

National Park Service
U.S. Department of the Interior

Hopewell Culture National Historical Park



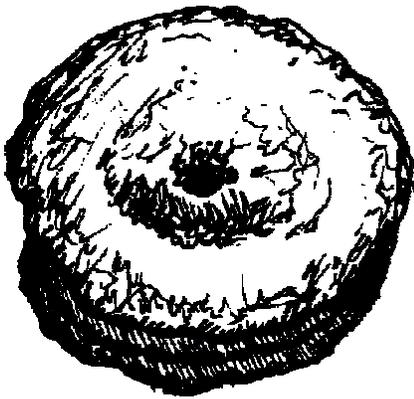
Expeditions into Ohio's Past

Teacher's Guide



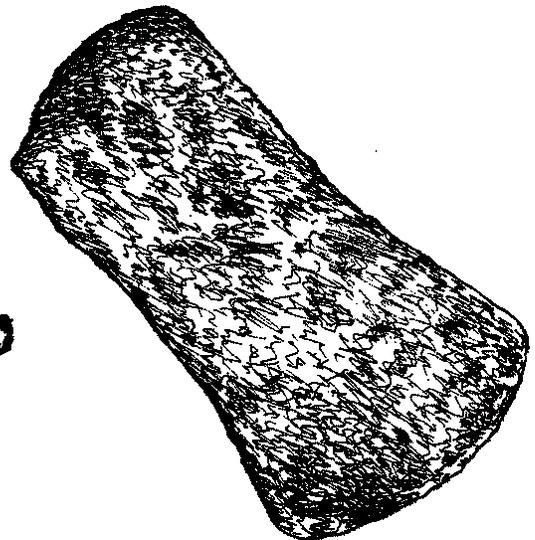
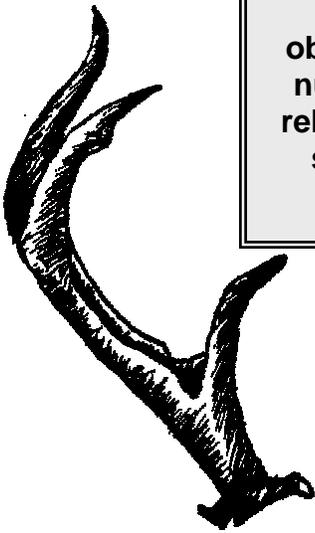
An Integrated Curriculum for Grades 3-5

CLUES TO THE PAST



COPPER

Copper was obtained from the Lake Superior region to make headdresses, ear spools, effigies, and other ceremonial objects. The copper artifacts were made from nuggets beaten into thin sheets. Copper is a relatively soft metal. By pounding several thin sheets together the Hopewell were able to make large objects.



Sharing Ohio's Prehistory

➤ SUMMARY

After reading *Ohio's Prehistoric Past* students will make and write a book to summarize what they have learned.

OBJECTIVES

At the end of this activity, each student should be able to:

- ◆ list five cultures from Ohio prehistory
- ◆ demonstrate familiarity with Ohio prehistory by making and illustrating a small book

BACKGROUND

Read introductory readings prior to this exercise for complete information.

SUGGESTED PROCEDURE

1. Have students read *Ohio's Prehistoric Past*.
2. Lead students in designing the following book:
 - A. Lay the paper so that the 11" side is horizontal



- B. Using a pencil and ruler, measure and mark 2 3/4" from the left side; do the same from the right side. These will be fold lines, if needed, draw pencil lines from the top to bottom.

- C. The book should look like an armoire, with double doors which open in the middle.



- D. On the left front "door," students can make a *word bank* of terms about Ohio's prehistory. On the right "door," they can write a brief story about one of the cultures mentioned in the reading, e.g. the Hopewell.
When the "doors" are opened, the inside space can be used



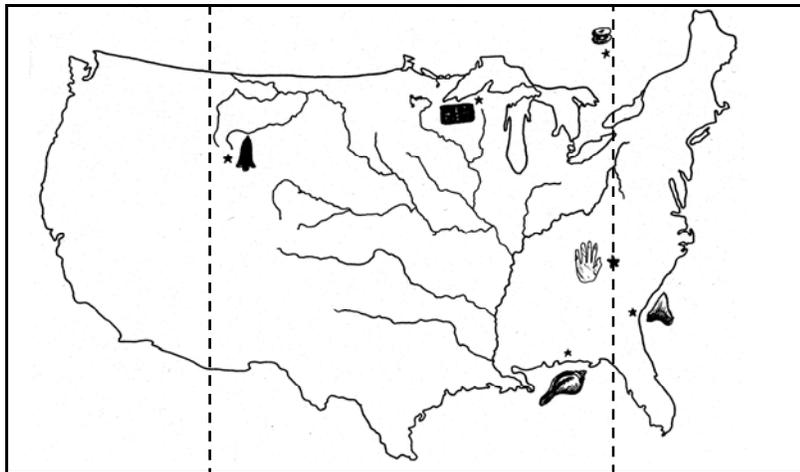
- ◆ **Subject:**
reading comprehension
writing
culture
- ◆ **Duration:** 60 minutes
- ◆ **Setting:** In classroom, prior to a visit to the park
- ◆ **Materials:**
Copy of Ohio's Prehistoric Past
paper: 8 1/2" x 11"
pencils
ruler
markers/crayons
flat surface (desk top)

Did You Know?

Ephraim G. Squier and Dr. Edwin H. Davis, both from Chillicothe, made the first detailed study of prehistoric structures in 1846 titled, *Ancient Monuments of the Mississippi Valley*.

artifact	The Hopewell culture is known for trading because their sites contained materials from far away. Copper from Lake Superior, obsidian from Wyoming, and mica from North Carolina were used to make the artifacts found in their mounds.
copper	
Hopewell	
mica	
obsidian	

to draw a picture or mural to illustrate the student's story



ASSESSMENT

Ask the students to share their books with the class after completion and lead a discussion on why they chose certain ideas, pictures, topics, etc.

