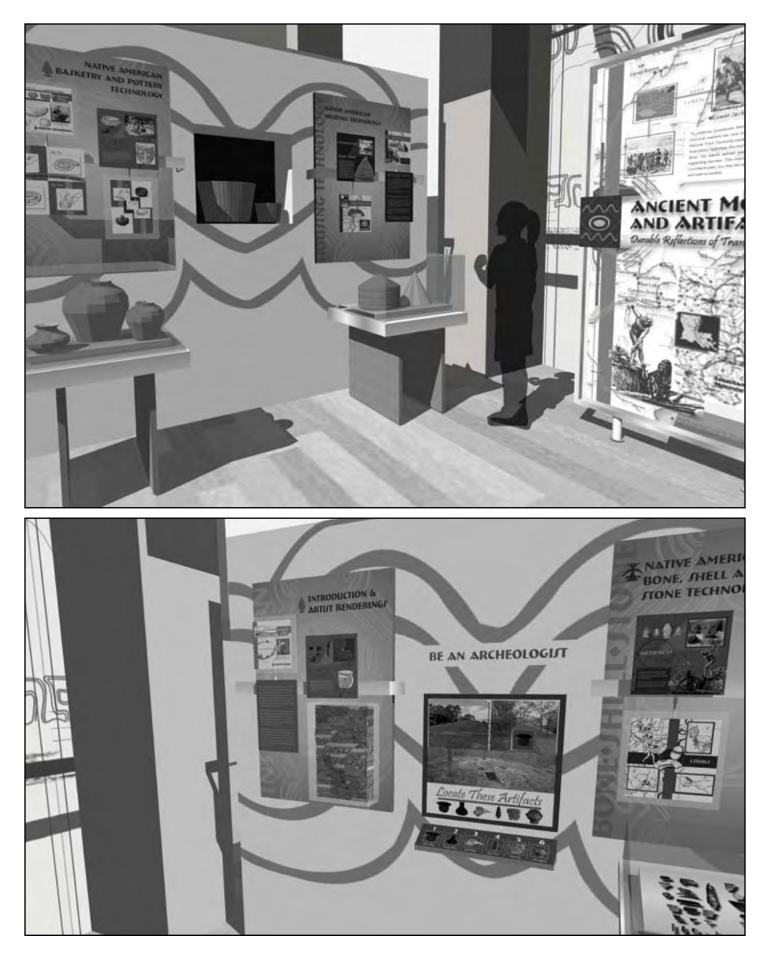


LSU Indian Mounds and Artifacts: Learning about LOUISIANA Native Americans



THE LSU MUSEUM OF NATURAL SCIENCE



Renderings of exhibit are provided by Southwest Museum Services www.swmuseum.com

Note to parents, teachers, and activity coordinators:

This book is designed around the newest display of the LSU Museum of Natural Science. This new exhibit, entitled "Ancient Mounds and Artifacts," tells you the story of the LSU Indian Mounds and teaches you some basic facts about Louisiana's Native Americans.

The book contains a variety of activities for kindergarten through 8th grade students, but the activities can easily be adapted for children of all ages. Its main purpose is to serve as a complement to the LSU Museum of Natural Science (LSU MNS) self-guided visit or to complement the loan of the "Ancient Mounds and Artifacts" traveling exhibit.

We hope that this activity booklet will help our young visitors get acquainted with our museum and make the most of their visit. Each activity in the book is designed to enhance students' knowledge and skills that are important for elementary and middle-school education. The activities do not require a visit to the LSU MNS.

Thanks are extended to Lessie Freeman, of the Louisiana Department of Education, Social Studies Program Coordinator, who gave her time to review the document and provided feedback.

If you have comments or questions about this activity book, please send us your feedback and suggestions to help us improve the book and make it a better tool for teaching social studies principles to elementary and middle school children. You can also tell us about class projects you did when visiting us at the MNS. We would love to add them to our web section "Educational Activities" with your name and school listed.

The book was funded thanks to a grant from the Louisiana Board of Regents awarded to Dr. Sophie Warny, Dr. Rebecca Saunders, and Mr. Steve Fullen. The content of this book was developed through a collaboration between the LSU/MNS Education Office and the Division of Anthropology.



You can send us your feedback or activities at: **Education Office Museum of Natural Science** Louisiana State University 119 Foster Hall Baton Rouge, LA 70803 Phone: 225-578-3080 Fax: 225-578-3075 E-Mail: mused@lsu.edu

For more information about the LSU Museum of Natural Science, please visit our website at **www.museum.lsu.edu** for general information and research being conducted at the MNS or you can reach us at **www.museum.lsu.edu/education** for information on our outreach programs and

exhibit displays.

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Archaeology and Native Americans in Louisiana Activity Book Grade Level Expectations (GLE) Correlation

