Grade: 4th – Adult  
Time: 1 – 1 ½ hour  
Season: All

Looking into the Past (Archaeology)

National Science Teaching Standards  
A. Science as INQUIRY  
C. LIFE Science  
E. Science TECHNOLOGY  
F. Science in PERSONAL and SOCIAL PERSPECTIVE  
G. HISTORY and NATURE of Science

Background Information:  
Archaeology is the study of ancient and recent human past through material remains. Keep in mind that archaeology is NOT paleontology. Most archaeologists do find dinosaurs interesting but their professional studies involving studying ancient humans. Archaeologists often work closely with anthropologists who study the relationships and societies developed by these ancient humans. To be a successful archaeologist (and scientist) one must be curious, ask good questions, and then work to answer those questions. They are detectives of the past! The search for solutions requires understanding of the problems of the past and how our ancestors might have approached these same problems. Studying the past leads to a better understanding of who we are today and where we might be heading in the future.

Here are the important points:  
*Is it important for you to know about your past? why or why not?  
*Is it important to know about the past of humans in general? why or why not?  
What can we learn about the past?  
*Focus on what you find out (knowledge), not necessarily what is being found (objects)  
-What questions do you have? Did you answer them?  
-Why study the past? How do we learn about the past?  
*Curiosity about our ancestors…everyone searches for explanation and meaning.  
*What do you do if you have a question about the past? Say you want to know who lived in your town in 1935? Where would you look?  
You may want to examine an encyclopedia, a local website, the journal of a local historian, your town hall records.  
But what if there was no written language? Where would you get your information? Learning about your town is one thing, but imagine trying to learn about an entirely new culture or group of people that may not even exist in the modern world today. How would you know what a culture or a group of people were like?  
It is important to realize that archaeology can be a very broad subject.
Archaeologists can choose to specialize in events that happened 100, 3000, or 30,000 years ago! To add to the challenges of studying events of the past, humans haven’t always had written words to tell their history with. Prehistoric is anything that occurred before written documentation began and that is the specialty of archaeology that is going to be dealt with in this lesson.

Two more important vocabulary words are site and artifact. A site is any place where physical remains of human activity exist. Physical remains can include bones, pottery, tools etc. An artifact is an object that has been made and/or used by people. Finally, context is an important term in archaeology. It states that the artifact can tell more of its story when the location where it was found and the artifacts it was found with are also taken into account. Artifacts tell different stories depending on where they are found. For example, an indented rock found near bones with a few arrowheads nearby tells a very different story from an indented rock found within a fire ring inside a foundation.

**Objective:**
The students will become archaeologists as they look at artifacts beginning with photos and leading up to actual artifacts while learning to ask the right questions to discover as much as possible.

**Pre-Activity:**
- Check out the Office of the State Archaeologists website at [www.uiowa.edu/~osa/](http://www.uiowa.edu/~osa/) for an excellent overview of the basics of archaeology.
- [http://www.uiowa.edu/~osa/edu/edu.htm](http://www.uiowa.edu/~osa/edu/edu.htm) is the link to OSA’s link for educational resources including many external link containing online games and activities involving archaeology.
- Have students research archaeological sites in Iowa.

**Equipment:**
- Archaeology: Uncovering the Past powerpoint
- artifact box
- “Your Archaeological Field Journal” handout for each student
- pen or pencil for each student

Note: do not pass out the handout until the second half of the lesson as it will give away some of the answers during your discussion!

Artifact Inquiry Questions (for the instructor):
1. What does it look like?
   - color, size, shape, material (rock, bone, wood, metal, fabric)
2. Where was it found?
   - climate, environment type, surrounding soil or rock, shallow or deep?
3. What could it have been used for?
4. How old could it be?
   - condition (eroded, rusty, decayed, fragility)
   - material (how fast would it decay given the environment?)
   - best estimation of age
   - 1-10, 10-20, 21-50, 51-75, 76-100, 101-200, 201-500, 501-1000, over 1000, 2000, 3000
5. What do you think the artifact is?
Procedure:

1. Begin with a discussion on archaeology, what archaeologists do, and the vocab. that the students will need for the lesson (slide 2 of the powerpoint).
2. Slide 3 will turn the discussion towards the topic of asking the right questions. Ask students what they would look for when beginning to identify an object (size, shape, color, material etc). Follow through with the rest of the Artifact Inquiry Questions.
3. The rest of the slides involve a photo of an artifact followed by a photo explaining its use. Spend some time of the artifact photo and lead a discussion involving students making hypothesis about what it could be (and why).
4. Move on the artifact box. Pass out artifacts 1, 2 and 3 (one by one). Discuss each being sure to focus on the fact that even the smallest detail matters! This is where you can discuss the idea of artifact context as well.
5. Pass out the field journal handout and distribute the remaining artifacts to each student (for a large class work in partners or groups with one handout/artifact per group). Have them fill out the journal. This is a test of their ability to observe details and use their creativity to solve the mystery. Have each person (or group) present their findings.

Note: Is the mystery always solved with all the answers perfectly fitting into place? Nope! Archaeology, like a lot of science disciplines, is often about proving your hypothesis wrong but not necessarily finding the perfect, correct answer. There may not even be a perfectly correct answer without the invention of a time machine!

Post-Activity

- OSA’s Education and Outreach program has Travelling Teaching Trunks that can be checked out for long term use by educators. These trunks provide enough resources for an entire unit on various periods in Iowa’s history. Information regarding these trunks (including checkout procedures) can be found here: http://www.uiowa.edu/~osa/learn/teachers/Time%20Capsule%20Brochure.pdf