



# Digging Detectives

## Program Purpose:

By exploring an archeological site, students will be introduced to using various archeological methods and techniques to help them understand some of the aspects of past life and culture.

## Length of Program:

1 hour 15 minutes  
3 hours if combined with 2 hour "Dell House Dig" lesson.

## Age:

Grades 4<sup>th</sup> – 7<sup>th</sup>

## Maximum Number of Participants:

16 students (only 10-12 students if you add, "Dell House Dig")

## Objectives:

After completion of all activities, students will be able to:

- Understand what an archeologist can learn from an artifact.
- Demonstrate basic procedures for archeological excavations.
- Be able to describe several uses of natural resources during one period of Wisconsin's history.

## Preparation:

Before the class arrives:

- Check to see that a total 16 of 2ftx2ft quadrangles are set up with string.
- There will be a total of 2 levels of excavation at each site. The top level will represent the most recent history and the bottom level will represent the oldest history. Each level of history will be about 6 inches to no more than 12 inches deep.
- Check to see that there are the correct number of questions in each envelope for the photo exploration in the lodge
- Set out the wheelbarrows and buckets out by the dig site

## Materials:

*\*Found in Archery Room in Craft building*

- 8 wire mesh frames
- 2 wheel barrels
- 16 archeology spades
- 50 artifact data labels
- 16, 1 inch or 3 inch brushes
- 16 pencils

- 16 Rulers
- 16 Carpet squares
- 50 artifact flags
- 8 envelopes of photo questions
- 1 sheet of artifact questions
- Portable dry erase board

## Basic Outline:

- I. Introduction- Archeology (5 min.)
- II. Photo Artifact Exploration (20 min.)
- III. Explanation of quadrangle setup (5 min.)
- IV. Digging and Recording Data (30 min.)
- V. Show & Discuss (10 min.)
- VI. Clean up. (5 min.)

## Introduction- Archeology:

Archeology is a set of methods & techniques used to recover and analyze artifacts in order to understand past human life and culture. Artifacts are sources of information that can be used to analyze and understand past cultures. Some examples of artifacts would be buildings, tools, jewelry, utensils, pottery, weapons & oral history.

All of the artifacts that are used are at least 100 years old. They should all be treated with respect. None of the artifacts can be taken home.

## Photo Artifact Exploration:

Old photos can be used as artifacts. The photo's around the room were taken by H.H. Bennett and are about 140 years old.

Divide students into eight teams of two. Give each team an envelope with eight challenge questions. Have them read their first challenge question to their teammate. Tell them their challenge is to use the photo artifacts around the room to answer the questions. They are instructed to bring the answer to the class leader. If they find the right answer they can take another challenge question out of the envelope and try to find the photo artifact that will answer that question. They can continue this procedure until they have found all the artifacts that time will allow.

## Quadrangle Explanation:

Take students to the archeological site. On the dry erase board show them the numbering system for the marked off quadrangles with N for north, E for east, W for west, and S for south. Quadrangles are numbered from left to right. For example the northern side of the archeological site would read from left to right N1, N2, N3, N4, N5. A

student should be asked to find a quadrangle site such as W2 or S1 and stand by that site so that everyone knows how to use the system.

Make sure that students are aware that they are not to walk on the strings or in the quadrangles except for quadrangles N3, E3, S3, & W3. Tell students that the soil in these quadrangles has been removed for twelve inches so it is safe to walk in this area.

Remind students that any artifacts that are found should be treated with respect. They cannot be taken home because they will need to be found by the next group of students!

**Site Excavation:**

Each student is assigned a quadrangle and given a spade, a ruler, a brush, 5 artifacts marking flags, a pail, and access to a sifting screen.

Demonstrate how to use each piece of equipment.

1. Ruler spade is put into the soil one inch.
2. Probe the entire quadrangle with the spade for one inch.
3. If nothing is found with the probing technique, students carefully remove the one-inch of soil and put it into the bucket.
4. If an object is touched with the spade use a brush to expose the object.
5. When their bucket is getting full of soil, they need to screen the soil through the wire mesh, over the wheelbarrows. (demonstrate this technique)

The students should be told that because some of the artifacts may be smaller than a half inch the following procedure should be followed when they have time and access to sifting screen: take their bucket over to the sifting screen and sift the bucket into a wheel barrel.

Artifacts found in the sifting screen should be marked by a flag at the approximate location of where they were found. Any non-artifact material found in the sifter should be put in the wheel barrel.

**Finding an Artifact:**

Demonstrate what to do when they find an artifact.

Once a student finds an artifact they need to mark the artifact with a flag.

1. They should measure the depth of the object from the quadrangle string to the object.
2. If the object is found less than six inches one color flag should be used and if it is over six inches deep the other colored flag should be used. Students should be asked where the older objects are going to be found. They should also be told that is why they are using the two different colored flags to indicate difference in depth and age.

3. After a flag is placed next to an object, an artifact data tag should be filled out by the student and placed on the end of an artifact flag. Student needs to make sure the correct flag is used for the depth (above or below six inches) of where the artifact is found.
4. When a student needs to dig deeper and an artifact is in the way the student needs to tell the class leader. The class leader decides if the artifact can be temporarily moved. If the artifact is temporarily moved the flag with the artifact data sheet remains in the ground to remind the student where the artifact needs to be returned.
5. Once each student has removed at least six inches of history and marked and labeled they are ready to analyze their data.

\*It seems to work well having the students place the artifacts found from their team on the table under the shelter.

**Assemble Data- Show and Discuss:**

Each student should report on what he or she found, where they found it and what natural object was used to make the artifact.

Ask the students what information did the artifacts tell them about the life and culture of the people who lived at the site 140 years ago.

If the students can't give some answers or if they have only been able to provide a few answers, the class leader should read artifact questions from the artifact question sheet. With the information that the students have gathered from the artifacts they should be able to answer the questions and have some knowledge of life and culture of the people who inhabited the site 140 years ago.

**Clean up:**

It is very crucial to have the artifacts put back well so that the next class will have a good dig! Make sure you leave enough time to do this step well.

- Have the students take the artifacts found from their site back to their quadrant.
- Make sure the students bury them just the way they found them, with the older artifacts from the bottom.
- Have all the dirt that was scooped out of their quadrant put back in, including dirt from the wheelbarrows.
- Put marking flags back into the bucket and recycle the marking tags.

**References:**

State Historical Society of Wisconsin, [Wisconsin Archeology](#)

## **Appendix A**

### **Questions**

Was there a building on the site?

What materials were used for a building?

What happened to the building?

What happened to most of the boards?

Was the building heated?

Were there any windows? Where?

Were the nails modern or old. How can we tell?

Were there any machines? How big were the machines?  
Where were the machines located?

Were there animals at the site? How did they die? Were  
any animals used for food?

Were any liquids kept at the site? What were the liquids  
kept in? What were the uses of the liquids?

Any cooking at the site? What was used?

Were the people wealthy? Presence of china or plates  
might indicate economic status.

Any weapons?

Where were things located in the building?