SS- Social Studies, ELA- English Language Arts, S- Science, M- Mathematics

Activity	3rd	5th	8th
Louisiana Ancient Mounds Driving Trail	SS : 1,4,5,9,15,16,19,47,55 ELA : 45-52 S : 7 M : 13,14,19,25,26	SS: 1,2,3,7,15,27 S: 11 M: 15,17	SS : 2,11,65,70,75,78 ELA : 39-46 S : 6,7,11 M : 6,7,9,10,34
lf I lived in Louisiana 2000 years ago	SS: 11,50,51,55 ELA: 11,22-25,28-36,45-52	SS: 14,15,18,22 ELA: 4,5,9,12,18-22,26- 31,42-48	SS: 2,11,62,75 ELA: 5,9,15-27,39-46
Building the LSU Indian Mounds	SS: 1,4,15,16,19,55	SS: 1,2,3,14,15	SS : 4
Mound Stratigraphy	SS: 11,15,16,19,46,55	SS : 14,21	SS: 62,65,70,75 ELA: 11 S: 1
Mapping an Archaeological Site: The 2x2 Grid System	SS: 1,8,15	SS: 1,2,3,15	SS : 2 S : 1
Native American Place Names	SS: 15 ELA: 1,22-25,28-36,45-52	SS: 14,15,16,27 ELA: 1,4,18-22,26-31	SS: 6.11,75 ELA: 1,15-27,39-46
Artifact Classification	SS: 11,15,16 ELA : 45-52	SS: 15,16,18,27	SS: 62,75
Interpreting Artifacts	SS: 11,15,16,49 ELA : 45-52 S: 2,3	SS: 15,16,18,27 ELA: 14 S: 1,2,3	SS: 62,75 S: 1
Louisiana Impressions and Decorations in Earthenware	SS: 11,15,16 ELA: 45-52	SS : 15,16,18,27	SS: 62,75
Design Your Own Artifact	SS : 16	SS: 15,16,18,27	SS : 62
Flint Knapping: Native American Lithic Technology	SS: 11,16,20	SS: 15,18	
Wattle and Daub Construction	SS: 11,15,16,19 ELA: 45-52	SS : 15,16,18,27	SS : 11,75

Louisiana Ancient Mounds Driving Trail

GLEs, Grade Levels and Subject Areas

3rd

SS: 1,4,5,9,15,16,19,47,55 **ELA**: 45-52 **S**: 7 **M**: 13,14,19,25,26

5th SS: 1,2,3,7,15,27 **S**: 11 **M**: 15,17 8th SS: 2,11,65,70,75,78 ELA: 39-46 S: 6,7,11 M: 6,7,9,10,34

Purpose

Students will use map data to answer a series of questions.

Background

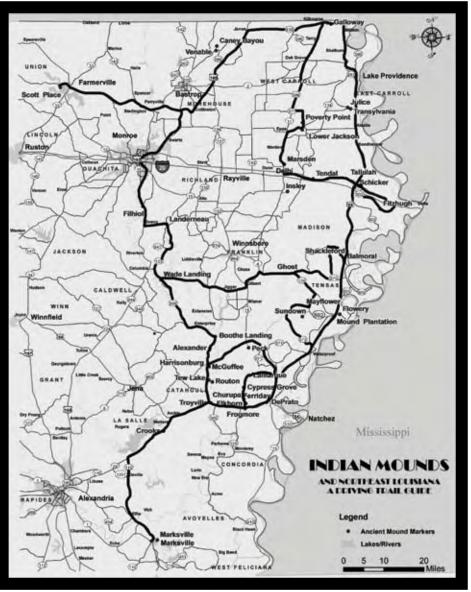
This map was developed by the Department of Culture, Recreation and Tourism to draw attention to the Native-American cultures that lived in Louisiana in prehistory. The map provides information on the earthen mounds the Native Americans built in the past. These sites are now linked in the Louisiana Ancient Mounds Trail. The trail includes 39 interpreted mound sites in over a dozen northeast and central Louisiana parishes. The mounds are on a mix of public-owned and private lands that are viewable from public-access highways. The trail is the perfect background to improve children's map-reading skills while learning about Louisiana's rich prehistory.

Materials

- Copy of "Ancient Mound Driving Trail" map
- Ruler

Activity

- 1. What does the legend tell you about this map?
- 2. In what directions do you have to drive if you want to complete the entire loop and see all the sites?
- 3. What are the main prehistoric sites you are visiting while driving the sites from its starting point at Marksville?
- 4. If you completed the larger loop of the driving trail, how many miles did you drive?
- 5. Which smaller loop can you do if you can only drive about 150 miles?
- 6. What are the different loop options, and which sites would you visit with these smaller loops?



Map modified after a map created by the Louisiana Division of Archaeology

If I lived in Louisiana 2000 years ago...

GLEs, Grade Levels and Subject Areas

3rd

SS: 11,50,51,55 **ELA:** 11,22-25,28-36,45-52

5th

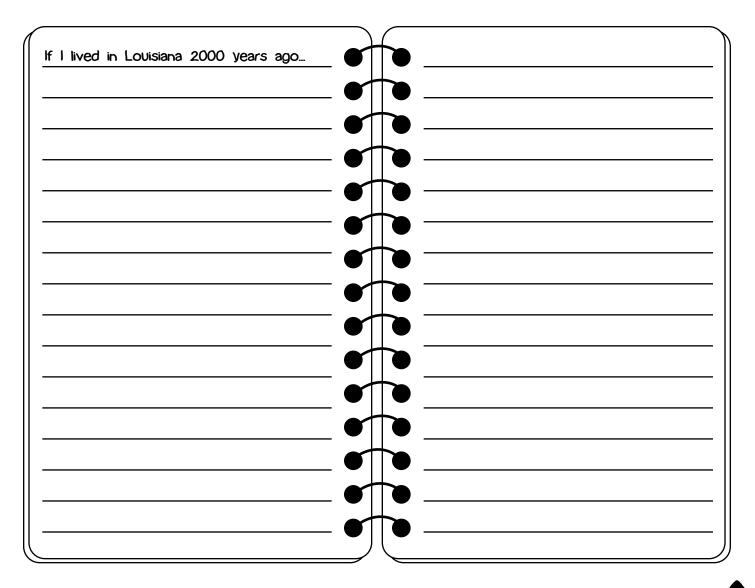
SS: 14,15,18,22 **ELA:** 4,5,9,12,18-22,26-31,42-48 **8th SS**: 2,11,62,75 **ELA**: 5,9,15-27,39-46

Purpose

Improving students writing skills while learning Louisiana's prehistory.