EXTENSION

Hopewell Culture National Historical Park's video *Legacy of the Mound Builders* is available for use in the classroom with this activity or before a visit to the park. This video may be used in conjunction with the reading materials for this activity. Call the park for more information and availability of the video.

Comparing Timelines

➤ SUMMARY

Students compare timelines between the Hopewell period and other world events. Students will use personal time lines to begin their study of chronology and stratigraphy.

OBJECTIVES

At the end of this activity, each student should be able to:

- ◆ compare events throughout the world that were occurring while the Hopewell were constructing their mounds 2,000 years ago
- ◆ identify the major periods of cultural change in Ohio's prehistory and list them in their proper chronological order
- ◆ define stratigraphy and chronology
- ◆ demonstrate and explain the importance of intact information to achieve accuracy

BACKGROUND

Chronology is something we use almost everyday. When someone tells us a story or when we watch a news report, it only makes sense if we can understand the story as it happened.

Timelines can visually show changes over time in different curriculum areas such as science, social studies, math and language arts. Timelines can document the events of a person's life, the stages of an animal's life, the sequence of how something occurred or the events in a time period. The timeline of Ohio's prehistoric cultures includes four major periods of time: the Paleo-Indian, Archaic, Woodland and Late Prehistoric.

The proper sequence of events must be known when trying to understand the past. Chronological order means that events are arranged in the order of the occurrence establishing a chronology. One way to display events visually in chronological order is with a timeline. A timeline is divided into equal time segments (month, year, century, for example), with one end representing the oldest events and the other end the most recent events.

Archeologists always try to establish the age of the sites, artifacts,



- ◆ **Subject:**
history
culture
geography
- ◆ **Duration:** 45 minutes
- ◆ **Setting:** In class before or after a visit to the park
- ◆ **Materials:**
Two timeline worksheets (available in appendix)
construction paper cut into 7"x11" strips

Did You Know?

People have been living in what is now Ohio for over 11,000 years.

or events they are studying so that they can place them in chronological order. Each piece of information contributes some understanding to the overall story of the past, but only if information can be placed in chronological order.

Archeological data are often buried. Sites become buried by the deposition of small-grained particles (sand, clay, silt) throughout the action of wind, gravity, and water. When archeologists dig a site, they record the location of what they find, so that chronological order can be established. Objects discovered at the bottom of the pits dug by archeologists are the oldest, while those near the surface are the youngest. Stratigraphy is defined as the arrangement of information or events in layers, such as layers of rock. When vandals and collectors dig or loot a site, they remove objects that could determine the site's chronology, and therefore the archeologist cannot learn the site's chronological placement. Vandals mix the stratigraphy layers together and archeological events cannot be placed in order. Digging a site is like mixing up the pages in a history book. Looting and removing artifacts from a site is like tearing and throwing away a page of the past.

Everyone can help stop this problem by not digging or collecting artifacts from public or private land, by refusing to buy artifacts from people who dig and destroy sites, and by reporting people they see digging and collecting on land where they do not have permission.

SUGGESTED PROCEDURE

After reading *Ohio's Prehistoric Past*:

- ◆ Place the prehistoric timeline where all can see it.
- ◆ Ask the students if they know of any other events happening in the world during the time periods listed.
- ◆ List these events where all can see it.

My Timeline

1. Tell a story the students are familiar with out of sequence and leave some parts out. Ask students what was wrong with the story. Ask, "Why is it important to give information in order, including all of its details?" Define chronology and state the necessity of establishing chronological order when studying the past.
2. Tell the students they are going to be creating personal timelines. Pass out ten pieces of paper approximately 7" x 1". Students should list ten events in their lives. Next to each event, students should draw something that represents that event. These events should not have any obvious time links, such as "my eighth birthday party," or "I started fourth grade." The events could be things like "I was born" (rattle), "the family moved" (moving van), or "we went to Lake Erie on vacation" (lighthouse).
3. Have students shuffle the ten pieces. Pair the students together and have the partners exchange their unordered timelines. Each student should try to place the other's timeline into its correct order with the most recent at the top. Students should not communicate with each other.

4. After five minutes, have students return the “reordered” timeline to its owner, with their best guess of the chronology. Be prepared for unpredictable results. Have students share with their partner the correct order of their timelines.
5. Discuss what happened when we jumbled the pieces. Was the other person able to reconstruct your timeline without communication? It is difficult, sometimes impossible, to reconstruct a story if the order of events is not known.
6. Have students randomly remove four events from their personal timeline. Ask students if the chronological order would have been more difficult to construct and if the story of their classmate would have been as complete if there were even fewer strips.
7. Connect this activity to archeological sites by pointing out how archeological information is usually impossible to place in order if the site has been dug by looters (like scrambling or shuffling event strips) or if objects have been removed (removing strips).
8. Distribute the “My Timeline” activity sheet (which forms the backing for the timeline). Students glue their own events in chronological order with the most recent event at the top. They can then write the year of the event in the columns to the left of the strips or simply number the events one through ten.
9. Explain stratigraphy as the arrangement of information or events in layers, such as layers of rock. Ask students what happens when the stratigraphy is jumbled. Explain vandalism as a jumbling of the pieces.

