Lesson 1.5

CHRONOLOGY: THE TIME OF MY LIFE

Subjects: science, social studies, language arts.

Skills: knowledge, comprehension, application, analysis, evaluation. **Strategies**: discussion, problem solving, analogy, forecasting, sequence.

Duration: 45 to 60 minutes. **Class Size**: any; groups of 2.



Spear point from Montgomery County, North Carolina, 4000–3000 BC.

Objectives

In their study of chronology the students will use personal time lines and an activity sheet to:

- demonstrate the importance of intact information to achieve accuracy;
- compare and contrast their timelines with the chronological information contained in a stratified archaeological site.

Materials

Ten strips of colored paper, scissors, glue; "My Timeline," "Stratigraphic Section," and "The Time of My Life" activity sheets for each student.

Vocabulary

Chronology: an arrangement of events or periods in the order in which they occurred.

Data: information, especially information organized for analysis.

Stratigraphy: the layering of deposits in archaeological sites. Cultural evidence and natural sediments become buried over time. The layer on the bottom is the oldest; the layer on top is the youngest.

Timeline: a visual representation of events in chronological order.

Background

The proper sequence of events must be known when trying to understand the past. Chronological order means that events are arranged in the order of occurrence, establishing a *chronology*. One way to display events visually in chronological order is with a *timeline*. A timeline is divided into equal time segments (month, year, or century, for example), with one end representing the oldest events and the other end the most recent events.

Chronology is something we all use everyday. When somebody tells us a story or when we watch a news report, it only makes sense if we can understand the story as it happened. Archaeologists always try to establish the age of the sites, artifacts, or events they are studying so they can place them in chronological order. Each piece of information contributes some understanding to the overall story of the past, but only if the information can be placed in chronological order.

Archaeological *data* are often buried. Sites become buried by the deposition of soil through the action of wind, gravity, and water. When archaeologists dig a site, they record the location of what they find, so that chronological order can be established. If the site has not been disturbed by natural or human forces, objects discovered at the bottom of pits dug by archaeologists are the oldest, while those near the surface are the youngest.

When vandals and artifact-seekers dig a site or collect artifacts from the surface, they remove objects which could place the site in time, and therefore the archaeologist cannot learn the site's chronological placement. As they dig, vandals mix the *stratigraphic* layers together and archaeological events cannot be placed in order. The result is that a page of the past has been destroyed—torn up and thrown away. (While events in our lives typically have a short time duration, archaeologists use the term "events" to signify lifeways over a span of time.)

Everyone can help stop this problem by not digging in sites or collecting artifacts and by refusing to buy artifacts from people who dig and destroy sites.

Setting the Stage

Tell a familiar story, such as Goldilocks and the Three Bears, out of sequence, leaving some parts out. Ask students to describe the problems with the story. Why is it important to relate sequential information, including all the important details?

Procedure

- 1. Define chronology and state the necessity of establishing chronological order when studying the past.
- 2. Have the students list ten events in their lives, one on each of the ten strips of colored paper. (*Note:* It may be helpful to have the students do this as a homework assignment with parental assistance.) Next to each event, students draw an object that might symbolize that event. These events should not have obvious time links, such as "my eighth birthday party," or "I started 4th grade." The events could be things like "my sister was born (rattle)," "the family moved (moving van)," "we went to Yellowstone on vacation (tent)." Students should try to include events from their entire lives.
- 3. They then shuffle their strips and exchange them with another student, who tries to lay the strips out in correct chronological order with the most recent at the top.
- 4. The two students who have exchanged strips then tell each other their best guess of the proper chronological order. The strips are then returned to their owners. This is usually a humorous experience for students.
- 5. Discuss: Were you able to reconstruct the timeline correctly? Why or why not? It is difficult, sometimes impossible, to reconstruct a story if the order of events is not known.
- 6. Ask students to randomly remove four events from their personal timeline. Ask students if the chronological order would have been more difficult to construct and if the story of their classmate would have been as complete if there were even fewer strips. Connect this activity to archaeological sites by stressing how archaeological data is usually impossible to place in chronological order if artifact collectors have dug up a site (like mixing up the event strips) or if people have removed artifacts (equivalent to removing some of the event strips).
- 7. Distribute the "My Timeline" activity sheet (which forms the backing for the timeline). Students glue their own strips in chronological order beginning with the most recent event at the top. They can write the year of the event (or they can number the events one through ten) in the column to the left of their strips.