Activity

Students will do some research about Louisiana's prehistoric societies, like the society that created the Marksville mounds in Louisiana. Ask your students to write a story about what life might have been if they lived in Louisiana, let's say, 2000 years ago. Have students select one of the 39 sites along the driving trail. They should do some research on their site (possibly by group or individually) and each student, or group, would write a letter or essay with details describing what a day would have been like for them if they had lived that long ago. Ask students to think about clothing, cooking, fishing, hunting, housing, etc. Each group could do a presentation at the end of the activity with a poster summarizing what they found.



Building the LSU Indian Mounds

GLEs, Grade Levels and Subject Areas

3rd ss: 1,4,15,16,19,55 5th ss: 1,2,3,14,15 8th ss: 4

Purpose

Students will use topographic data to construct a three-dimensional model of the LSU mounds.

Materials

- Copy of LSU mound topographic map
- Topographic map model
- Cardboard
- Ruler
- Scissors
- Glue

Procedure

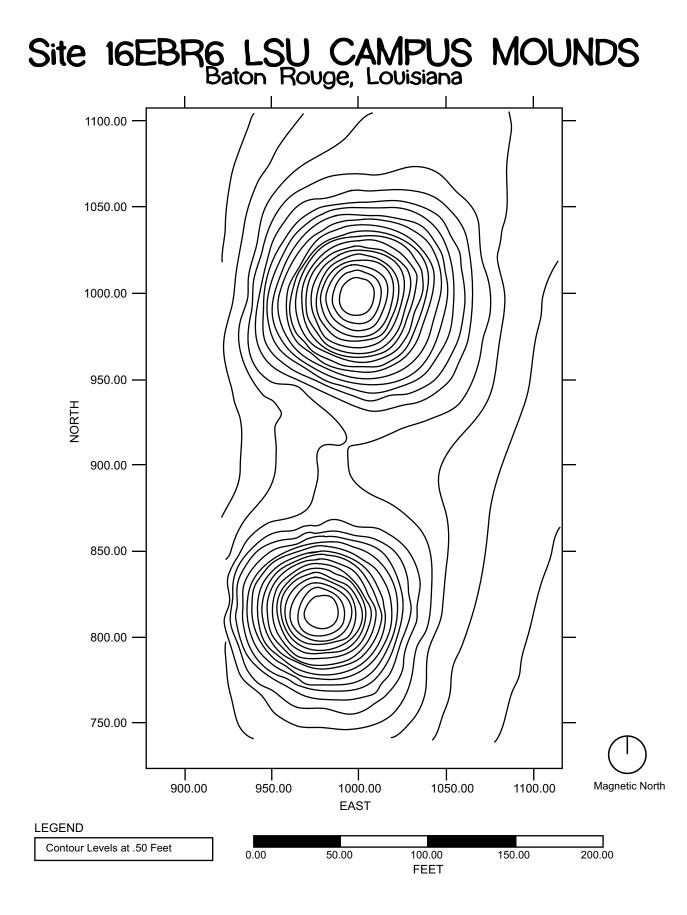
(Note: The current map has a contour interval of ½ foot. Teachers may decide to shorten the activity by having students make the model using a contour interval of 2 feet.)

- Make a model of the mounds the students will be creating ahead of time. This activity will run smoother if students can see the final product before they make their own.
- 2. Place the photocopy of the LSU mounds on top of the cardboard.
- 3. Students will trace and cut out the lowest elevation. Label the center of the piece of cardboard with a "large dot". This is the first level of the model. Place a toothpick in the center of the dot.
- 4. Students will repeat this procedure until they have carefully traced, cut out, and labeled each contour interval onto a separate piece of cardboard. Mark the center with a dot, it will help students align the layers.
- 5. They will then use the contour map as a guide to constructing the 3-D model. Take layer number 2 and glue it to the top of the first layer, using a toothpick to align each centers.
- 6. Repeat Step 5 with the rest of the layers until the model is completed.
- 7. Make sure to label North on the map.

Background

Topographic maps are representations on a flat surface of the contours of the Earth's surface drawn to scale. The scale expresses the relationship between the distance on the map and the true distance on the Earth's surface. For example, your map may have a scale of 1:24,000 where 1 inch on a map represents 24,000 inches on the Earth's surface. A contour line connects places on the map that have the same elevation. A contour interval is the difference in elevation between adjacent contour lines on a map. Contour intervals may be large (80-100 feet) for rugged terrains or small (10-20 feet) in areas of low relief like Louisiana.





Survey By: Heather McKillop and Terance Winemiller | Drawn by: Terance Winemiller | September 22,1996

Mound Stratigraphy

GLEs, Grade Levels and Subject Areas

3rd ss: 11,15,16,19,46,55

5th

SS: 14,21

8th SS: 62,65,70,75 ELA: 11 S: 1

Purpose

Students will gain a basic understanding of stratigraphy and why it is important in understanding an archaeological site.

Background

Stratigraphy is a very important concept to archaeologists and geologists alike. It is defined as the arrangement of layers (or strata) of soil below the surface including strata created by prehistoric cultures at archaeological sites. Based on basic geological principles, we know that the lowest layers, in most cases, are those that were deposited first. As archaeologists dig into the earth, they are actually digging through different layers of sediments. These layers each represent a different period of time and generally as you dig deeper, the further back in time you get. Therefore, examination of the sequence of layers can provide a story or timeline of use at the site.