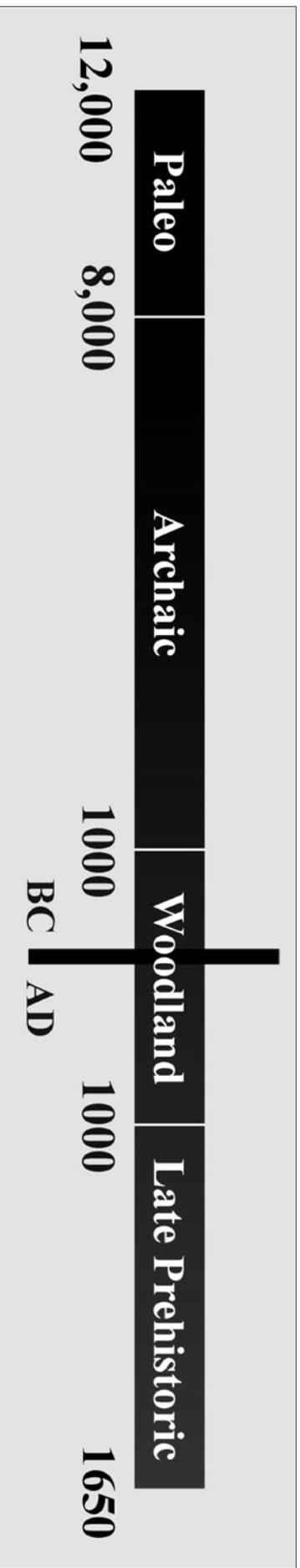
ASSESSMENT

1. Show picture of “Stratigraphic Section.” Ask students how the layers here compare to their timelines.
2. Using a drawing on the chalkboard, different books layered on top of each other, or any other visual model, to demonstrate how stratigraphy is formed.
3. Using the background information and the “Stratigraphy Section” activity sheet, discuss the effects of illegal digging on archeological data recovery efforts.
4. Use the sheet and timelines to explore the following questions:
 - a. In what ways is your chronology similar to an archeological stratigraphy section? In what ways is it different?
 - b. Imagine that you cannot remember significant events in your life. How would that change the history of your life?
 - c. In what ways is a hole dug by vandals in an archeological site similar to a loss of significant events in your life?
 - d. In summary, what might you say to an artifact collector about the importance of leaving sites undisturbed, as it relates to the importance of stratigraphy?

EXTENSION

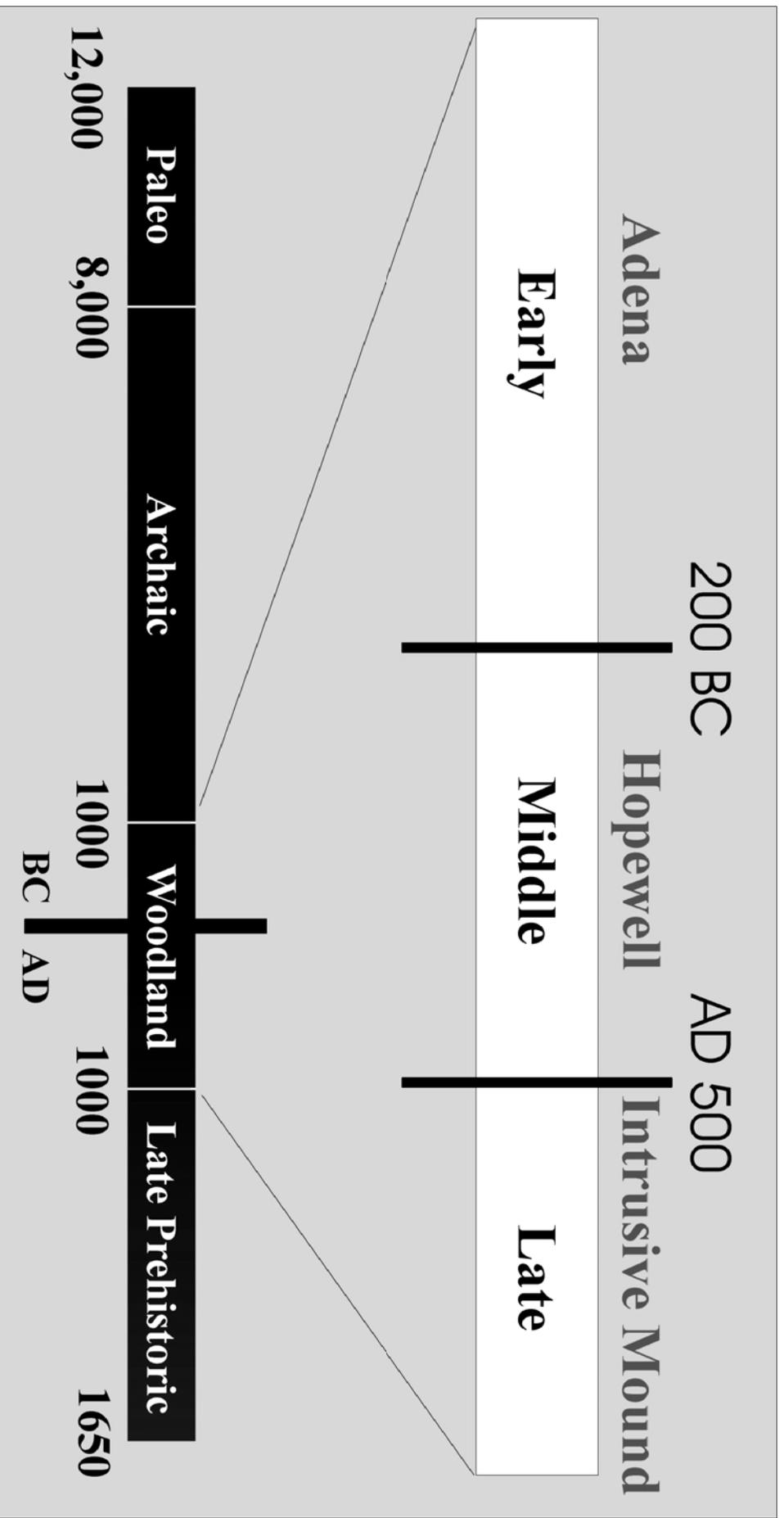
Lead a discussion with the class by asking, “Whom does the past belong to?” What can they do as students to help with preservation? Note that some states have laws protecting grave sites, even on private land.

OHIO'S PREHISTORY



OHIO'S PREHISTORY

The Woodland Period



Fun With Words

➤ SUMMARY

By participating in a game, students learn vocabulary relating to prehistoric cultures and archeology.

OBJECTIVE

At the end of this activity, each student should be able to:

- ◆ define at least four terms relating to prehistory and the science of archeology

BACKGROUND

Throughout this curriculum guide you will encounter vocabulary words which you will want to introduce and reinforce. Some fun and motivating methods are described here. Modify them where necessary to suit your classroom needs.

