

Lesson 2: Archaeology

☐ Getting Started

Before you get into learning about specific ancient civilizations, it's important to learn about how we know what we know about them. Researchers use many different tools and resources to learn about the past. If you want to know about the recent past — for example, if you want to know about your parents' lives when they were children — you could ask people who remember past events to tell you about them. If you want to know about more distant past events, such as what life was like during the Civil War, you could rely on historical sources like newspapers from the 1860s, photographs of soldiers, or diaries and letters of Americans during the war years.

But what if you want to know about people who lived in the very distant past, hundreds or even thousands of years ago? You may not be able to rely on written records (although you'd probably want to explore what written records are available since valuable written records of the ancient past do still exist!). Instead, you may also need to use the tools and strategies of archaeologists to untangle the stories of people who lived very long ago through the careful study of the artifacts that they left behind. In this lesson, you'll learn more about the work of archaeologists and will have the chance to explore archaeology in a hands-on way.

Stuff You Need

- *Ancient Civilizations* by Joseph Fullman (DK Eyewitness)
- 8 objects for holding down string markers* (Activity 1 - Option 1)
- clipboard* (Activity 1 - Option 1)
- digging tools such as sandbox shovels and sifters, a garden trowel, and a plastic spoon* (Activity 1 - Option 1)
- found or created objects to serve as artifacts* (Activity 1 - Option 1)
- paintbrush or old toothbrush* (Activity 1 - Option 1)
- ruler* (Activity 1 - Option 1)
- sandbox or 3'x3' section of land* (Activity 1 - Option 1)
- string or yarn* (Activity 1 - Option 1)

Ideas to Think About

- How can modern people learn about the cultures of ancient civilizations?
- In what ways can the environment influence researchers' work?

Things to Know

- **Archaeology** is the study of human history through the careful analysis of physical objects.

- An **artifact** is an object made by a person. Archaeologists analyze artifacts to learn more about the people in the past who made them.
- Archaeologists must work carefully to avoid damaging fragile artifacts. They must also keep careful records of where objects are found within a dig site since the location of artifacts can provide important clues about their age, their uses, and their significance.
- Archaeologists must also plan to protect themselves, their equipment, and the artifacts that they uncover from the hazards of the local environment such as sand, dirt, water, animals, and weather conditions.

☐ Reading and Questions

Read pages 8 to 9 of *Ancient Civilizations*. This reading will provide you with a brief overview of the artifacts and methods that researchers use to learn about the distant past. Then answer the following questions.

1. Based on what you read, how would you describe the work of archaeologists?

2. What kinds of objects last long enough for archaeologists to study them?

3. How has modern technology influenced archaeology?

Activities

☐ Activity 1: You Are the Archaeologist

In this activity, you will have the chance to become an archaeologist for the day, searching for **artifacts** and recording and analyzing what you find. There are two options for this activity. Both options use the "Analyzing Artifacts" pages for recording details about the artifacts you locate. Ask a parent which option you should complete.

Option 1: Digging Up Evidence

For this activity, you will have the chance to excavate a model of an archaeological dig site, map the location of artifacts that you find, and then analyze the artifacts. When you arrive at the site of your dig, you will notice that the site has been marked off for you in a square. You will need to do the following:

1. Create a grid that covers the dig site, marking the square site's four sides and dividing it into nine sections like a tic-tac-toe board. An easy way to do this is to place a 3-foot length of string on each side of the square dig site, weighting down the ends of the string at the corners with a beanbag or other weight. Then use two strings running vertically and two running horizontally to divide the square into a grid like a tic-tac-toe board, again using beanbags or other weights to hold down the ends of the strings.
2. Select tools for your dig. You may find it helpful to use sandbox shovels, sandbox sifters, trowels, or other digging tools as well as smaller tools like plastic spoons, paintbrushes, or old toothbrushes for more delicate work. Remember that some artifacts may be fragile, so work with care.
3. Look at the "Dig Site Map" (Option 1) activity page and compare it to the grid you have laid out at your dig site. You may find it helpful to place your map on a clipboard or other hard, portable surface to allow you to write comfortably during your dig. Draw any details on the map page that will help you remember which corner of your dig site represents square A1. You might want to draw landmarks that are near your site (for example, your house, a picnic table, or a prominent tree) to help you remember later which square of the dig is represented by each square on the map. Fill in the information at the top of the page about today's date, the weather conditions, and a brief description of your dig site.