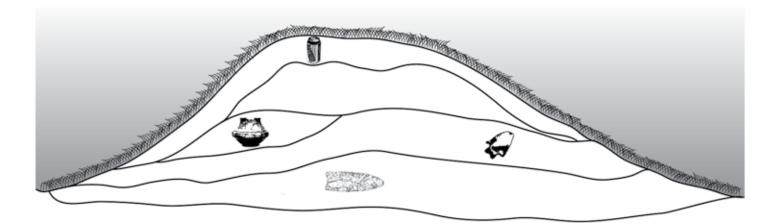
Materials

- Mound stratigraphy handout
- Colored pencils

Procedure

Below is a cross-section sketch of a mound.

- 1. Label the layers from oldest to youngest (i.e.; A=oldest).
- 2. Then describe the strata using color, thickness, and soil type.
- 3. Finally, identify and describe any artifacts present.
- 4. Construct a timeline organizing the artifacts from the oldest to the youngest.



Mapping an Archaeological Site: The 2x2 Grid System

GLEs, Grade Levels and Subject Areas

3rd

SS: 1,8,15

5th

SS: 1,2,3,15

8th ss: 2 s: 1

Purpose

Students will map a simulated excavation unit. They will measure and plot the location of artifacts within a grid.

Materials

- Site excavation handout
- Ruler
- Calculator
- Recovery forms (one for each artifact located at the site)

Procedure

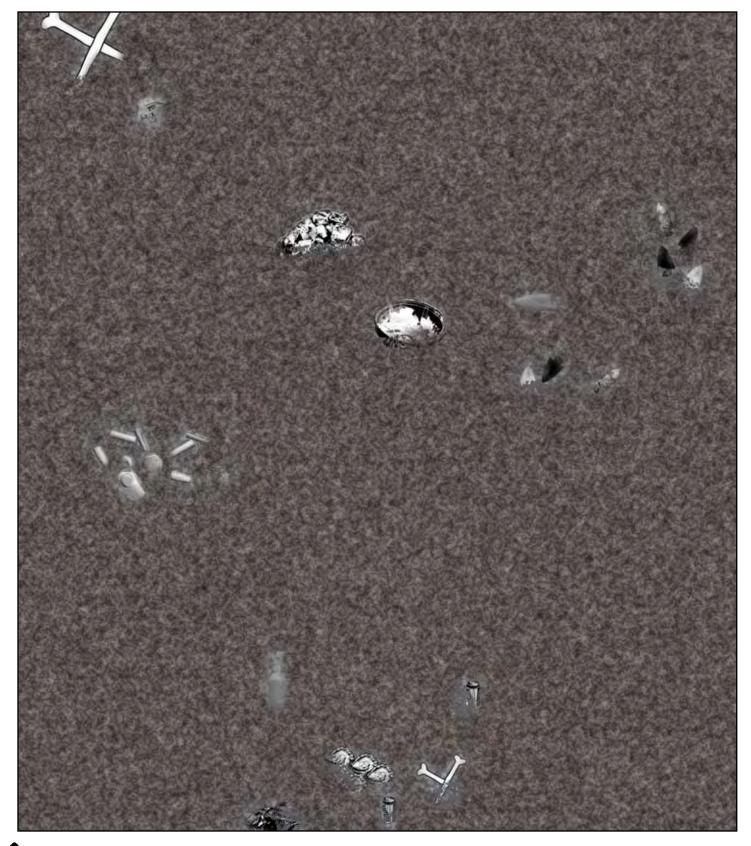
- Hand everyone a copy of the excavation site and key. Explain that the site is exactly as the archaeologist found it, hence, no artifacts have been moved from their original position.
- Explain to the students that one of the first things an archaeologist does when mapping a site is to divide the area into a grid. Commonly these squares are 2 x 2 meters each.
- 3. Select a scale to be used (example 10 cm = 1 m)
- 4. On the overhead, demonstrate how to determine your scale and then draw the grid over the excavation site map.
- 5. Label the X axis numerically (i.e, 1, 2, 3....) and the Y axis alphabetically (i.e, A, B, C,).
- 6. By using the grid map, students must record the date, position, size, and description of each artifact.

Background

An archaeological site is an area where people lived. Archaeologists often survey large tracts of land where nothing is known about cultural resources on the property. They begin by digging small (50x50 cm) shovel tests in regular interval (50 yards) in a grid system (a series of horizontal and vertical lines intersecting at regular intervals). Sites are defined where artifacts are found. The testing interval can be reduced along the site edges to determine the site boundary more precisely. Excavation unit location is based on the results of the shovel tests, one or two meter are commonly used. These units are usually designated by the grid coordinate of a corner of the unit (e.g., SW corner). Within each unit, features and artifacts can be plotted with reference to the same grid system used throughout the investigation (e.g., Square 25 North, 14 East).



Excavation Site Date: _____ Scale: ____



Date:		Sketch:
Site name:		
Unit #:	Depth:	
Description	of Artifact:	
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	rtifact Recov	very Form
Date:	rtifact Recov	very Form Sketch:
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Date:	rtifact Recov	
Date: Site name:	Depth:	
Date: Site name: Unit #:	Depth:	

Native American Place Names

GLEs, Grade Levels and Subject Areas

3rd ss: 15 ELA: 1,22-25,28-36,45-52 5th ss: 14,15,16,27

ELA: 1,4,18-22,26-31

8th SS: 6.11,75 ELA: 1,15-27,39-46

Purpose

Many of the names of towns and rivers in Louisiana and Mississippi are derived from Native American words. Unscramble the place names and then discover where they came from and what they mean.