SUGGESTED PROCEDURE

1. Encourage students to become familiar with the terms of the vocabulary list. Suggest studying the list at home prior to attending class.
2. On the back of each student tape a card with one vocabulary word written on it. The card should be placed so that others can see it but the wearer cannot.
3. Explain the rules to the students. The wearer is permitted to ask each individual one question which must be answered yes or no. For example, “Am I a person?” To the next person, “Am I a thing?” “Am I an animal?” “Am I food?” “Am I a deer?”
4. Once students figure out what they are, they may take their card and attach it to their shirts. At this point they can give hints to others who have not figured out what they are.
5. Keep going until everyone has determined who or what they are.



- ◆ **Subject:**
archeology
reading comprehension
culture
- ◆ **Duration:** 30 minutes
- ◆ **Setting:** In classroom, prior to a visit to the park. Will need an open area where students can move.
- ◆ **Materials:**
glossary
index cards
masking tape

Did You Know?

Even though researchers have been studying the Hopewell culture for over 100 years, details such as what language they spoke may never be discovered.

ASSESSMENT

Dig for Words

1. Divide the students into small groups or pairs. Have each group choose one person to act as the secretary.
2. Write a multi-syllabic word on the chalkboard or overhead projector. Direct the students to copy it vertically on a sheet of paper. After each letter of the word, write one or two words that include that letter and also pertain to the topics of archeology and prehistory.
3. Example:

Archeology
curator
Trowel
mica
Feature
Atlatl
Copper
Trade

EXTENSION

Tic-Tac-Word

This is played just like familiar tic-tac-toe game, but with a twist. On the chalkboard or overhead projector, draw a tic-tac-toe grid. In each square write a different vocabulary word. Divide the class into two teams. Determine which team goes first; call it the X team. Call on the first person of the X team to define any word on the tic-tac-toe board. If the response is correct, the team gets an X in that square, but if the response is incorrect, an O goes in the square. Now it is the first player on the O team to choose a word. Scoring proceeds in the same manner described. A game is won when a team has three in a row. At the end of each game, erase the words and add new ones. Play begins where it left off on the previous game. Best three out of five games wins the championship for the day.

Quick Quiz

For a quick review use this method. Write the list of vocabulary words on the board or overhead projector. Call on a student to define any word of his/her choosing. That student, in turn chooses another person to put the word in a sentence so that the definition of the word is clear. Go on to the next word in a sentence; continue to allow students to choose the next person.

Locate Hopewell Culture National Historical Park

➤ SUMMARY

The student will locate and identify Hopewell Culture National Historical Park and nearby communities and rivers by labeling maps of Ohio and the United States.

OBJECTIVES

At the end of this activity, each student should be able to:

- ◆ locate Hopewell Culture National Historical Park and the Hopewell area of influence in relationship to: a) the continental United States, b) the Scioto, Ohio, and Mississippi Rivers, c) modern cities such as Chillicothe, Columbus, Newark, and Portsmouth
- ◆ list five raw materials obtained by the Hopewell through trade and/or travel

BACKGROUND

Hopewell Culture National Historical Park preserves several earthworks built by the culture we call the Hopewell. By locating themselves near major waterways, such as the Scioto and Ohio River, the Hopewell obtained materials that must have originated hundreds of miles away. The waterways led them to places such as the Western Rockies for obsidian and to the Atlantic Ocean for saltwater shells and shark teeth.

At one time earthworks could be found throughout eastern North America. The sphere of influence of the Hopewell stretched for hundreds of miles. Today, perhaps only 15-20% of these earthworks and mounds remain. A few are preserved in state memorials and Hopewell Culture National Historical Park. The remnants of many earthworks and individual mounds remain on private property. This activity ends by looking at the location of a few of the larger publicly owned sites.

SUGGESTED PROCEDURE

1. Introduce students to Hopewell Culture National Historical Park.
2. Locate North America on the globe. Then have the students locate Ohio on the United States map. Locate Chillicothe and then locate Hopewell Culture National Historical Park on the Ohio map. Ask students to name and locate the major



- ◆ **Subject:** geography
- ◆ **Duration:** 30 minutes
- ◆ **Setting:** In classroom before a visit to the park
- ◆ **Materials:**
Maps of Ohio & U.S (available in appendices)
Absolute and Relative Location worksheet
- ◆ **Vocabulary:**
absolute location
relative location

Did You Know?

Hopewell Culture National Historical Park is one of eight national parks in the state of Ohio.

cities in Ohio (Columbus, Cincinnati, Cleveland, Toledo, etc.). Have students determine the location of prehistoric sites and other National Park Service sites in the state of Ohio. Repeat the process with rivers throughout Ohio and the United States.

3. Discuss the location of Hopewell Culture National Historical Park and its relationship to the rest of the United States.
4. Distribute a copy of the Absolute and Relative Location worksheet to every student. Students will label their home city, Hopewell Culture National Historical Park, Chillicothe, Columbus, and other major urban communities, rivers, mountains, and major bodies of water.
5. Have students locate items from the Hopewell trade and travel network:
 - a. Mica from the Blue Ridge Mountains
 - b. Shark teeth from the Atlantic Ocean
 - c. Shells from the Gulf of Mexico
 - d. Copper from Lake Superior, Michigan
 - e. Obsidian from Yellowstone National Park
 - f. Silver from Canada
 - g. Pipestone from Southern Ohio and Indiana along the Ohio River

ASSESSMENT

Absolute and Relative Location

1. Show students the map of Ohio and begin a discussion distinguishing absolute from relative location.
2. Pass out a copy of the Absolute and Relative Location worksheet to students. Using the information included on the worksheet and the map of Ohio, have students locate the site listed on the worksheet.
3. Students finish filling in remainder of worksheet.

Absolute and Relative Location

Absolute location means where something is located using a grid system. On a map you have both an alphabet and number grid lines and latitude and longitude grid lines. These tell exactly where something is located. Relative location means where something is located near or next to. The capital of Ohio's absolute location is 40° N, 83° W. Columbus's relative location is in Franklin county on the Scioto River. Some sites may have the same absolute location on this grid, but still be miles apart.

