses as they think is appropriate. Is clothing critical if food is low? Is gathering tools more or less important than gathering weapons? Discuss the results as a class.

GROUP PROCESS QUESTIONS

- What is the most important thing you learned about Paleolithic society from this activity?
- What part of the project did you enjoy most?
- What problems did you have with this activity?
- How did you solve these problems?
- How was it helpful to work with others?

Quick CHECK

1. Was the goal of the assignment clear at all times?

2. How was this collaborative simulation different from other types of projects?

3. Did you have problems working together? If so, how did you solve them?

4. Were you satisfied with your own participation and your group's work on this project? Why or why not?

HISTORY SIMULATION ACTIVITY 1

Can You Dig It?

Much of what we know about prehistory is the result of the work of archaeologists who unearth and interpret the artifacts left behind by prehistoric people. Both skill and luck are necessary to identify the best archaeological sites and find artifacts. Then the archaeologists must face the difficult task of making inferences about prehistoric life from these remains.

TEACHER MATERIAL

Learning Objective To demonstrate how archaeologists make inferences about prehistoric people from artifacts.

Activity Students simulate discovering an archaeological site and drawing inferences about the people who lived there from descriptions of artifacts found at the site.

Teacher Preparation Make one copy of the handout on the next page for each group. Label ten small brown paper bags from 1 to 10 and pin them to different locations on a wall map of the world. Have more bags than groups of students.

Activity Guidelines

1. Review with students the terms *archaeologist* and *artifact*. Ask students to suggest artifacts that might be found at an archaeological site.
2. Tell students that they will “bury” artifacts at an archaeological site, discover the location of another archaeological site by a guessing game, and then infer information about a culture from the artifacts they “dig.” The bags pinned on the map will simulate possible archaeological sites.
3. Organize the class into groups of four to five and give each group a worksheet. Have groups choose members to do the following tasks: write artifact clues to be “buried,” participate in a guessing game, record the group’s discussion of the artifacts found at the site it “digs,” prepare a report, and give an oral presentation.
4. Each group uses the textbook to select one prehistoric group or early civilization, chooses the types of artifacts to describe, and writes clues for the chosen artifacts. For example, if a group chooses *Australopithecines*, it might describe (1) tool: stone—crudely finished with sharp edges; (2) weapon: part of a wooden club—roughly fashioned from a tree limb.
5. Each group puts its completed artifact clues into the numbered bag on the map that you designate. Be sure that the other groups do not observe which site is used.
6. Pair off the groups to play a guessing game. In a question-and-answer session, each group determines the map location of the other group’s site by framing questions based on where the numbered bags are on the map; for example, “Is the site located south of the Equator?”
7. Have each group study the descriptions of the artifacts it “dug” and brainstorm inferences about the prehistoric group, using the guide on the worksheet to prompt discussion but also thinking of other considerations on their own. They then report to the class.
8. As each group reports, ask it to identify the culture whose artifacts it discovered. Ask the group that placed clues in a bag if the group that “dug” its site correctly identified the culture. You may use the following questions to summarize the activity:
 - What other information, if any, would have helped you make your inferences?
 - On what basis were your inferences made?
 - How did this activity give you a better understanding of the work of archaeologists?

HISTORY SIMULATION ACTIVITY **I**

HANDOUT MATERIAL

Can You Dig It?—Creating an Archaeological Site

Choose a prehistoric group or early civilization from the text. Based on your selection, describe three or more artifacts. The artifacts can be chosen from the types listed below. When your descriptions are completed, cut them out and place them in the bag at the site your teacher designates.

- | | | |
|-----------------------------------|--------------------------------------|--|
| <input type="checkbox"/> tools | <input type="checkbox"/> pottery | <input type="checkbox"/> art objects |
| <input type="checkbox"/> weapons | <input type="checkbox"/> burned wood | <input type="checkbox"/> clay tablets with writing |
| <input type="checkbox"/> clothing | <input type="checkbox"/> jewelry | |

Type of artifact _____ Description _____ _____ _____

Type of artifact _____ Description _____ _____ _____

Type of artifact _____ Description _____ _____ _____

Type of artifact _____ Description _____ _____ _____

Guide for Reporting on an Archaeological Site

To help your group start a discussion, consider the following categories when making inferences based on the artifacts you found at the archaeological site.