WORD SCRAMBLE

YBOUA	
NOPALA	
SIPSSIPIMIS	
NTUOPCAALHO	
HLAUOCTAA	
QPINEMULEA	
TISI UAHM	
AAGLBOUS	

Clues: 1. Derives from the Choctaw word for river, stream, or lake, which is "bayuk" 2. Means "beloved lake", from the Choctaw words "hullo" and "okhata" 3. Means "cotton", it is the Choctaw word for plantation 4. Derives from Algonquian word for great water ("misi sipi") 5. Means persimmon, from the Mobilian word "piakimin" 6. Means Red Pole, The French termed the city "Baton Rouge" 7. Derives its name from the Choctaw words "pashi"- hair and "itula"- fall. 8. Derives from the Choctaw words "Bogue Lusa" meaning dark or murky waters.

Now that you figured out what these words are, write a story about Louisiana Indians, in which you use as many of these words as possible.

Description	

2

Artifact Classification

GLEs, Grade Levels and Subject Areas

3rd **SS:** 11,15,16 ELA: 45-52 5th

8th SS: 62,75

SS: 15,16,18,27

Purpose

Students will be introduced to object classification and description

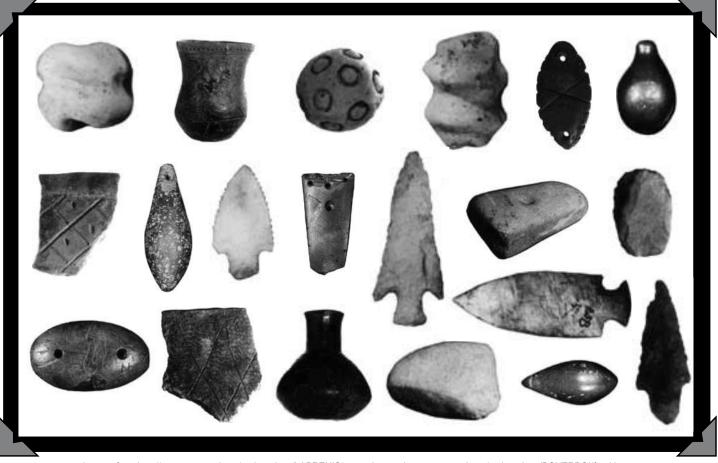
Procedures

Shown below are 20 different artifacts.

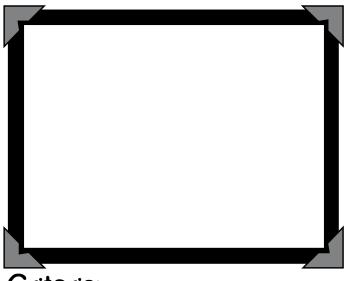
- 1. Decide criteria for dividing the artifacts into 4 categories.
- 2. In the square, draw an example of that category.
- 3. Then, write the criteria used to establish the category. Use as many criteria as needed. Some examples of criteria may include: color, artifact function, patterns, etc.

Background

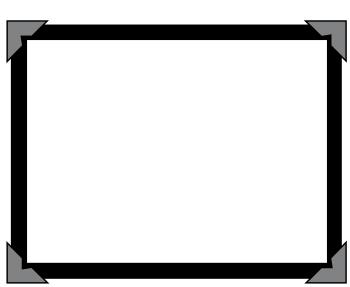
What is classification? You classify objects all the time. This is done by dividing groups of objects into smaller groups according to certain established criteria. For example, when you are organizing your CDs, you might sort them according to music type. Another set of criteria you might use to sort your CDs is how often you listen to them: everyday, once a week, or hardly ever. Classification systems allow achaeologists to look for patterns in artifact collections. These patterns may be used to assign them to specific categories that may in turn be used to identify specific cultures or cultural periods. You may be wondering if all archaeologists use the same system of classification. Not always. New ways of thinking and new understandings about a culture are often proposed by research, creating new knowledge, and different criteria for classifying artifacts.



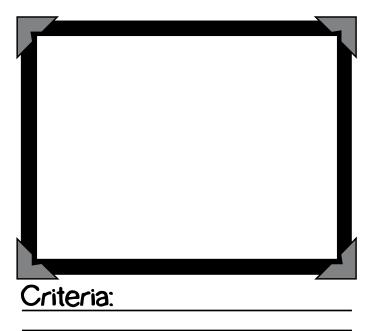
Images from http://www.crt.state.la.us/archaeology/LAPREHIS/marca.htm and www.crt.state.la.us/archaeology/POVERPOI/food.htm

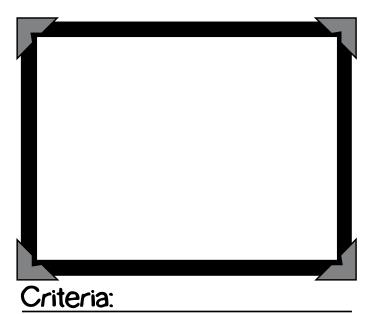


Criteria:



Criteria:





Interpreting Artifacts

GLEs, Grade Levels and Subject Areas

S: 1

3rd SS: 11,15,16,49 **ELA:** 45-52 **S**: 2,3

5th SS: 15,16,18,27 ELA: 14 S: 1,2,3 8th SS: 62,75

Purpose

The student will learn how to analyze modern "artifacts" from school sites and determine what these artifacts tell us about what was happening at the site (or site function). Students will also work in groups to determine site function.