Closure

- 1. Distribute a copy of the "Stratigraphic Section" activity sheet to each student. Have the student lay his or her timeline next to it.
- 2. Using a drawing on the chalkboard, different colors of construction paper layered on top of each other, or any other visual model, demonstrate how stratigraphy is formed.
- 3. Using the background information and the "Stratigraphic Section" activity sheet, discuss the effects of illegal digging on archaeological data recovery efforts.
 - 4. Use the sheet and their timelines to explore the following questions:
 - In what ways is your chronology similar to an archaeological stratigraphic section? In what ways is it different?
 - Imagine that you cannot remember significant events in your life. How would that change the history of your life?
 - In what ways is a hole dug by vandals in an archaeological site similar to a loss of significant events in your life?
 - In summary, what might you say to an artifact collector about the importance of leaving sites undisturbed, as it relates to the importance of stratigraphy?

Evaluation

Have the students complete the "The Time of My Life" activity sheet or use it for a discussion. Or ask the students to present an extemporaneous, persuasive speech that defines chronology as used by the archaeologist and explains the importance of intact sites.

Links

Lesson 2.2: "Stratigraphy and Cross-Dating."

Lesson 2.4: "Tree-Ring Dating."

Sources

Smith, Shelley J., Jeanne M. Moe, Kelly A. Letts, and Danielle M. Paterson. 1993. *Intrigue of the Past: A Teacher's Activity Guide for Fourth through Seventh Grades*. Washington, D.C.: Bureau of Land Management, U.S. Department of the Interior. [This lesson is adapted from "Chronology: The Time of My Life" on pp. 22–26, courtesy of the Bureau of Land Management.]

Ward, H. Trawick, and R. P. Stephen Davis, Jr. 1999. *Time Before History: The Archaeology of North Carolina*. Chapel Hill: University of North Carolina Press. [The image in this lesson's main heading is taken from Figure 3.8.]

[&]quot;The Time of My Life" Activity Sheet Answers:

^{1.} Students should express regret or a feeling of being upset. For someone to wantonly destroy the only evidence of another's life indicates that they have little respect for the meaning of that person's life.

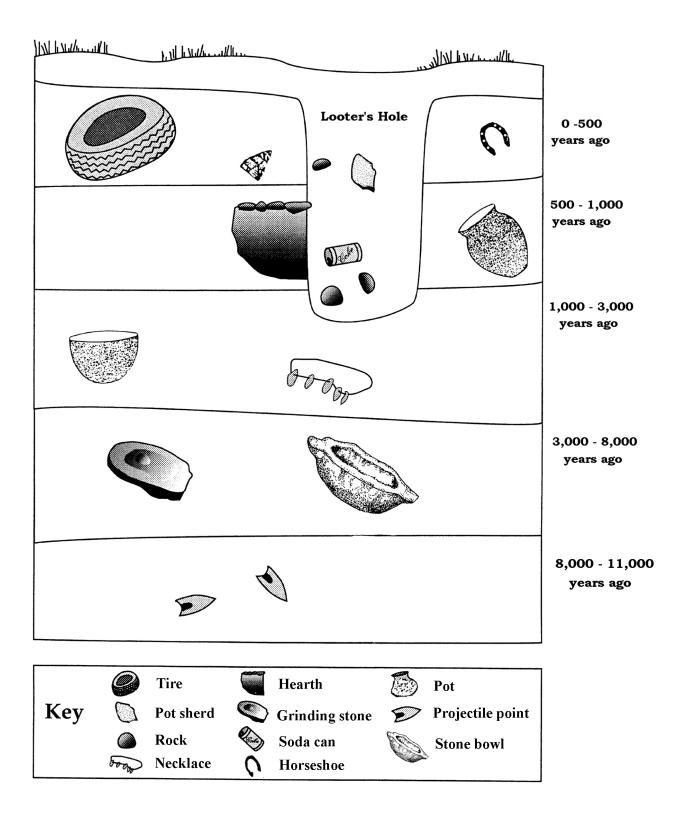
^{2.} By extension of the previous question, students should link their feelings about destruction of their timeline to destruction of evidence of past peoples' lives.

My Timeline

Name:

Today	

Stratigraphic Section



The Time of My Life

Name:

1. Write a short paragraph about how you would feel if your timeline was all that would ever be known about you, and somebody tore it up.

2. How do you think an archaeologist feels when she or he visits a site that has been dug up by vandals? Give reasons for your answer.