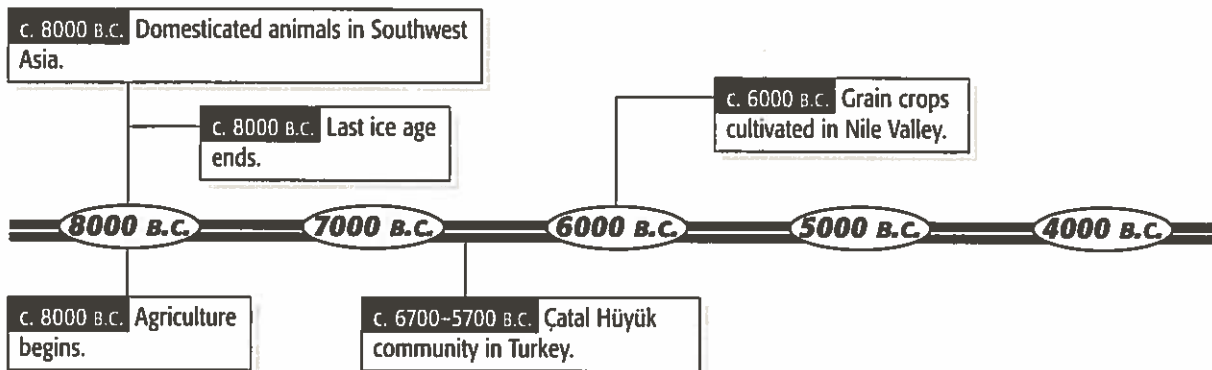
- Probable identity or function of each artifact
- Level of technological achievement
- Level of cultural advancement

Record your conclusions below. Be prepared to explain how you reached them.

Time Line Activity 1

The First Humans

DIRECTIONS: Look at the events on the time line below. Write each event in the box next to the concept to which it relates. Then give a reason why the event is related to the concept. Events may be related to more than one concept.



CHAPTER 1

Developments in Early Human Civilization		
Concept	Event	Reason
Technology		
Domestication		
Civilization		

Linking Past and Present Activity 1

Hunter-Gatherer Societies

CHAPTER 1

THEN The earliest humans left no written records. They did, however, leave such things as stone tools, ornaments, and paintings. Archaeologists and anthropologists study these artifacts to learn about how prehistoric people lived.

Artifacts have yielded some facts about how the earliest humans met their basic needs: They were primarily hunters. Prehistoric paintings found on the walls of caves depict groups of men hunting animals. These caves also contain the bones of animals that had once roamed nearby plains. Some of these bones are charred, indicating that prehistoric people had fire and cooked their food. They also gathered plants. Traces of ancient pollen still saturate cave floors.

Artifacts and fossils point to more complex aspects of prehistoric culture. For example, they indicate that ancient people practiced other arts besides painting. Archaeologists have found primitive flutes in cave dwellings. On the floors of the chambers in which the flutes were found, imprints of human feet form patterns suggesting that prehistoric people danced.

Scholars believe that prehistoric art was created in connection with religious and super-natural rituals. Small stone and ivory figurines of women may have been images of a mother goddess. Prehistoric graves have yielded skeletons surrounded by ornaments and tools. These gravesites suggest that the early peoples believed the dead would need these tools in an afterlife.

NOW Although encroaching civilization threatens their way of life, some hunter-gatherer societies still exist. Anthropologists study these societies to gain insights into the lives of the earliest humans. Because modern hunter-gatherer societies live in rain forests, deserts, and tundra, scholars know that many of their ways are different from those of the prehistoric hunter-gatherers, who lived in less extreme environments.

Nonetheless, modern hunter-gatherers teach us much about early humans. For example, contrary to older beliefs, modern scholars now know that the life of the hunter-gatherer is neither arduous nor deprived. Even groups in such desert areas as the Kalahari in Africa spend only about three hours a day gathering what they need. Surely life was no harder for the groups that hunted and gathered in the temperate zones of Africa, Europe, and Asia.