Prehistoric Sites	Absolute Location latitude and longitude lines	Relative Location City, county, near a river or other landform
Fort Ancient State Memorial	39°N, 84°W	Lebanon, Warren County, near Little Miami River
Fort Hill State Memorial	39°N, 84°W	Sinking Springs, Highland County, near Ohio Brush Creek
Leo Petroglyphs State Memorial	39°N, 83°W	Coalton, Jackson County, west of Raccoon Creek
Miamisburg Mound State Memorial	40°N, 84°W	Miamisburg, Kettering County, near the Miami River
Hopewell Culture National Historical Park, Mound City Group	39°N, 83°W	Chillicothe, Ross County, along Scioto River
Newark Earthworks State Memorial	40°N, 82°W	Newark, Licking County, near Licking River
Seip Mound State Memorial	39°N, 83°W	Bainbridge, Ross County, along Paint Creek
Serpent Mound State Memorial	39°N, 83°W	Peebles, Adams County, near Brush Creek

Note: There are more mound sites around Ohio than what is listed here; see if you can find out where they are.

Name: _____

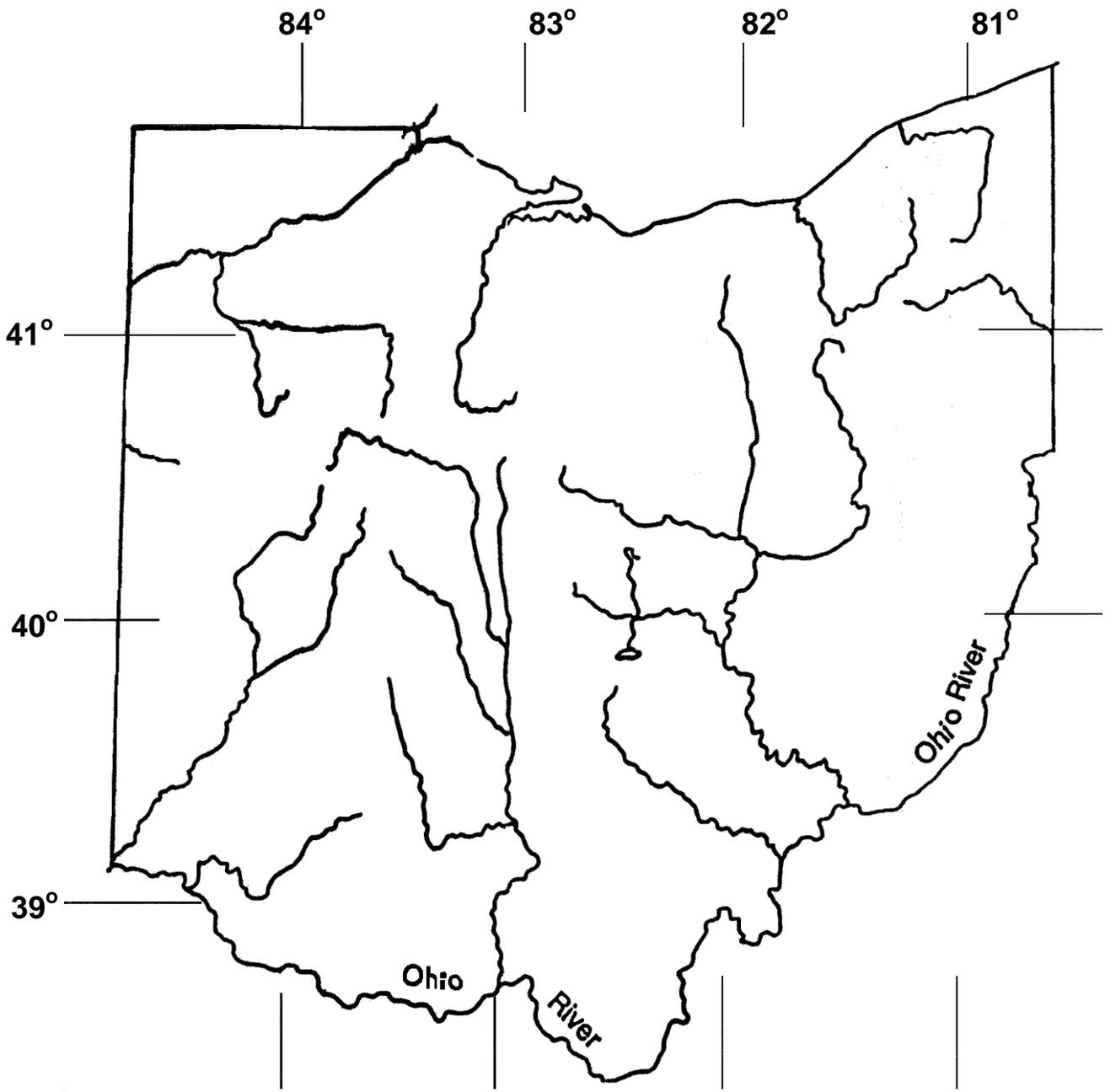
Absolute and Relative Location

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Fill in the chart below giving either the absolute or relative location for the prehistoric sites of Ohio. Locate these sites on an Ohio map.

Prehistoric Sites	Absolute Location latitude and longitude lines	Relative Location City, county, near a river or other landform
Fort Ancient State Memorial	39°N, 84°W	
Fort Hill State Memorial		Sinking Springs, Highland County, near Ohio Brush Creek
Leo Petroglyphs State Memorial	39°N, 83°W	
Miamisburg Mound State Memorial	40°N, 84°W	
Hopewell Culture National Historical Park, Mound City Group		Chillicothe, Ross County, along Scioto River
Newark Earthworks State Memorial	40°N, 82°W	
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Note: There are more mound sites around Ohio than what is listed here; see if you can find out where they are.



