

## **Peanut Butter and Jelly Archaeology**

Adapted from *Beyond Artifacts: Teaching Archaeology in the Classroom* produced by the Florida Public Archaeology Network

**Time:** 60 minutes for activity and discussion

### **SC Education Standards:**

- Science: 3.E.4B.2-4; 5.E.3B.1-4
- Social Studies: 3-1.3; 4-1.2; 8-1.1

### **Materials**

For each student (or group):

- 3 slices of bread
- 3 tablespoons of jam or jelly
- 2 tablespoons of peanut butter
- Raisins
- Crushed oreos
- Broken candy pieces
- 2 paper plates
- Plastic knife
- Plastic spoon
- Large clear straw
- Napkins

*(see helpful hints for ingredient substitutions)*

Students will examine the principle of stratigraphy and site formation by creating an edible habitation site.

### **Introduction**

Archaeologists rely heavily on the principle of stratigraphy. Stratigraphy is defined as the arrangement of material in layers. As layers are deposited, the oldest is on the bottom and the youngest on the top. Archaeologists can estimate the relative age of artifacts by examining which layers they come from.

Habitation sites are places where people once lived. When archaeologists uncover these sites, they're known as archaeological sites. Prehistoric habitation sites may be identified by post holes (stains in the ground where wooden posts once stood), middens (trash heaps), and stone tools. Historic habitation sites might also have post holes and middens, but will also contain more modern materials such as glass or metal.

When archaeologists find an area they think was once a habitation site they will do core samples or test pits to determine the extent of the site. Testing the site will also tell

archaeologists where there are concentrations of artifacts or features. Archaeologists will then open larger units in these artifact-rich areas.

### **Activity Steps**

Tell students they are going to create an ancient habitation site, bury it, excavate it, and then eat it! You can use the following narrative to tell students what is happening.

1. Here is an open field near a river in South Carolina (lay down a slice of bread)
2. A large flood leaves a layer of mud on the field (spread the peanut butter)
3. Shortly after the flood, a group of Archaic Native Americans camp in the area. It can get pretty cold at night so they build a fire. Their fire leaves behind charcoal and rocks that crack from the heat (have students slice raisins in half and arrange them in a circle on the sandwich. Fill the circle with crushed Oreos)
4. The Archaic people eventually depart and through time a layer of dirt forms over the campsite (lay down another slice of bread)
5. Eventually a Woodland group camps on the same field. These people build shelters with wooden posts driven deep into the ground. (Have students gently cut small indentations or holes in the last slice of bread. These represent the holes dug to hold the wooden posts)
6. The Woodland people also made a lot of pottery, but some of the pottery was broken (have students dig two small holes in the top layer of bread – one on each side – and place broken candies in these holes)
7. After the Woodland people leave the river floods over the field again. (students can spread jelly which may cause the broken candy “pottery” to move – that’s okay this can also happen on real archaeology sites!)
8. Through time, other layers of dirt are laid down until the present layer covers the site (students put on the top layer of bread)
9. Today, archaeologists suspect this field was a prehistoric habitation site and conduct random core samples and dig test pits to see what is beneath the surface (have students push the large straws randomly through their sandwich. If they find a candy piece or Oreo dust they may have found a habitation site)
10. The archaeologists decide to excavate a few units at the site (have students cut a square into the sandwich and remove it layer by layer. If they find anything in their layers they have found evidence of habitation.
11. Students can eat their site (all together or layer by layer) after the discussion

### **Helpful Hints:**

- The list of ingredients is only a suggestion. Substitutions can be made – chocolate chips instead of raisins, cake frosting for peanut butter (in case of peanut allergies), angel food cake or shortcake instead of bread. If you want the “dirt” to look authentic, try using chocolate cake or brownies!
- To keep costs minimal, you may suggest that students bring their own ingredients.

- The cultural names and periods used in story can be substituted for whatever cultural period you are currently studying (i.e. tell the story using European explorers, Mesopotamian farmers, etc.)

Have the class discuss their habitation/archaeology site. Did they find anything in their core tests? Did they find anything once they excavated a unit? Have students identify the oldest layer. Why is it on the bottom? Which of their “artifacts” are older?

Then ask students if they could read the layers if they put the sandwich in a blender. Explain that this is what happens if a habitation site is disturbed through plowing, looting, or bulldozing. Explain that sites can also be affected by natural processes, such as the jelly flood moving the candy pottery pieces. To fully excavate a site, students would have to remove each layer one at a time until they reached the plate. Would they have a sandwich then? This helps illustrate that excavation is a destructive process.

.