Scholars know that modern hunter-gatherer groups adjust their numbers to the available food supply by discouraging their members from having babies too early in life. Scholars believe that prehistoric groups may have done this as well.

Noting that cooperation and sharing promote the survival of modern hunter-gatherer groups, anthropologists believe that early humans behaved in much the same way. Moreover, since only a few people make up modern groups, each person performs an important function and is accordingly valued. Most likely, individuals enjoyed similar esteem in prehistoric times.

CRITICAL THINKING

Directions: Answer the following questions on a separate sheet of paper.

- 1. Making inferences:** Why might competition be detrimental to a hunter-gatherer society? Why might such a trait be beneficial in other societies?
- 2. Recognizing cause and effect:** What effect might a "baby boom" have on a hunter-gatherer society?
- 3. Synthesizing information:** Speculate on the different kinds of information that modern hunter-gatherer groups might teach us about the earliest humans. Do research in the library or online to learn what scholars have discovered about prehistoric people from modern hunter-gatherer groups. Write a brief summary of your findings.

People in World History Activity 1

Profile 1

Louis Leakey (1903–1972) and Mary Leakey (1913–1996)

Louis Leakey was born in Kenya in 1903 to English missionary parents. He spoke the Kikuyu language fluently and was inducted into the tribe at 13. He graduated from Cambridge with degrees in anthropology and archaeology in 1926, and later earned a PhD. At that time most paleontologists believed that early man had evolved in Asia, but Leakey insisted on searching in East Africa. In 1931 he and some colleagues set up camp in Olduvai Gorge in Kenya. For several years he divided his time between academic posts in England and fossil-hunting in Africa.

Mary Nicol grew up in France. Her father, a landscape painter, took her to see the beautiful cave paintings and prehistoric sites of southern France, and she became interested in digging and drawing. She began working as an amateur archaeologist and illustrator when she was 17. In 1934 Louis met Mary at a dinner party and asked her to do the illustrations for his next book. He and Mary were married in 1936.

From 1935 to 1959 the two worked at sites around Kenya and Tanzania. In 1948 Mary discovered the perfectly preserved

skull of a Miocene Era primate. In 1959 Mary made a significant discovery: the skull of *Zinjanthropus* ("East Africa man"), dating back 1.8 million years. Though not "the missing link," Louis claimed, it was the first skull found in East Africa of a new group of hominids called Australopithecines.



This find caught the imagination of the public as well as the National Geographic Society, which provided significant funding for the Leakeys' work. From the mid-1960s, Mary Leakey spent most of her time at Olduvai Gorge, while Louis worked on various other projects. In 1960 Mary discovered the remains of *homo habilis* ("handy man"). In 1978 she made what she felt was her most significant find. In the 3.75-million-year-old hardened volcanic ash surface in nearby Laetoli she discovered three sets of footprints stretching for 25 yards. These hominids were walking upright much earlier than almost everyone had supposed.

REVIEWING THE PROFILE

Directions: Answer the following questions on a separate sheet of paper.

1. In the 1920s, where did most anthropologists believe humans had evolved?
2. What were some of Mary Leakey's most famous finds?
3. **CRITICAL THINKING Draw Conclusions.** The theory that evolution was a straight line from one group of hominids to another has been discarded. It's accepted that at every stage of evolution there were some hominid groups that came to an end. Some of the fossils discovered by the Leakeys were of these "dead-end" hominids. How do these discoveries further our understanding of the groups that humans did evolve from?

People in World History Activity 1

Profile 2

Donald Carl Johanson (1943–)

When—and where—did primates become humans? American paleoanthropologist Donald Johanson has spent his life “digging deeper” into this question.

As a high-school student Johanson read about the findings of Mary and Louis Leakey. This focused his interest on paleoanthropology. He attended the University of Chicago, majoring in anthropology. He went on to complete a PhD. His research led him to museums across Europe and Africa and on field expeditions in Ethiopia.

In 1974 Johanson and his associate Tom Gray made a discovery in the Hadar Valley of Ethiopia’s Afar region that electrified the anthropological world: a 3.2-million-year-old female skeleton standing 3 feet, 6 inches tall. “Lucy” offered startling evidence that primitive hominids walked upright 1.5 million years earlier than previously thought. While only 40 percent of Lucy’s skeleton was discovered, examination of the pelvis and leg bones proved that she was “bipedal,” or walked on two feet.