4. Begin your dig, working one square at a time. Use your tools to carefully explore each square. If you find an artifact, stop your dig and use the "Dig Site Map" page to record where you found each item. You may wish to use a ruler to indicate the depth at which you found each item -- remember that some objects may be buried quite shallowly while others may be in deeper layers of the site.
5. After you have found an artifact and recorded its location on your map, move it to a safe space to the side of your dig site -- a towel placed on a nearby table or a cardboard box might work well.
6. When you believe that you have found all of the objects in the first square, move on to the next square and repeat the process until you have explored each of the nine squares.
7. Using a paintbrush or other gentle tools, clean any remaining soil or sand off of your artifacts. Use the "Analyzing Artifacts" activity pages to record your analysis of three artifacts that are of particular interest to you.
8. Ask the person who set up the dig if you found all of the artifacts that were hidden in the dig site. If you missed any, ask the person who set up the dig to help you find the missing piece(s).
9. When you have finished your dig activity, remove your string markers and weights, and use your tools to return any displaced sand or soil to the dig site. Leave the site looking as it did when you found it.

Option 2: An Online Dig

In this activity, you will use the Internet to explore a simulated or actual archaeological dig. Ask a parent to help you get started with this activity. As you work through the dig that your parent directs you to, choose three artifacts that you find especially interesting and fill in information about them on the "Analyzing Artifacts" activity pages. Depending on the website that you are using, you may have access to historical information that will help you draw conclusions about the artifacts that you choose.

Wrapping Up

As you found, archaeology requires careful planning, attention to detail, meticulous record-keeping, and often a great deal of patience. Because of the hard work of archaeologists, we now know a great deal about people who lived in the distant past. In the rest of this unit, you'll be exploring the lives of people who lived in ancient Mesopotamia and Egypt. As you learn more about their lives, think about the research that was required to figure out what we now know about these people and their cultures.

Life Application

Archaeological expeditions have been the subject of many documentaries that your family might enjoy. Your public library or Internet movie rental service may also have documentary films related to archaeology from PBS, the BBC, the Discovery Channel, the History Channel, or other sources. Ask a librarian for a recommendation, or work with a parent to choose a video about archaeology that your family can enjoy together. You may even be able to find some documentaries focused on Mesopotamia and Egypt! As you watch, be sure to notice the tools and techniques that archaeologists use and the kinds of questions that they ask in conducting their research.

Here are some videos to get you started.



Digging Archaeology

www.beyondthepage.com/link/11806/

In this episode of the PBS Kids program Sci Girls, two girls have the chance to work with an archaeologist and learn about archaeology firsthand.



What Is Archeology?

www.beyondthepage.com/link/8410/

Instructions: Choose three interesting artifacts that you found in your dig. In the space below, record information about the objects. Then answer the question at the end of the activity page.

1.What is the artifact? _____

3. Write a detailed description of the artifact. _____

4. Where did you find it? _____

5.What do you think it is made of?_____

6. How old do you think it is? _____

7. How do you think it might have been used? _____

1.What is the artifact?_____

2. Draw a picture of it.

3. Write a detailed description of the artifact. _____

4. Where did you find it? _____

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- 3.Write a detailed description of the artifact._____

- 4.Where did you find it? _____
- 5.What do you think it is made of?_____
- 6.How old do you think it is? _____
- 7.How do you think it might have been used? _____

[illegible]

Dig Site Map

Instructions: Fill in the required information about the conditions at your dig site today, and then use the map below to mark the location of any artifacts that you find. When you find your first artifact, write a 1 in the location on the map that represents where that artifact was located and, in parentheses, add the depth at which you found the artifact. Below, identify each numbered artifact with a brief description.

Date: _____ **Weather conditions:** _____

Physical description of the dig site: _____

	A	B	C
1			
2			
3			



Artifacts Found

(You may find fewer than seven artifacts at your dig site)

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

Lesson 2: Archaeology

Getting Started

✿ Ideas to Think About

- How can modern people learn about the cultures of ancient civilizations?
- In what ways can the environment influence researchers' work?



Things to Know

- **Archaeology** is the study of human history through the careful analysis of physical objects.
- An **artifact** is an object made by a person. Archaeologists analyze artifacts to learn more about the people in the past who made them.
- Archaeologists must work carefully to avoid damaging fragile artifacts. They must also keep careful records of where objects are found within a dig site since the location of artifacts can provide important clues about their age, their uses, and their significance.
- Archaeologists must also plan to protect themselves, their equipment, and the artifacts that they uncover from the hazards of the local environment such as sand, dirt, water, animals, and weather conditions.