Why is the Past Important? Part One

➤ SUMMARY

Students bring to class an object, photograph, or drawing that represents their past. Through discussion, students will share reasons for the importance of preserving the past.

OBJECTIVES

At the end of this activity, each student should be able to:

- ◆ discuss the importance of preserving their past
- ◆ define why the study and preservation of the human past is important

BACKGROUND

Archeological sites and artifacts can be messengers from the past. If we know how to read their messages, these remains can tell us about the people who made, used, and left them behind. Although the owners of the artifacts and the inhabitants of the sites may have lived hundreds or even thousands of years ago, they undoubtedly had many of the same needs and concerns that we have today. Each culture, whether hundreds of years old or living next door, has its value.

These messages from the past belong to everyone. Most people are curious about links to the past. Material remains and the context within which they are found provide clues to cultural continuity and possibly, a glimpse on their perspective. Without these material remains, a link to the past is lost. The survival of a culture depends on maintaining the links from past to present to future.

The link to the past is provided through scientific analysis as well as through traditional values placed in archeological sites and artifacts. For example, Adena Mansion and Gardens, the 1806 home of former Governor Thomas Worthington, is valued because it provides a tangible link to the early history of Ohio. Preserving this historic building aids in providing scientific information about the lives of the inhabitants. Examining sites used by the Hopewell and other prehistoric cultures provides scientific information about the prehistory of our region. Preservation ensures a tangible link to the material culture of past societies.



- ◆ **Subject:**
culture
history
preservation
archeology
- ◆ **Duration:** 30 minutes
- ◆ **Setting:** In classroom, prior to a visit to the park
- ◆ **Materials:** Personal objects from home

Teacher Tip

Follow-up a field trip to Hopewell Culture National Historical Park with Part Two of this activity located in Section Four: Remembering the Past.

SUGGESTED PROCEDURE

1. Instruct the students to bring a picture or object from home that tells about their family's past. They may also bring a drawing of the object.
2. Share "background" information.
3. Working in groups of three or four, students should tell each other what the object reveals about their past.
4. Begin a class discussion. Ask the following questions:
 - ◆ Is it important for you to know about your past? Why or why not?
 - ◆ Is it important to know about the human past? Why or why not?
 - ◆ Humans have lived in Ohio for at least 14,000 years. Is it important to know about these prehistoric lives? Why or why not?
5. Ask students "What can we learn from the past?" Have students list ideas. Some possible answers include: how humans lived in the past; how culture changes; why culture changes over time.

ASSESSMENT

Ask students:

If your past is important to you, what statement can you make about the importance of the past in general?

If your past is important to you and the object you brought from home reminds you of your past, how would you feel if someone took that object?

EXTENSION

1. Have students exchange their object with a partner and hypothesize, without consulting the owner, what the object means to each other. Instruct students to compare notes about their personal objects.
2. Discuss with students the value of other cultures and ask them why we should be sensitive to other cultures.
3. See *Why is the Past Important? Part Two* in Section Four: Remembering the Past.

Look it Up!

➤ SUMMARY

Students complete the following worksheet to learn how to differentiate between reference materials as well as become familiar with some of the terms relating to archeology and prehistory.

OBJECTIVES

At the end of this activity, each student should be able to:

- ◆ identify six types of reference tools
- ◆ demonstrate familiarity with reference tools

BACKGROUND

Each day people use many kinds of reference materials to find information. To find the telephone number of a friend, you would look in the telephone book. The telephone book is a reference source. If you want to know where a park is in the state of Ohio, you would look at a map of the state. The map shows where the park is located, what roads and towns are nearby, and even the county where the park is located. You might watch a program on television about shark's teeth and want to know where in the oceans sharks live. You could look in an atlas to find out. All these different tools make finding information easier. Almanacs, atlases, dictionaries, encyclopedias as well as the World Wide Web are all useful reference materials.



SUGGESTED PROCEDURE

1. Discuss the definitions of the various reference tools listed on the activity sheet. Have students give examples of how each tool is used.
2. Have students complete the worksheet, *Look it Up!* Stress to students that the object is not to answer the questions (yet), but to learn how to find the information requested.

ASSESSMENT

1. Encourage students to look up the answers to the questions.
2. Discuss computers and their role as reference tools.



- ◆ **Subject:**
reference tools
reading comprehension
archeology
- ◆ **Duration:** 30 minutes
- ◆ **Setting:** In classroom, before or after a visit to the park
- ◆ **Materials:**
Copies of *Look it Up!*

Teacher Tip

Enlist the help of your school's librarian when introducing this activity to your students.

Look it Up!



Fill in the blanks with the correct reference tool used to answer the questions. When you have correctly identified the proper tools go back and try to answer the questions using the reference tools you selected.

Almanac	published each year, lists up-to-date facts, figures, charts and records about a variety of subjects
Atlas	a collection of maps and charts that provide information about a certain place's climate, population, geology, elevation, vegetation
Dictionary	gives correct spelling, pronunciation and meanings of words
Encyclopedia	a book or groups of books that have information arranged alphabetically on persons, places and things
Reader's Guide to Periodical Literature	a group of books that can help you find magazine articles on subjects
World Wide Web	collection of globally distributed text, multimedia documents and files and other network services linked to create an electronic library from which information can be retrieved quickly by searches

Read the questions below and write the reference source in which you would find the information.

1. What is an artifact? Dictionary
2. What do we currently know about the Hopewell? Encyclopedia
3. How does the climate in Mexico differ from that in Ohio? Atlas or World Wide Web
4. What percentage of the population in Ohio is Native American? Almanac
5. What is it like to live on an Indian Reservation today? Reader's Guide or World Wide Web
6. What other mound building cultures were found in Ohio? Reader's Guide or Encyclopedia
7. What are archeologists studying now? Reader's Guide or World Wide Web
8. Define preservation. Dictionary

Look it Up!

Fill in the blanks with the correct reference tool used to answer the questions. When you have correctly identified the proper tools go back and try to answer the questions using the reference tools you selected.