Interest in this find brought substantial financial backing from major foundations.

When he returned to Ethiopia in 1975 Johanson made another spectacular discovery: “the First Family.” On the shores of a dried-up prehistoric lake lay

the remains of thirteen hominids of the same type as Lucy. Johanson named the hominid group *Australopithecus afarensis* (“Southern apes of the Afar region”). Johanson believed that *afarensis* was a primitive ape, an earlier ancestor of the *Homo* family. The major significance of Lucy and her *afarensis* kin is that they disproved the popular theory that a large, more human-like brain developed before bipedalism.

Donald Johanson remains active in the field of paleoanthropology. In 1981 he became director of the Institute for Human Origins, now located at Arizona State University, where he continues his work.

**REVIEWING THE PROFILE**

Directions: Answer the following questions on a separate sheet of paper.

1. In what area of Africa did Johanson focus his excavations?
2. What startling information was gained from examining Lucy?
3. **Critical Thinking Making Generalizations.** We are the single surviving species of hominids. Some feel that our existence is not secure, and that eventually *Homo sapiens* could become extinct as well. What kinds of threats are there to human life? How can these be managed to ensure our survival?



PRIMARY SOURCE READING I

Fossil Hunting in East Africa

Mary and Louis Leakey were scientists who worked in East Africa for many years. There, in a place called Olduvai Gorge, the Leakeys found some of the oldest-known evidence of human beings on earth. Not surprisingly, their son, Richard, also became an anthropologist. Here, Richard explains his work in Kenya's Great Rift Valley, where many fossils are found. Geology and geography have combined to make this area a good place to study prehistory.

Guided Reading *In this selection, read to learn how fossils are formed and where most fossils are found.*

The search for clues

My childhood was spent in various remote areas of East Africa, in Kenya and Tanzania, where my parents were searching for evidence of our ancestors. For many months they searched the fossil sites on the islands and shores of Lake Victoria. At other times I remember chasing sheets of cellophane blowing away in the wind as my mother laboriously traced the art of our ancestors in rock shelters in Tanzania. But perhaps the most exciting times of all were at Olduvai Gorge on the Serengeti Plains where wild animals were a natural part of our everyday life.

Since then I have continued searching for evidence of the past in my own career, and I have experienced for myself the thrill of finding a complete skull of one of our ancestors, two million years old.

The cracking of Africa

I was very fortunate to be born in Kenya, for Kenya has running through it the East African Rift Valley. This exceptional geographic feature has led to the formation of numerous fossil sites during the last twenty million years, the period of time when humans evolved from primitive ape-like animals into the intelligent creatures that we are today.

The East African Rift Valley marks an area of weakness in the earth's surface, that runs through Africa, from the Red Sea in the north to Mozambique in the south. Flying over the Valley in an aeroplane one sees the sides rising, sometimes as much as 2,000 metres (6,600 feet) above its floor. In places the Valley is as much as 80 kilometres (50 miles) wide; it is lined with huge

cliffs and escarpments, and dotted with volcanoes surrounded by vast black lava flows.

Twenty million years ago, however, this huge rift was only a shallow depression marked by lakes and volcanoes. As the depression gradually deepened, cracks began to form in the earth's surface, creating the cliffs and escarpments we see today.

While these massive movements were taking place, other events were happening which were important for the preservation of clues about our past. As the lakes formed in the Rift Valley depression, rivers began to wash away soil and rocks from the newly formed hills on either side. This soil was carried down the hills by the rivers and later dumped on flood plains and deltas, and in the lakes themselves. In these places sediments of sand, silt and clay gradually built up, and any bones of dead animals lying in these areas became buried and preserved as fossils. Among the animals which were preserved in this way were some of our ancestors.

These geological processes have continued in the Rift Valley over the past twenty million years, so that many layers of sediment and fossilized bones have been built up. In some places these are hundreds of metres thick. Often the layers of sediment and the fossilized bones have remained buried, but in some areas movements of the earth's crust have continued and caused them to be uplifted. When this happens they in their turn become eroded by rivers, which cut through the layers of rock like a cake and expose the fossilized bones. It is in these places that, with careful searching, we can find many clues from the distant past.