⦿ Skills

- Identify, evaluate, and use historians' methods and tools. (SS)
- Relate archaeology to the study of history. (SS)
- Describe what is known through archaeological studies of the early physical and cultural development of humankind. (SS)

Introducing the Lesson

In this lesson, your child will learn more about the process of archaeology and participate in a dig of her own, either in your yard or online. Your child will also become familiar with the timeline that will be used throughout the 11-13 level social studies units. As an extension, your family may choose to watch a video documentary of your choosing focused on archaeology. If your community has a museum nearby that features artifacts or information about local archaeology, a visit to that museum would provide an excellent field trip to accompany this lesson.

Reading and Questions

1. Based on what you read, how would you describe the work of archaeologists?

Your child's answers will vary, but she should understand that archaeologists study the lives of people in the past by examining the physical structures and objects that those people left behind. She may extend this definition to include some of the research methods described in the book (exploration of written sources, underwater archaeology, etc.).

2. What kinds of objects last long enough for archaeologists to study them?

Hard objects such as metal, pottery, and stone.

3. How has modern technology influenced archaeology?

Your child may mention the use of radiocarbon dating, CT scanners, and/or x-rays. If she has a special interest in archaeology and/or technology, she may know about other technologies such as sonar, aerial photography, magnetic sensors (geophysical survey), DNA testing, GPS or computer modeling that may be useful to archaeologists as well.

Activities

Activity 1: You Are the Archaeologist

In this activity, your child will apply what she has learned about archaeology to a practice dig. There are two options for this activity. Both options will reinforce knowledge about the process of archaeology and skills in recording data and analyzing information.

Option 1 will be a real-life dig in which your child will unearth "artifacts" that have been buried ahead of time, document the dig site using a mapping page, and analyze the artifacts that she finds in an effort to draw some conclusions about the people who might have left them there. This option will be a good choice if someone else is available to prepare the dig site for the child. A parent could do this (perhaps with the help of siblings) the day before or earlier in the day, or your child could complete the activity with a homeschool group or another family that is completing the same unit. This very hands-on activity will be a good choice for kinesthetic learners and will also reinforce mapping skills, attention to detail, and the analysis of historical evidence. For children who enjoy learning collaboratively, it will also be engaging to complete the activity with other children.

Option 2 will allow your child to complete an electronic version of an archaeological dig using an interactive website. She will complete the same artifact analysis page as for Option 1, using artifacts discovered on the digital dig. This option may be a good choice for students who are especially interested in technology, and it will be a quicker option to complete if your family is short on time or if no one is available to prepare a dig site for your child. Depending on the website you use for this activity, it may provide a more in-depth and challenging exposure to detailed information about archaeology than the hands-on dig.

Option 1: Digging Up Evidence

For this activity, your child will unearth artifacts from a prepared dig site, carefully recording the locations of found artifacts at the site and then analyzing three of the artifacts in greater detail. Someone will need to prepare the dig site for your child. A parent can do this before the dig, perhaps with the help of siblings, or the dig site could be prepared by other homeschool students if you choose to do a dig activity with another family using Moving Beyond the Page or a homeschool co-op group.

If you are planning to prepare the dig for your child (with or without the help of other family members), follow these steps:

1. Identify a good site for your child's dig. The site should be a 3' x 3' square with loose soil or sand that is safe for digging to a depth of 4-5 inches. Some options might include a sandbox, a currently unused section of a garden bed (perhaps a spot that you were planning to replant soon), or a section of your yard where digging would be relatively easy and acceptable. If you don't have a convenient spot for digging, you could use a square storage bin filled to a depth of 3-4 inches with play sand or a large square container for plants filled with new potting soil. If you have younger children with a sand and water table or sensory table/box filled with sand, rice or other similar substances, this table/box would work nicely, too.