Materials

- 4 labeled bags of "artifacts" from 4 different sites
- Colored pencils
- · Large map of school with sites marked
- School Artifacts data recording sheet

Background

In archaeological terms, an artifact is an object produced or shaped by human. Artifacts include jewelry, pottery, weapons, tools, or ornamentation, and is of archaeological or historical interest. Archaeologists use this "physical evidence" to learn about the past. Archaeologists ask questions such as: "What can we learn from these artifacts?" or "How do they explain what happened at the sites?" Imagine that your school has recently been designated a site of archaeological interest and it is your job to investigate the objects and determine what types of activities occurred there. In order to set the stage, ask students to remove two objects from their desks. Ask them to explain what the object is and what it could be used for. Write some of the answers on the board in the following format: Object, Physical Description, and Function. Discuss why these objects are found in the desk and how they can be used to determine that they came from a classroom.

Procedure

For teachers: The day before, collect objects from a designated area (such as playground, library, cafeteria, office), which provide evidence of the types of activities that take place there (e.g, plastic forks from cafeteria, staples from office). Note: Make sure the artifacts are safe trash, i.e, no food or glass. Place objects from each "site" in separate bags and label them site A, site B, site C, etc. Make copies of the school map and label where each site is located on the map.

- 1. Introduce to the class the concept that archaeologists use physical evidence to explain the past. Tell them they will be given a bag containing some physical evidence collected from a site.
- 2. Divide the students into 4 groups.
- 3. Distribute the bags of artifacts, one bag per group, and maps. Explain that in the bags they will find a handful of artifacts collected from a site marked on the map. Note: Do not tell them that the map given to them is a map of the school. This may give away the answer.
- 4. Explain to them that in their groups, the students will identify the objects in their bags, and draw and describe them on the recording sheet. They will then try to describe what activity took place at the site the objects were collected.
- 5. In the end, groups will present their results to the class, explaining what activities took place at their site. Together, they will have to provide a possible place (i.e., school) that could have the four sites they found (i.e., library + playground + cafeteria + office).

Function	
Physical description of object and drawing	
Object	

Louisiana Impressions and Decorations in Earthenware

GLEs, Grade Levels and Subject Areas

3rd SS: 11.15.16 ELA: 45-52 5th

8th SS: 62.75

SS: 15,16,18,27

Purpose

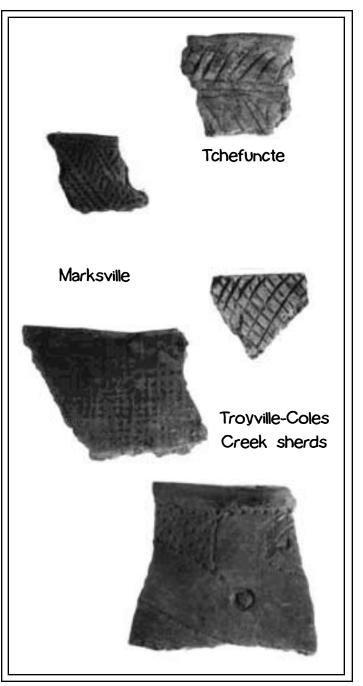
Students will look at the impressions and decorations made by cords, fabrics, shells, and various tools when decorating their own pottery. It will help them understand how archaeologists learn about ancient pottery decorating tools.

Materials

- Handful of different fabric textures and cord types (such as burlap or knit fabrics, rope, netting)
- Handful of different tools (such as combs, sticks, shells)
- Artist modeling clay
- Pencil
- Paper plate

Procedures

- 1. Allow students to work in small groups (3-4 students). Distribute several pieces of modeling clay to each group. Instruct them to knead the clay into small, flat disks.
- 2. In class, have an area with different pieces of prehistoric potsherds displayed that demonstrate fabric impressions. Also, have a variety of artifacts with examples of different pottery tools, cords, nets, and baskets set up.
- 3. Pass out examples of different modern tools to each group.
- 4. Have students press their clay disks firmly onto the fabrics to make impressions and/or punctations or mark with tools to make decorations. Have students note which tool they used for each disk and how they used the tool on the clay.
- 5. When they are done, put the disks on a named paper plate and collect them to dry overnight.
- 6. See if products designed within each group are more similar than designs between groups.



Images from http://www.crt.state.la.us/archaeology/LAPREHIS/marca.htm

Design your Own Artifact

GLEs, Grade Levels and Subject Areas

3rd ss: 16 5th ss: 15,16,18,27 8th ss: 62

Purpose

Students will carve their own artifact from pre-made playdough and then name and describe its function for other classmates.

This activity contains two steps, Part I: Making the playdough and Part II: Carving and describing the artifact. Prior to the "Artifact carving" activity, the teacher may do step 1 at home.

Part I - Make the Playdough

Materials:

For each group (3-4 students):

- 1 cup flour
- 1/2 cup salt
- 2 t. cream of tartar
- 2 small T. cooking oil
- 1 cup water
- food coloring (add to water)

Procedures:

- 1. Combine all six ingredients in a bowl.
- Pour into a large pot and cook over medium heat for ~3 minutes, stirring continuously.
- 3. When the consistency is like rubber, remove from heat, cool, and place in an airtight container.