PRIMARY SOURCE READING I

CHAPTER 1

How to get preserved as a fossil

Unfortunately the chances of any animal becoming a fossil are not very great, and the chances of a fossil then being discovered many thousands of years later are even less. It is not surprising that of all the millions of animals that have lived in the past, we actually have fossils of only a very few.

There are several ways in which animals and plants may become fossilized. First, it is essential that the remains are buried. Dead animals and plants are quickly destroyed if they remain exposed to the air. Plants rot, while scavengers, such as hyaenas, eat the flesh and bones of animals. Hyaenas love to crunch the bones, while beetles, flies and grubs consume all edible parts that are left. Finally, the few remaining bones soon disintegrate in the hot sun and pouring rain. If buried in suitable conditions, however, animal and plant remains will be preserved. The same chemicals which change sand and silt into hard rock will also enter the animal or plant remains and make them hard too. When this

happens we say that they have become fossilized. Usually only the bones of an animal and the toughest part of a plant are preserved.

The soft body parts of an animal or the fine fibres of a leaf may occasionally become fossilized, but they must be buried very quickly for this to happen. It may sometimes occur with river and lake sediments but is much more likely to happen with volcanic ash. One site near Lake Victoria, where my parents worked, contained many thousands of beautifully preserved insects, spiders, seeds, twigs, roots and leaves. A nearby volcano must have erupted very suddenly, burying everything in a layer of ash. The insects had no time to escape before they were smothered.

As we have seen, river and lake sediments preserve a great many bones, but caves are another site where fossils are easily formed and luckily our ancestors left many clues in caves which make convenient shelters and homes. Things that people brought in as food or tools were left on the cave floor, and mud, sand, and other debris washed in by rivers and rain buried them.

INTERPRETING THE READING

Directions Use the information from the reading to answer the following questions. If necessary, use a separate sheet of paper.

1. How does a plant or animal become fossilized?

2. Where are some good places to find fossils?

3. What generally happens to the remains of a plant or animal when it dies? How does this help explain which parts of plants or animals usually form fossils?

Critical Thinking

4. **Making Inferences** Is fossil hunting a quick or slow process? How do you know?

