

## Lesson 5: *What is the Evidence?*

### THE LESSON AT A GLANCE

Students:

- Observe and record data on the three types of artifacts found at the site
- Analyze the data, and record their findings on a class chart
- Develop a preliminary hypothesis about the identity of the site
- Record new questions

### MATERIALS

Journals

Found Objects: 3 coins, 1 doll's head and torso, 11 nails

1 Set of photocards of the coins and the doll

1 Aerial View of Green Farm

\*2 Charts and markers

\*Rulers and tape measures

Hand lenses

\*TEACHER PROVIDES THESE ITEMS

### GETTING READY

1. Prepare two charts for the discussion. Label one "Evidence" and the other "Questions."
2. Divide the class into small work teams.

### TEACHER'S NOTE

*There are only 15 Found Objects, and although this helps to preserve the authentic flavor of the dig, I knew that that it would take a lot of time for individual students to examine and record data on each artifact. I was worried about lag time. So we decided on a jigsaw approach. For example, three teams became the experts on the coins (one coin each); one on the doll; eleven on the nails, etc. so that we had 15 teams of experts to report on their findings. As they reported, I distributed the photocards of each artifact and also circulated the actual artifact so that the rest of the class had a close-up look too. Later I put all of the artifacts and several hand lenses out on a table for students to observe independently.*

## THE INVESTIGATION

1. Distribute the hand lenses and rulers and the artifacts that the family has collected from the pasture. Give students time to examine the artifacts closely with the hand lenses. Encourage them to measure the artifacts, too.

You may also want to distribute the photocards to groups of students at this time so that everyone has an idea of how all the artifacts look.



2. In their journals, have students draw and label their artifacts, and record their observations in writing. Have them also record any questions they have about the objects.



Detail of a student's journal entry

Observe and record data on artifacts.

### JOURNAL PROMPTS


Record your observations on the artifacts. Be sure to include:

- Labeled drawings with measurements
- Written observations
- New questions

### EVALUATING STUDENT PROGRESS

Review students' journal entries. Check that students have included:

- Labeled drawings of the artifacts with measurements.
- Written observations that are clear, complete, and detailed.
- Questions that arose as they were examining the artifacts.



Analyze the data.



DISCUSSION

3. Focus attention on the “Evidence” chart and ask students to analyze each of the three different types of artifacts in turn. Record their observations on the chart. Use some of these prompts:

### Evidence from the artifacts

- What material is each object made of? What kinds of materials survive over time? What kinds decompose quickly?
- Can you determine the age of any of the artifacts? What is the evidence? What can we assume about the dates on the coins? Are the dates clues to the age of the other artifacts?
- What information do the nails provide? What are nails used for today? What kind of materials do they fasten together?
- What does the head and torso tell you about the people who might have used the site?

### Evidence from the site

- Do you think there was something here before the site became a pasture? Why or why not? Give reasons based on evidence.
- Do you think the site is related to the farmhouse? Why or why not?
- What do you think the stone slabs might be?

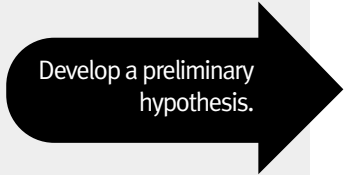
### Thinking It Through

4. What do the different pieces of information suggest when you look at them all together? Think about the site’s location, the three kinds of artifacts, the stone slabs and their pattern, and the clues to the age of the site.



JOURNAL

Mention that the class has very little evidence to work with so far, but that it would be interesting for students to begin developing their own hypotheses about what might have been on the site. Ask students to record their hypotheses in their journals. Then suggest that as they uncover more evidence, they may be able to prove, disprove, or change their ideas. Note that scientists do this all the time.



Develop a preliminary hypothesis.

### JOURNAL PROMPTS

Develop a preliminary hypothesis that describes what you think might have been at the site before it was a farm. Give reasons for your hypothesis.

## Examples of Early Hypotheses

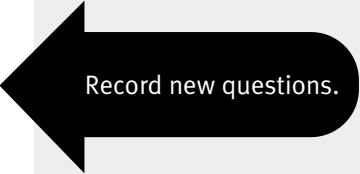
Even with little evidence, students may develop some very imaginative hypotheses. It is important to help them keep their thinking open, and to encourage them to modify their hypotheses as new evidence becomes available.

Some students will try to account for all of the evidence when they develop their hypotheses. Others will latch on to just one artifact or feature. Here are some examples:

- I think the slabs are stairs, maybe to a shop. The shop might have been secret because there was no main road to it. The money was from the cash register. They sold dolls and nails.
- My guess is that this is a rich person's house who had a little girl who had a doll. They owned the money. They had horses that used the nails for horse shoes. There was a tornado that blew everything away.
- The lime stones were pits where they kept prisoners from a war.
- It was a church, and the head was probably one of the people they believed in.
- A person could have put all those things there to play a joke to make the archaeologists dig up the site.
- This might have been a store, who knows? But an archaeologist can change his mind when he finds different evidence, and that's what a good one does.



5. Then ask students to record their questions on the chart you have prepared for that purpose. Let them know that questions are valuable and often lead the way to new research. Keep the chart posted, and add to it as new questions arise.



Record new questions.

### EVALUATING STUDENT PROGRESS

New questions can also reveal a great deal about students' level of thinking on a topic. Questions should develop and become more sophisticated as the unit goes on.