



Coming to America

Activity 2: Grades 5-8

Dating Artifacts

Until a few years ago, most scientists accepted the theory that America's first inhabitants arrived across the Bering Strait about 12,000 years ago. Today, that view is being challenged. Evidence found at several dig sites suggest that humans were present in the Americas at least 4,000 years earlier! Support for this idea comes from radiocarbon dating. It is also inferred from uncovered artifacts dating back 12,000 years.

This activity page will offer:

- An introduction to interpreting an archeological site
- A hands-on experience in understanding layering of artifacts
- The opportunity to create artifact models associated with prehistoric communities

Digging Into the Past

Archeological sites often contain both stone artifacts and remains of living things. To best infer the age of these pieces, scientists utilize radiocarbon techniques. They also depend on the horizontal position of the artifact. In this activity, you'll explore how the depth of an object can offer clues to its relative burial time.

Materials

- Clean sand or fine potting soil
- Shoebox
- Modeling clay

Procedure

1. Work with a partner. Use modeling clay to shape five kinds of "artifacts" that you'll bury beneath the sand. These artifacts should include miniature models of bones, pottery pieces and an assortment of

- primitive tools.
2. Make a chart that assigns each type of artifact to a different period in which humans occupied your model site. Each of the five periods should last 3,000 years.
 3. Place your oldest artifacts on the bottom of a shoebox. Cover the artifacts with a 1- inch layer of sand.
 4. Place the next oldest set of artifacts on the exposed sand surface. Cover these objects with another 1-inch layer of sand.
 5. Continue adding and burying objects until you've arrived at the present time.
 6. Exchange your dig site with another team.
 7. Carefully excavate the other team's site. Note and record the different artifacts that you uncover. Make sure to keep a record of their relative position and use this to help create a "history" of the site.

Questions

1. What can the placement of an object within an archeological dig tell us about its relative age?
2. What does the 1-inch uniform thickness of sand layers suggest?
3. Is it possible for an older object to be found atop a younger object? Explain.

Critical History

From what you uncovered, create a history for this site that describes its usage over time.

Know Your Geography

Below are several well known archeological sites that offer evidence of prehistoric human habitation. Use Internet or print resources to research each of these areas. Then, use a United States map to uncover their locations:

- Cactus Hill, Virginia
- Meadowcroft, Pennsylvania
- Topper, South Carolina
- Clovis, New Mexico
- Kennewick, Washington
- Santa Rosa Island, California

Prehistoric Interview

Work in groups of three. Imagine that one of you is a modern TV personality who hosts a sensationalist and sometimes volatile interview show. One of your guests is a prehistoric human who lived at the Clovis site. The other is a prehistoric human who lived 4,000 years earlier at the Topper, South Carolina site. Working together, develop a script for a TV show in which the personalities compete for the title of first American. Although the story will have elements of humor, it should communicate scientific findings and offer insight into the controversy unearthed by these recent dig site discoveries.

Made a Model

This drawing illustrates a Clovis point. As you have learned, a good deal of American prehistory has been based on the significance of this tool. The surface of the point has a flaked appearance, produced as pieces of this flat rock (chert) were chipped away. Use modeling clay to shape a representation of this important archeological find.



Web Connection

Who Were the First Americans?

[http://www.sciam.com/article.cfm?](http://www.sciam.com/article.cfm?articleID=000333F5-D417-1C73-9B81809EC588EF21&pageNumber=3&catID=2)

[articleID=000333F5-D417-1C73-](http://www.sciam.com/article.cfm?articleID=000333F5-D417-1C73-9B81809EC588EF21&pageNumber=3&catID=2)

[9B81809EC588EF21&pageNumber=3&catID=2](http://www.sciam.com/article.cfm?articleID=000333F5-D417-1C73-9B81809EC588EF21&pageNumber=3&catID=2)

This is the online version of the article "Who Were the First Americans?," published in the September 2000 issue of Scientific American.

Timing is Everything

<http://archaeology.about.com/cs/datingtechniques/a/timing.htm>

This site offers an overview of archeological dating techniques.

Paleoamerican Origins

http://www.jqjacobs.net/anthro/paleoamerican_origins.html

The site offers a scholarly analysis of paleoamerican origins

Academic Advisors for this Guide:

Suzanne Panico, Science Teacher Mentor, Cambridge Public Schools, Cambridge, MA

Anne E. Jones, Science Department, Wayland Middle School, Wayland, MA

Gary Pinkall, Middle School Science Teacher, Great Bend Public Schools, Great Bend, KS

Cam Bennet Physics/Math Instructor Dauphin Regional Comprehensive Secondary School

Dauphin, MB Canada



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Activity 1: Grades 5-8

Building an Arctic Boat

Questions

1. What can the placement of an object within an archeological dig tell us about its relative age?
(Most likely, the deeper it is, the older it is.)
2. What does the 1-inch uniform thickness of sand layers suggest?
(Deposition of sediments remains at a constant rate.)
3. Is it possible for an older object to be found atop a younger object? Explain.
(Yes, forces in the Earth and human activity can alter the sequence of the layers.)