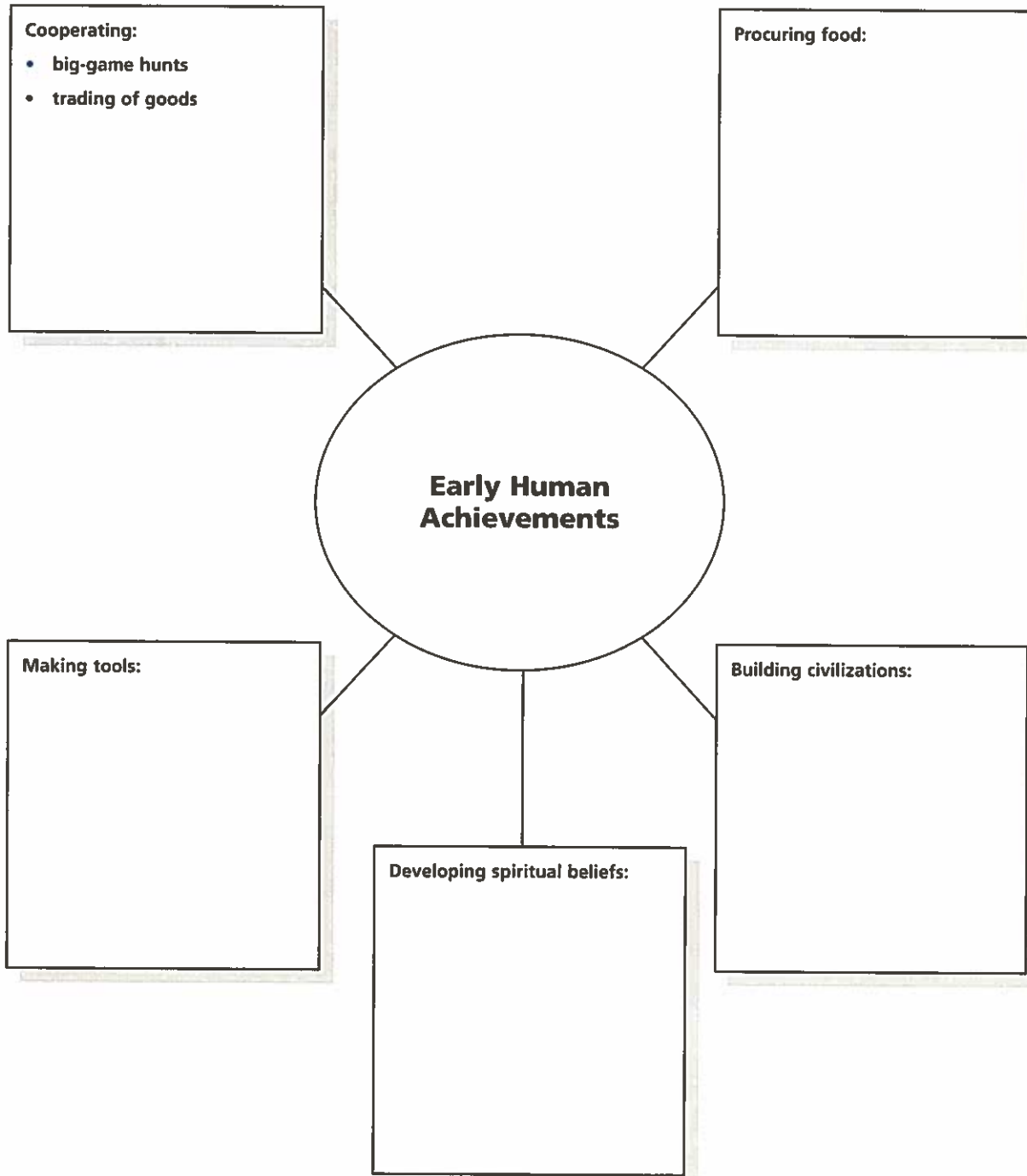


Reteaching Activity 1

The First Humans

Early humans found a variety of ways to survive in a sometimes very hostile environment. They accomplished many feats upon which modern civilization was built.

DIRECTIONS: Complete the word web below, filling in as many examples as possible of each achievement shown. Some examples have been provided for you.



★ Enrichment Activity 1



The Social Impact of Agriculture

Profound changes resulted from the shift from hunting and gathering to farming.

Several of these changes and their social consequences are given in the table below.

Consequences of Shift to Agriculture	
Change	Social Consequence
People lived in one place and no longer had to carry all their possessions.	People who could afford material goods began to accumulate them.
Farmers could grow more food than they needed to feed their families.	Farmers could barter surplus food for textiles, tools, and pottery made by artisans.
Land and water became valuable economic resources.	Leaders with armies arose to conquer large land areas. Rulers forced people who had no power to do hard jobs such as producing food and constructing irrigation systems.
Male warriors competed for land, water, and power.	Women lost the power they had shared in hunter-gatherer societies to male warriors who could protect them and their children.

DIRECTIONS: Assume that you were a witness to one of the changes shown above, and you experienced its social consequences. Write a journal entry describing your role in the society and your reaction to the change.

World Art and Music Activity 1



Cave Paintings

Cave paintings have been found in such diverse places as southern France, Italy, northern Spain, and, most recently, northern Brazil. These prehistoric paintings have been dated from approximately 15,000 B.C. to 8000 B.C. This makes them thousands of years older than Egyptian paintings, which date from around 2500 B.C.

DIRECTIONS: Read the passage below about these early works of art. Then answer the questions in the space provided.



