

Informational
Article

HISTORY DETECTIVES

by Sandy McKay



Mc
Graw
Hill

PAIRED
READ

Uncovering the Past

STRATEGIES & SKILLS

Comprehension

Strategy: Summarize

Skill: Sequence

Vocabulary Strategy

Proverbs and Adages

Vocabulary

archaeology, document,
eras, evidence, expedition,
permanent, tremendous,
uncover

Content Standards

Social Studies

History

Word Count: 995**

Photography Credit: The McGraw Hill Companies, Inc., Richard Hutchings, Photographer, (inset) Garry Black/Masterfile

**The total word count is based on words in the running text and headings only. Numerals and words in captions, labels, diagrams, charts, and sidebars are not included.



Essential Question

How can learning about the past help you understand the present?

HISTORY DETECTIVES

by Sandy McKay

Chapter 1

Exploring the Past..... 2

Chapter 2

Excavating a Site 8

Chapter 3

Learning from the Past 12

Respond to Reading..... 15

PAIRED READ

Uncovering the Past.....16

Glossary/Index 19

Focus on Social Studies 20

EXPLORING THE PAST

What did people wear 1,000 years ago? What did they eat? Archaeologists are people who try to answer these questions. Archaeology is the study of how people lived in the past.

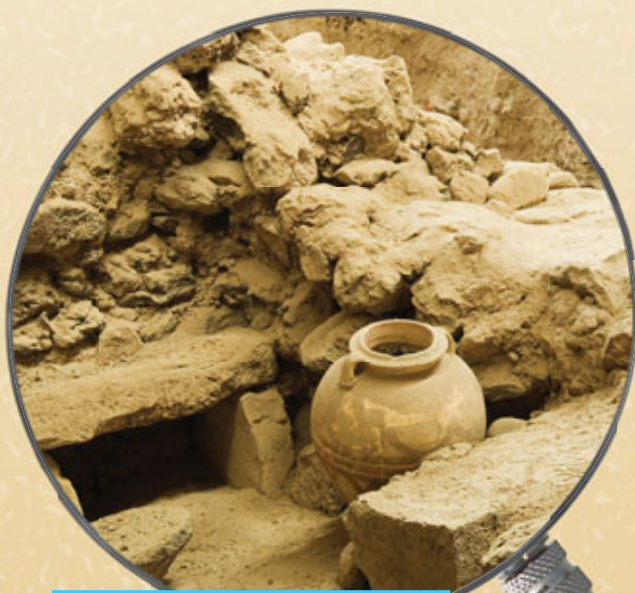
Archaeologists look at objects from the past. They might look at the remains of houses or other buildings. They might look at old tools or pottery. All of these objects are pieces of evidence. Archaeologists are detectives who try to figure out what the evidence means.

Archaeologists learn about the lives of people in the past.



Ancient canoes found near Florida helped archaeologists learn about how Native Americans lived thousands of years ago. The canoes showed how people traveled. The archaeologists could find out what wood and tools were used.

Small objects provide evidence, too. Hooks show that ancient people fished for food. Tools show that they grew crops. Animal bones and fruit pits can tell us what they ate.



Small pieces of evidence can teach us about ancient people.

Where Do Archaeologists Find the Past?

An archaeological site is a place where people were in the past. Some sites are easy to find. The pyramids in Egypt were the tombs of ancient rulers. The pyramids were built more than 4,000 years ago.

Archaeologists learned about life in ancient Egypt from the tombs. The jewelry and statues in the tombs showed how kings and queens lived. Paintings on the walls showed people farming and working.

Archaeologists are still making discoveries about the pyramids.



Some archaeological sites are hard to find. Most buildings weren't built to last for thousands of years. Buildings crumble. Cloth breaks down. Objects such as clay pots, shells, and bones take longer to decay.

It can take a lot of work to uncover clues from the past. Archaeologists have to find the places where people once lived.