Part II - Artifact Carving

Materials:

For each student:

- pre-made playdough
- plastic knife and spoon
- paper/plastic plate
- newspaper
- worksheet
- colored pencil

Procedures:

- Pass out a small portion of playdough, a plastic knife and spoon, and plastic/paper plate to each student.
- 2. Explain to them that they are designing their own artifact. Suggest that they may sketch an idea for their artifact on a piece of paper.
- Allow them to work on "modeling" their artifact. Direct them not to mold the playdough with their hands, but to use only the knife and spoon as tools.
- 4. When they are done carving the artifact, ask them to name and write a paragraph describing what the artifact is and what it is used for.
- 5. For the next class period, the student may present their artifact and have their classmates guess what it is.

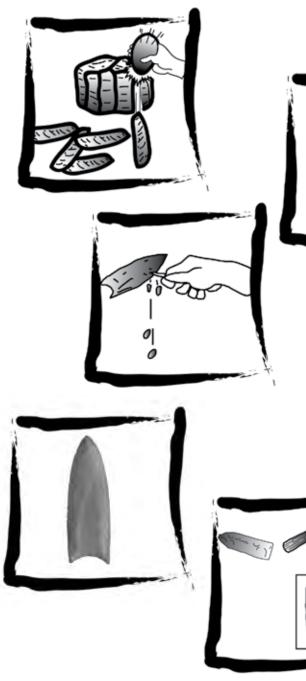


Flint Knapping: Native American Lithic Technology

GLEs, Grade Levels and Subject Areas

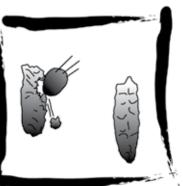
3rd ss: 11,16,20

5th ss: 15,18



Background

The making of lithic (stone) tools requires patience and a lot of skill. Flintknapping is the making of flaked stone tools by flaking stones using a harder stone or antler. The best rock material is somewhat brittle and relatively uniform in crystal structure. Some of the best rock types include chert and novaculite. Below is a set of pictures showing the flint knapping process. Place them in order from first to last. Then use the definitions to identify what tool is needed at each step, and the by-products.



FLUTE



Definitions Chert – a type of sedimentary stone, also known as flint.

Hammerstones – small roundish stones that shows battering scars from repeated use as a hammer to strike platforms to remove flakes.

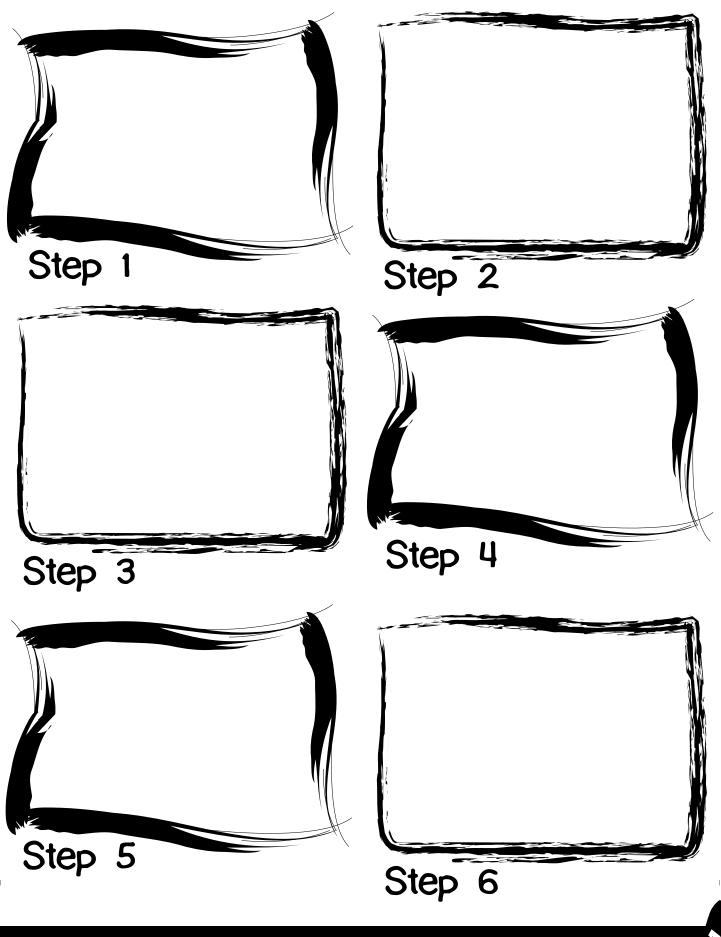
Billet – small piece of antler used to strike the edge of stone in order to shape it by removal of flakes.

Core – a piece of stone used to break off smaller pieces during tool manufacturing.

Flake – thin piece of broken stone removed from a larger stone during tool manufacturing. They have sharp edges and were sometimes used as cutting implements.

Lithic debris – also known as debitage, bits of stone left over from stone tool manufacturing. Flakes are little debris.

Projectile point – shaped rock attached to a spear, a dart (short spear), or an arrow, then projected by hand or with a bow through the air at prey (deer, beaver, etc.).



Wattle and Daub Construction

GLEs, Grade Levels and Subject Areas

3rd SS: 11,15,16,19 **ELA**: 45-52 **5th**

SS: 15,16,18,27

8th ss: 11,75

Purpose

Students will become familiar with the type of housing that Native Americans built in Louisiana using the natural resources available in the area.

