

Dr. Dirt's Archeology Lab Artifact Analysis

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Lesson Plan

Overview: Students simulate analyzing artifacts in an archeological lab by using real techniques that archeologists use. This hands-on cooperative group lesson uses measuring skills, drawing, and writing, brainstorming and helps students make inferences based on evidence.

Materials: Artifact baskets (see suggestions), Dr. Dirt's Archeology Lab Artifact Analysis Form (one per student), rulers, pencils, transparency of Analysis Form

Objectives:

- to analyze artifacts using math, writing, and drawing skills
- to use kinesthetic abilities
- to work cooperatively
- to observe carefully
- to make inferences based on evidence

Activity:

Step 1: Place students in cooperative groups of four. Clear desks except for pencils and rulers. Pass out Dr. Dirt's Archeology Lab Artifact Analysis form.

Step 2: Have students define "artifact" as something either made by human beings or modified by human beings (as in the case of stone tools, corn or dry beans which were grown by human beings).

Step 3: Use any small object as an example to demonstrate to students how to measure it with the ruler, draw a picture of it, and describe the material it is made of. Fill in the overhead transparency with this example. Then brainstorm with students on as many possible uses of the object you can. The more the better. Be creative. Explain that students will brainstorm in their small groups to fill in the possible uses for each artifact on the form.

Step 4: Pass out one basket per group of four students. Give them about 20 minutes, more or less, to analyze four objects from the basket. Each student takes one object at a time, measures it, draws it, describes it, etc., then puts that one back in the basket and selects another one. Students remain seated during this work.

Step 5: Have students turn analysis form over. Ask them to write the identification of the time period or the culture of the objects.

Step 6: Ask one spokesperson from each group to explain the objects in their baskets and identify the time period or culture. Have them explain any anomalies (such as stone tools in a basket with historic items—how did it get there?) Ask them to identify what objects remain the same (if any) in all three baskets and explain why.

Suggested Items for Artifact Baskets

Most of these items are easy to find around the house or at garage sales. Put a variety of objects in natural woven baskets. Put a piece of cloth, leather or fur in the bottom of the basket first, then the smaller objects. Feel free to add or substitute appropriate items as you wish.

Artifacts can be grouped several ways in the baskets.

1. Artifacts can be grouped by time period, as indicated on the lists of suggested items. When students analyze objects this way, they learn to identify artifacts from three general time periods (pre-historic, historic, and contemporary).
2. Baskets can be filled with random objects from across time periods. In this case, part of the analysis also involves placing each object in its correct time period.
3. A few items from the prehistoric time period can be placed in historic or contemporary baskets, especially stone tools. When students analyze this type of assemblage (or group), they discover that certain things (like stone tools) can still be found today or were still around during historic times.
4. Artifacts can be sorted into baskets according to culture. For example, you could make a prehistoric Caddo basket, Karankawa basket, Plains Indian basket, Trans-Pecos basket, etc. Students would then try to infer the culture of the people who made the artifacts based on their analysis.
5. Objects such as dry corn (microwave popcorn is the modern version), dry beans, leather, woven mats, and baskets have been used across all three general time periods. Make sure these objects are in all the baskets. When students are analyzing objects by time period, make sure they notice what stays the same as well as what is different. Ask them to write about what changes over time, what does not, and why.

Prehistoric Texas

Stone tool replicas (often available at museum gift shops)
Rabbit or deer skin
Clean, dry turkey or rabbit bones
Dry yucca or sotol leaves for weaving
Feather from a wild bird
Leather strip
Shell, especially one with a hole in it
Turtle shell rattle
Dry gourd rattle
Dry gourd drinking cup
Pieces of flint (watch for sharp edges)
Dry corn (small, native ears if possible--for Caddos and Pueblo only)
Dry beans (Anazasi beans if possible--for Caddos and Pueblo only)
Mat woven from leaves (old placemats might work for this if they are natural colors only)
Pieces of pottery (see Caddo exhibit and others for examples)
Acorns, native walnuts or pecans (where appropriate)
Hand-held grinding stone (mano)
Seed beads
Others of your choice

Historic Texas

Small objects made of iron, brass, or pewter
Pieces of glazed pottery (plain white, blue and white, or see XX for examples)
Pieces of unglazed, painted Mexican pottery
Tin drinking cup
Dry gourd drinking cup
Old iron nail
Calico, linen, velvet or wool cloth
Satin ribbon
Bone or shell buttons
Marbles
Replicas or copies of old documents
Replicas of old money
Glass beads
Small chain for jewelry
Cotton string
Wool carding combs
Wool yarn
Dry pinto beans
Dry corn
Leather
Rag doll
Corn-cob doll
Old metal spoon
Others of your choice

Contemporary Texas

Crushed aluminum can

Metal bottle cap

Old compact disk

Items made of plastic (such as old credit card, small toys, plastic spoon, bottle caps etc.)

Nylon cloth

Money

Replicas of documents (such as TV schedule, newspaper with date, etc.)

Old battery (be sure it isn't leaking)

Plastic cup

Ball-point pen

Old stretch stockings (cut a piece from the leg)

Paper clip

Nylon zipper

Plastic button

Microwave popcorn packet

Dry beans

Plastic jewelry

Piece of plastic wrap

Piece of tinfoil

Others of your choice

Your Name _____

Date _____



Dr. Dirt's Archeology Lab Artifact Analysis Form

Artifact	Material	Size	Drawing	Possible Uses
1.				
2.				
3.				
4.				