PRESERVED IN ICE

Objects can last longer in deserts, swamps, and cold places. In 1991, a hiker found the remains of a man in the mountains in Italy. His clothing was preserved. His tools were found nearby. The remains were more than 5,000 years old!


Archaeologists made a model of the "ice man" and named him Otzi.



Searching for Sites

People have found many sites by accident. In 1931, an archaeologist was looking for a Native American burial site near Gainesville, Florida. He found **fossils** of a three-toed horse instead. The fossils were around 18 million years old. Archaeologists have since found fossils from many types of extinct animals at this site.

People also find underwater sites and shipwrecks when they are fishing or diving. Ancient sites are found when land is dug up for new highways or buildings.



Building work stops while archaeologists dig up the area.

Archaeologists use modern tools to search for sites. Airplanes use **radar** and cameras to look for unusual features on Earth. The features might show that there was once a settlement there.



Archaeologists walk carefully as they hunt for treasures from the past.

If there is evidence of a settlement, archaeologists carefully look at the ground. They use radar and metal detectors to help them. They look for small pieces of pottery, old bottles, and bones.

STOP AND CHECK

How do archaeologists learn about the lives of ancient people?

EXCAVATING A SITE

When scientists find a site, they begin to **excavate**, or dig up, the area. They make a careful plan first. Sometimes they use large machines to take away dirt that doesn't contain any evidence. Then they use trowels to uncover objects that are buried. They take tremendous care because they don't want to damage anything.

Archaeologists make a grid at a dig site so they can keep track of where objects are found.



ONE SQUARE AT A TIME

In 1983, archaeologists excavated an Occaneechi Native American village in North Carolina. These are the steps they had to take.

1. Create a grid of squares over the site. Number each square. Draw a copy of the grid.
2. Take away the top layer of dirt from each square. Use a screen to sift the dirt and check for small items.
3. Scrape the lower layers of dirt with a trowel to uncover any other objects.
4. Photograph the objects. Record where the objects were found at the site.
5. Put the dirt back when the dig is finished.



After a site has been excavated, archaeologists document everything they find. Then they study what they found.

First, they want to find out how old the objects are. An object from deeper in the ground may be older than an object found near the surface.



Archaeologists use screens to find tiny artifacts such as these glass beads.

HOW OLD IS IT?

Radiocarbon dating is used to figure out an object's age. It can be used on bone, wood, or anything else that was part of a living thing.

Radiocarbon forms in the air as carbon dioxide. Plants absorb carbon dioxide. Animals absorb the carbon when they eat the plants. Living things stop absorbing carbon when they die. Scientists can measure how much the carbon has decayed to figure out an object's age.

Archaeologists at the Occaneechi Native American village found many objects. There were pots, stone tools, and the remains of animals. They figured out that the artifacts were between 300 and 1,000 years old. They could tell which objects were older and which were from more recent times. They could see how the village had changed over time.

AMERICA'S FIRST ARCHAEOLOGIST

Thomas Jefferson was president of the United States from 1801 to 1809. He is also famous for his research into fossils and Native American burial mounds.

Jefferson grew up in Virginia. There was a large mound of earth near his home in Virginia. Jefferson excavated the mound. He found layers of bones. It was an ancient Native American burial site.



STOP AND CHECK

How do archaeologists excavate a site?

LEARNING FROM THE PAST

Archaeology tells us how some of our **traditions** began. Archaeologists have found clues that people began farming around 10,000 years ago.

Archaeology has also helped us learn when dead people began to be buried. Sites with graves have been found in Europe and Asia. These sites are about 40,000 years old.

This burial mound is evidence of how traditions, such as burials, have changed.



For archaeologists every picture tells a story. Paintings tell them about past eras. Many cave paintings show the animals of that time and how people hunted them. People can compare paintings from different places to see how they are the same and how they are different. They can compare art from different eras.

Studying the past can also help us solve problems today. Archaeologists know that the ancient people of Peru grew crops on raised fields. This protected the crops from floods. Farmers in the Huata community in Peru now grow their crops in the same way.