Almanac	published each year, lists up-to-date facts, figures, charts and records about a variety of subjects
Atlas	a collection of maps and charts that provide information about a certain place's climate, population, geology, elevation, vegetation
Dictionary	gives correct spelling, pronunciation and meanings of words
Encyclopedia	a book or groups of books that have information arranged alphabetically on persons, places and things
Reader's Guide to Periodical Literature	a group of books that can help you find magazine articles on subjects
World Wide Web	collection of globally distributed text, multimedia documents and files and other network services linked to create an electronic library from which information can be retrieved quickly by searches

Read the questions below and write the reference source in which you would find the information.

1. What is an artifact? _____
2. What do we currently know about the Hopewell? _____
3. How does the climate in Mexico differ from that in Ohio? _____
4. What percentage of the population in Ohio is Native American? _____
5. What is it like to live on an Indian Reservation today? _____
6. What other mound building cultures were found in Ohio? _____
7. What are archeologists studying now? _____
8. Define preservation. _____

NOTES

A Penny For Your Thoughts

➤ SUMMARY

Students will examine an artifact and analyze what it tells about a given society.

OBJECTIVES

At the end of this activity, each student should be able to:

- ◆ define the differences between observation and inference
- ◆ use critical thinking skills to analyze, brainstorm, and interpret the item being examined

BACKGROUND

Science is based on observation and inference. Any phenomenon being studied must first be observed. An inference is a reason proposed to explain an observation. The hypothesis is a chosen inference that the scientist will attempt to confirm or disprove through testing.

Archeologists use observation and inference to learn the story of past people. By making observations about objects (artifacts and sites) they infer the behavior of the people who used the objects. Among the artifacts an archeologist finds at a site, sometimes a single object will provide vast amounts of information about a society. An example is a penny. From a penny, an archeologist could gather certain observations about the society from which it came, such as:

- ◆ The society had access to minerals
- ◆ Men in the society wore facial hair
- ◆ The society was capable of erecting large, open air monuments
- ◆ The society had a numerical system
- ◆ The society had a written language

From the observations of the coin, we may be able to infer other information. We could make the inference that the makers of this coin valued liberty. We cannot observe past values, feelings or emotions. How do we know that “Liberty” spells out a value, and not the name of the bearded man? To test that inference (hypothesis), archeologists would look for evidence at the site.



- ◆ **Subject:**
archeology
critical thinking
- ◆ **Duration:** 30 minutes
- ◆ **Setting:** In classroom, before or after a visit to the park
- ◆ **Materials:**
penny for each student

Did You Know?

About 200 carved effigy pipes were discovered underneath Mound 8 by Squier and Davis during their explorations of Mound City in 1846. That is why the mound is referred to as “Mound of the Pipes” today.

SUGGESTED PROCEDURE

1. Present students with a possible observation-inference scenario from their lives. Example: All the students in this classroom who ate in the cafeteria on Tuesday were ill on Wednesday (observation). What reasons (proposed inferences) might there be for this illness? Examples: food poisoning, virus, a student uprising.
2. In what ways might one or more of these inferences (hypotheses) be tested in order to come to a conclusion about the cause of the illness? Examples: Send all the students to the school nurse for examination; test the food from Tuesday; obtain a medical history from the parents of each student.
3. Divide the students into groups of three or four. Distribute one or two pennies per group. Ask the students to imagine that this “artifact” comes from an unknown society. Their task is to analyze the artifact and determine as much as possible about the people who made this artifact.
4. Ask the groups to create a list of statements about the coin. Within their groups students then determine which of their statements are observations and which statements are inferences.
5. Have them choose one inference (hypothesis) and think of ways archeologists might test it by looking at other evidence at the site.



ASSESSMENT

1. Ask the students to summarize what they learned about the importance of observation, inference, and hypothesis in archeology.
2. Discuss the problems of making assumptions about another culture based on how our culture lives. For example, archeologists assumed for years that the Hopewell were a hunting and gathering society. New evidence indicates that they may have also grown plants. Assuming they were a hunting and gathering society implies a society that seasonally moves, following the food source. The new evidence would suggest a population that may have been less migratory than previously thought.

EXTENSION

1. Give each group a foreign coin and follow the same procedure as above.
2. Ask students to bring in a food label. A soup can label works very well. The teacher can ask the same questions from this activity.

Today & Yesterday

➤ SUMMARY

Students will complete a chart comparing their lives with those of the Hopewell.

OBJECTIVE

At the end of this activity, each student should be able to:

- ◆ list the ways in which Hopewell and modern people meet basic needs
- ◆ compare and contrast the basic needs of the Hopewell to modern people

BACKGROUND

We all have the same basic needs: food, water, shelter. Yet the ways in which we meet these basic needs are as diverse as our habitats. While our physical needs are essentially the same as the Hopewell, the way we meet them is quite different. This activity compares our culture with the Hopewell culture.

SUGGESTED PROCEDURE

1. Lead the students into a discussion of survival by brainstorming a list of basic needs. Eliminate all non-essentials until the list approximates the list on the teacher page.
2. Pass out copies of “Today & Yesterday” and have students fill in the boxes. On some areas, if they cannot name the item, they may draw it. For example, if they cannot name the shelter, they can draw a picture of it.
3. Lead students in a discussion of what items on the list are the same. Were these people like us or very different?

ASSESSMENT

Continue to lead students into further discussions about culture with the activity “Whose Culture is it Anyway?”



- ◆ **Subject:**
culture
critical thinking
- ◆ **Duration:** 30 minutes
- ◆ **Setting:** In classroom, prior to a visit to the park
- ◆ **Materials:** Copy of the “Today & Yesterday” worksheet

Did You Know?

Squier and Davis' work *Ancient Monuments of the Mississippi Valley* was the first publication of the Smithsonian Library.