CHAPTER 1

Cave painting of horses (c. 15,000 B.C.), Caves of Lascaux, Dordogne

The Paleolithic Era, also called the Old Stone Age, lasted from about 2,500,000 B.C. to 10,000 B.C. The people who lived during this time period were nomadic hunter-gatherers. Instead of farming the land, they subsisted on whatever plants they found growing nearby. However, they did hunt—horses,

bison, fox, bear, and even the now-extinct woolly mammoth and woolly rhinoceros. The hunters used their prey’s meat for food, the skin for clothing, and the bones and tusks for tools. The intestines were used for “thread,” with which they sewed using a needle. Additionally, bones and fur were fashioned

(continued)

World Art and Music Activity 1



CHAPTER 1

into some of the first paintbrushes. Paleolithic people did not construct houses or permanent settlements. Rather, they lived in caves, and they moved on when they had used up the local resources.

All this had been known for centuries. But it was not until 1879 that the caves in Altamira, Spain, with their astonishing artwork, were discovered. Then in 1941, caves in Lascaux, France, were discovered accidentally by two boys playing with their dog. Bison galloped across the walls! Deer crouched! Wild boar leapt to and fro! All of these animals were painted in some form of motion. They were colorful and were rendered so accurately that their images were recognizable even after thousands of years. Their sizes ranged from 5 feet to 6.5 feet long (1.5 to 2 meters).

The artists used charcoal from their campfires as paint. They ground up lumps of clay and mixed it with blood from animals they had hunted or with

juice from fruits and berries to make different colors. Using stone tools, they scratched outlines into the cave walls. Then they colored them in with brushes and fur or moss sponges, using different hues to create a three-dimensional effect. Finally, they added details such as fur to their paintings.

Although historians know how the paintings were produced, they do not know why the cave artists painted. Life was difficult, dangerous, and exhausting, and there was little if any "leisure time" for hobbies or crafts. Perhaps the pictures were a form of magic to capture the animals' strength and spirit, making them easier to hunt. Maybe the paintings were part of a ceremony to ensure a large supply of game. Perhaps these murals told a story long before people had a written language. Or maybe these prehistoric people were not so different from humans today, and they just wanted to decorate their homes. We probably will never know for sure.

Reviewing the Selection

1. What are the most important caves and where were they discovered?

2. What are the characteristics of cave paintings?

Critical Thinking

3. **Making Inferences** Cave paintings rarely include pictures of people or foliage. Why do you think Paleolithic people instead stressed animals in their art?

4. **Making Generalizations** Because the art inside remained undiscovered for thousands of years, these caves could be considered a sort of "time capsule." Imagine that you can draw something in a cave today that will be found thousands of years in the future. Consider what objects you would include that are important to you and those around you. What would you draw? Why?

Glencoe

WORLD HISTORY



Chapter 1 Section Resources

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 **Guided Reading Activity 1-1**

Early Humans

DIRECTIONS: As you read Section 1, complete the following statements in the space provided.

1. Archaeology is the study of past societies through an analysis of _____

2. Anthropology is the study of _____

3. One of the most important and difficult jobs of both archaeologists and anthropologists is _____
4. Radiocarbon dating is only accurate for objects no more than _____

5. Scientists like Donald Johanson say the first humanlike creatures flourished in _____

6. *Homo sapiens* means _____

7. One of the basic distinguishing features of human beings is _____

8. The Paleolithic Age is used to designate the early period of history in which humans used _____
9. Paleolithic people moved from place to place because _____

10. Perhaps most important to early humans' ability to adapt to new, harsh, and colder climates was _____

11. During the Ice Age, sheets of thick ice covered large parts of _____

12. Prehistoric people could paint with the colors red, yellow, and black by crushing and combining _____



Guided Reading Activity 1-2

The Neolithic Revolution and the Rise of Civilization

DIRECTIONS: As you read Section 2, answer the questions on the lines provided.

1. What does the Greek word *Neolithic* mean?

2. Describe the revolution in human development that took place in the Neolithic Age.

3. Name the crops that were grown and the animals that were domesticated in Southwest Asia during this time.

4. In what areas did the first Neolithic farming villages appear?

5. When farming produced food surpluses in communities, this freed people to do what activities other than growing crops?

6. Describe the process by which the durable metal bronze was first created.

7. By the beginning of the Bronze Age, large numbers of people were concentrated in what geographical locations?

8. List the six basic characteristics of civilizations.

9. What do governments do?

10. Rulers, priests, merchants, and artisans used writing for a very important purpose. What was it?

11. Why were temples and pyramids built in ancient cities?