Archaeologists showed people in Huata how their ancestors farmed in raised fields.



The Future of Archaeology

Archaeologists use new technology and find better ways to do their work. Today the Internet helps people quickly learn about discoveries.

However, archaeological sites don't grow on trees. They can have permanent damage if they aren't treated with care.

Many of the jigsaw pieces of our history are still hidden. We need to protect ancient objects so that we can continue to learn from them.

STOP AND CHECK

What can archaeologists learn from the past?

Information about archaeological discoveries can be found online.



Respond to Reading

Summarize

Summarize the ways that learning about the past helps us learn about the present in *History Detectives*.

Use the graphic organizer to help you.

```
graph TD; A[ ] --> B[ ]; B --> C[ ]; C --> D[ ]
```

Text Evidence

1. What features tell you this is an informational article? **GENRE**
2. Use the information on page 9 to explain the steps archaeologists follow at a site during an excavation. **SEQUENCE**
3. What does the adage “every picture tells a story” on page 13 mean? **PROVERBS AND ADAGES**
4. Write about the steps archaeologists take to find new sites. What do they do when they find a site? Use details from the text in your answer. **WRITE ABOUT READING**

Compare Texts

Read about the experiences of volunteers who have worked on archaeological sites.

Uncovering the PAST

Imagine going on an archaeological site. Many people help on excavation sites these days. They volunteer for the Passport in Time (PIT) program.

PIT volunteers work with archaeologists across the United States. The volunteers have helped on many different projects. They helped excavate an ancient village in Minnesota. They helped excavate a gold-mining site in Idaho.

Kit Murray was eight years old when he became a PIT volunteer. He and his mom went to Idaho to help excavate gold-mining sites. The sites were more than 100 years old.

Every day Kit and his mom hiked to the site with the other volunteers. They made maps and searched for objects. The volunteers found pieces of pottery and glass, and cans. They wrote down what they found. The volunteers were shown how to do flintknapping. This is the way the ancient people made tools.

Flintknappers make stone tools.



Linda Ruys was a PIT volunteer at Allegheny National Forest, Pennsylvania. She helped excavate a Native American village.

Ruys helped uncover an ancient stone tool called a core. She found the expedition very exciting. The site became a very special place for her.



Make Connections

What did Linda Ruys learn from the excavation she worked on? **ESSENTIAL QUESTION**

How are the excavation methods of archaeologists and PIT volunteers similar or different?

TEXT TO TEXT

Glossary

excavate (*EK-skuh-vayt*) dig up (**page 8**)

fossils (*FAH-suhls*) the remains of animals and plants that were buried thousands of years ago (**page 6**)

radar (*RAY-dahr*) a system that uses radio waves to find artifacts (**page 7**)

traditions (*truh-DI-shuhns*) ways of doing things that are passed from generation to generation (**page 12**)

Index

evidence, 2, 3, 7, 8

excavation, 8–11, 16–18

Jefferson, Thomas, 11

Native Americans, 3, 6, 9,
11, 18

Occaneechi village, 9, 11

pyramids, 4

Focus on Social Studies

Purpose To understand the connections between the past and the present

Procedure

- Step 1** In a group, choose an everyday object that many people use, such as a cup or a jacket.
.....
- Step 2** Do research to find out what people would have used in the past instead of that object.
.....
- Step 3** Imagine what people might use in the future instead of your chosen object. What would it look like? How would it work?
.....
- Step 4** Make a time line to show how your object changes from the past, to the present day, and into the future.

Literature Circles

Nonfiction

Thinkmark

The Topic

What is *History Detectives* mostly about?

Text Structure

How does the author organize information in *History Detectives*?

Vocabulary

What new words did you learn in the text?
What helped you understand their meanings?

Conclusions

What conclusions can you draw about the kinds of things we can learn from the past? How can this help us understand the future?

Make Connections

How is *History Detectives* like other informational articles you have read? What is similar? What is different?