2. Prepare the dig site. Mark out a 3' square using string, lines marked in the dirt with a stick, or some other method. All artifacts should be buried within this square.
3. Choose five to seven artifacts to bury at your child's dig site. Be sure that any items you choose to hide will be ones that either will not be damaged by being buried and dug up or are items that are disposable. Try to think of items that might tell some sort of a story about the people who left them behind — for example, items that might have fallen out of a camper's backpack (granola bar wrappers, a map printed from the website of a local park, a bandana, etc.) or items that might have been lost at a birthday party (plastic forks, birthday candles, small "goodie bag" toys, an invitation, etc.). You could also create mock historical artifacts if you wish, such as fake parchment scrolls or decorated clay pots. Or you could hide items from one particular person in your family or homeschool group, and your child can guess whose items they are.
4. Bury the objects in the dig site, varying the depth at which they are buried from 1-4 inches. It is okay if there are some sections of the dig site that are richer in artifacts than others -- archaeologists sometimes find many artifacts in one small area and few or none in other nearby areas. If you don't think you'll be able to remember where each object is hidden, you may wish to make a small map of the dig site with stars or Xs in the locations where you buried an artifact to serve as a key later on if needed.
5. Smooth the surface of the dig site, being careful not to disturb the markings that show the boundaries of the 3' square.

If you are planning to have your child complete this activity with other homeschooled students who are using *Moving Beyond the Page*, you may decide to have students work in teams. You should have one dig site ready for each group. Each group of students could follow the instructions above to select artifacts and prepare their assigned dig site and then be assigned another group's site to excavate, map, and analyze. It may be helpful to have adult helpers available to provide assistance as needed to each group.

Option 2: An Online Dig

In this activity, your child will explore an online archaeological dig, recording information about three found artifacts and offering an analysis of what she has learned about the civilization that created them from the dig experience. The following website allows your child to explore photos, field notes, and journal entries from actual recent digs around the world. You are encouraged to explore these sites and choose an appropriate online dig for your child to explore.



Archaeological Institute of America — Interactive Digs

www.beyondthepage.com/link/8419/

This site lets you explore recent and past digs through maps, pictures, and detailed field reports and notebook entries.

Whichever online dig you choose, be sure to be available to supervise and assist your child while she is using the Internet. Some of these online digs are challenging, and it may be interesting and enjoyable for you and your child to work through the dig together, asking each other questions and discussing the pros and cons of different decisions that you might make along the way.

As your child works through the dig, she should be filling in the "Artifact Analysis" activity pages with details about three interesting artifacts that she finds along the way.

Wrapping Up

Questions to Discuss

- What do archaeologists do? (Your child should understand that archaeologists analyze artifacts to learn more about human history. She may offer additional details about the kinds of tools archaeologists use, the kinds of artifacts they uncover, and the challenges of archaeology.)
- How do you think the environment of a dig location might influence the work of archaeologists? (Your child's answers will vary, but she may explain that extreme weather conditions make it difficult for archaeologists to work in some areas and that the environment — including weather, terrain, wildlife, etc. — may pose risks to archaeologists, their equipment, and the fragile artifacts they are trying to preserve.)
- If you were an archaeologist, what kinds of things would you want to explore?

Things to Review

Look over your child's activity pages from Activity 2. If your child completed Option 1, check that her map is accurate. For both Option 1 and Option 2, your child's "Analyzing Artifacts" pages should include detailed descriptions and drawings of three artifacts with reasonable conclusions for each object about the materials used to make it, its uses, and its age. Your child's discussion of the people who used or made the object will vary depending on the artifacts your child chooses and her own ideas about them, but her arguments should be logical and supported by the available evidence.

Special Notes



Archaeological Institute of America

www.beyondthepage.com/link/8407/

For parents, this site from Archaeology Magazine provides information about different ongoing digs. Click on a pin on the map and then click on the site's name to learn more about a dig at that location.



Intrigue of the Past

www.beyondthepage.com/link/8549/

If your child is especially interested in archaeology or you wish to extend this lesson, perhaps involving other children in your family in an exploration of archaeology, you may find "Intrigue of the Past: North Carolina's First Peoples" from the Research Laboratories of Archaeology at the University of North Carolina at Chapel Hill to be a helpful resource. While the lesson plans and teaching ideas are designed for a public school setting and the specific artifacts included are from North Carolina, there are a number of creative activities about the fundamental concepts, process of, and issues in archaeology that could readily be adapted to a homeschool setting and that are not focused exclusively on the native peoples of North Carolina.

**Archaeology for Kids from the National Park Service:**

www.beyondthepage.com/link/8402/

This site includes online exploration opportunities, links to websites about archaeology, and recommendations for books, videos, and other resources.

**Archaeology in Your Area**

www.beyondthepage.com/link/8404/

Scroll down and click your region of the United States to learn about archeological sites near you.