TODAY & YESTERDAY

<i>Teacher Page</i>	YOU	HOPEWELL
SITES	Chillicothe Bainbridge Columbus	Mound City Group Hopeton Earthworks Seip Earthworks
SHELTER	Apartment House Mobile Home	Bark House
FOOD	Pizza Milk French Fries	Deer Squash May grass
CLOTHING	Jeans Sweats Hats Tennis Shoes	Breech Clothes Fur Skirts Deerskin Shirts Shoes

TODAY & YESTERDAY

Name: _____	YOU	HOPEWELL
SITES		
SHELTER		
FOOD		
CLOTHING		

NOTES

Comparing Cultures

➤ SUMMARY

Students will compare cultures using a chart.

OBJECTIVES:

At the end of this activity, each student will use a chart to:

- ◆ list different ways that cultures meet their basic human needs
- ◆ recognize that archeologists study how past cultures met basic needs by analyzing and interpreting the artifacts those cultures left behind

BACKGROUND

Culture is defined as the behavior patterns, arts, beliefs, and products of human work and thought typical of a group or population. These are usually behavior patterns passed down from an older generation to the next. Anthropology is the comparative study of humans and their behavior. Cultural anthropologists usually study behavior by observing the members of a cultural group as they live their lives and interact with one another. Archeologists learn about past cultures by analyzing material evidence (sites and artifacts).

People everywhere have several basic needs which must be met. These basic needs may be categorized as follows:

1. The need for food and water (economics)
2. The need for protection from the elements (clothing and shelter)
3. The need to reproduce and perpetuate the culture (marriage, kinship, education)
4. The need for explanation (religion, philosophy, science)

Human beings must satisfy basic needs in order to survive. Many of these needs are met through cultural adaptations. The many different ways that cultures evolve to meet these basic human needs result in the world's rich cultural diversity.

When studying other cultures, there is a tendency to emphasize the differences between people and to look at other cultures as inferior due to their differences. Cultures with less sophisticated forms of technology are frequently portrayed as simple-minded and naïve. However, on the contrary, such people often have



- ◆ **Subject:**
anthropology
- ◆ **Duration:** 30 minutes
- ◆ **Setting:** In classroom before or after visit to park
- ◆ **Materials:**
“Comparing Cultures” activity sheet

Did You Know?

In 1917 Mound City was purchased by the War Department for the construction of a WW1 Army training facility called Camp Sherman.

Only one mound, mound 7 (Central Mound), was left standing when the camp's construction was completed.

unequaled understanding, knowledge, and adaptability to the environments in which they live. It is important not to accentuate “them” and “us.” When scientifically studying other cultures it is necessary to suspend judgment. One culture is neither better nor worse than another, just different.

A basic assumption of archeological study is that people who lived in the past had the same basic needs for existence as do people living in the present. Archeologists are anthropologists study past cultures by analyzing material remains (artifacts and sites) to learn how people met their basic needs. Archeologists could be compared to Sherlock Holmes, a detective of the past. They gradually piece together the culture of a people to understand more about them. Alone, artifacts disclose very little about a culture. By studying sites, artifacts and their relationship to each other and the environments archeologists discover the way people lived. Archeologists study a culture by studying the things the people left behind. As we learn about these past cultures through archeology, we also find that we learn about ourselves and that we share the same basic needs.

SUGGESTED PROCEDURE

1. List on the board students’ responses to the following: “What do you need to have in order to live?”
2. Now, help students categorize their list. They do not have to arrive at the four categories outlined above. Anthropologists themselves do not agree on how to categorize their needs. For example, the students may come up with eight needs: food, water, shelter, clothing, reproduction, transportation, education and explanation.
3. Distribute the “Comparing Cultures” activity sheet to the students. Write the category of basic needs (food, shelter, etc.) down the vertical column on the chart’s left side.
4. The students then construct the chart, comparing and contrasting the basic human needs as they are met in different cultures. The supplied “Teacher’s Page” simply offers suggestions using the four categories outlined above in the background material.
5. In a class discussion, the students compare and contrast our culture with two others (early settlers and the Hopewell). If either culture seems strange or inferior to the students, inform them that our culture can be baffling to people from another culture. For example, we obtain food mainly from grocery stores, whereas the Hopewell gathered their food from their environment.
6. Explain that because archeologists can neither ask the people who left the artifacts how they met their needs, nor observe them using the artifacts, past behavior must be inferred from the material remains of the culture. For example, if primitive plant and animal remains are present, archeologists could infer that the people were hunters/gatherers.

ASSESSMENT

As you analyze the chart, what do you notice about the ways cultures meet their basic needs? How do archeologists study past cultures? The students turn in their activity sheets for evaluation.

Comparing Cultures

Basic Needs	Today	Early Settlers (18th-19th century)	Hopewell (200 BC-AD 500)
Home economics (food and water)	pizza hamburgers ice cream tacos spaghetti bottled water city water systems and wells	corn potatoes wheat dairy products: eggs, milk, cheese cattle/pigs/sheep/chickens water from creeks/rivers and wells	sunflower wild berries fish/fresh water mussels deer/buffalo geese/ducks/wild turkey little barley nuts water from creeks/rivers
Protection from elements (clothing and shelter)	jeans t-shirts athletic shoes dresses clothes made of cotton, polyester, wool, and leather apartments/condos brick houses frame houses hotels/motels	clothes made of cotton, wool and leather long dresses with many layers stockings breeches/trousers boots log cabins brick houses frame houses	skirts (wrap-around type) breech clothes made out of leather animal skins some woven materials houses made of poles covered with skins or bark
Reproduction of culture	weddings/marriage school/college television & books family traditions holidays	weddings/marriage family traditions holidays	rituals weddings/marriage family traditions holidays
Explanation	Christianity Judaism Buddhism Islam oral histories/ storytelling	Christianity Judaism Buddhism Islam oral histories/storytelling	Probably animistic/shamanistic (believed that all things had a spirit; relied on a spiritual leader who exerted influence over the spirit world) oral histories/storytelling

**This serves as simply a suggestion and reference guide based on the four needs outlined in the background material. Students may organize theirs differently.*

Comparing Cultures

Basic Needs	Today	Early Ohio Settlers (18th-19th century)	Hopewell (200 B.C.-A.D. 500)