Materials

- a collection of sticks about 12 inches or smaller that students could bring from their homes
- a collection of twist ties or string to latch sticks together
- mud or clay
- palmetto leaves or straw and Spanish moss
- square foam board or milk carton bottom for base
- compass

Procedure

- Use your compass to mark out a circle on your base. Just make sure the diameter fits inside the base board provided.
- 2. Begin building the vertical section of your hut by placing six branches on opposite sides of each other on the base.
- Connect these branches by carefully bending the opposite branches towards each other to form an arch. Tie them together with tie or string. Continue this step until all six branches are connected.
- 4. Now weave horizontal crosspieces around the sides of the hut. This is done by using a simple over and under weave to cover empty spaces. Tie these branches to the horizontal branches to keep them more secure. Mix clay with small pieces of Spanish moss.
- 5. Cover the sides of the hut with this mixture called "daub".
- Place straw or palmetto leaves on top of the hut to create the roof. Remember to leave a small hole on the roof, to allow smoke from the central fire in the house to escape.

Background

Students are very familiar with the Native American housing type called the tepee. Often they are not aware that in Louisiana, the natives lived in a very different type of house. There is an abundant amount of natural resources to choose from when constructing houses, namely, trees, palmettos, and thick mud. Louisiana natives took advantage of their surrounding resources and used them to construct waddle and daub huts.

Waddle and daub huts were constructed by building a flexible frame from branches. Additional branches were woven horizontally into the sides of the house. Then they were covered with a thick layer of mud and sometimes had a roof made of palmetto leaves.





2

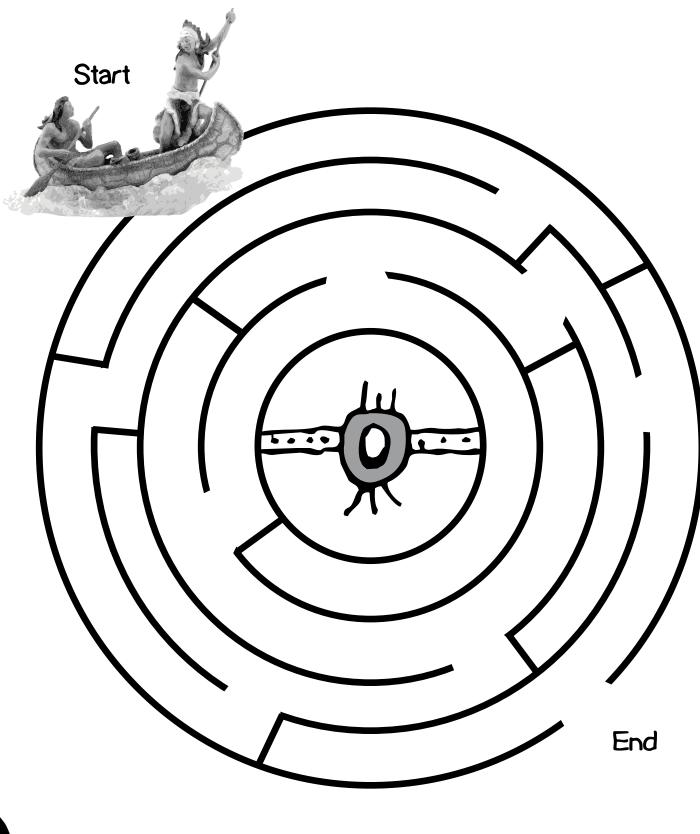
Objects: Then and Now

Below are several objects from the past and objects that we see in our everyday life. See if you can match the Native American artifacts with the modern objects that are used for similiar functions by drawing lines between the two similiar objects. How much have they changed?

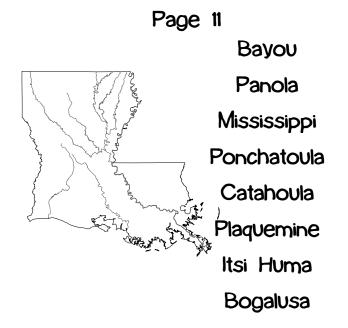


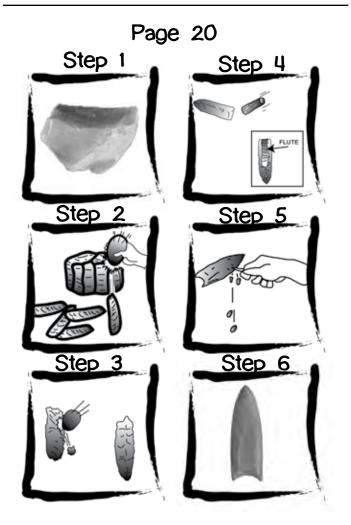
Bayou Maze

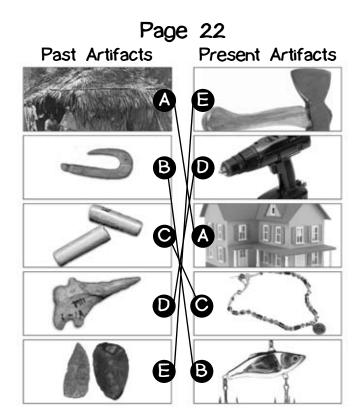
Help these Native Americans canoe their way through the Louisiana swamp!

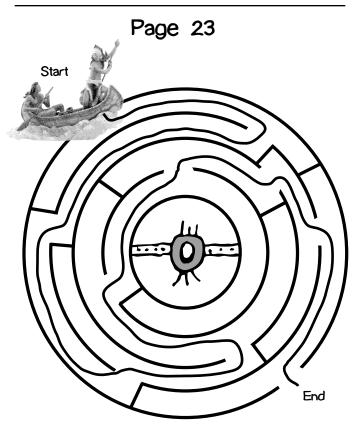


The Game Answers at last...









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