Mapping and Excavating a Jell-O Mold

Subject and Grade Math and Social Studies, 5th

Author Alice Elia, revised by Mary Rodriguez (2023)

Time duration One or two 45-minute class period

Overview Students will learn how archeologists excavate sites by doing their own excavation on a Jell-O mold.

TEKS

Mathematics, Grade 5

(1A), apply mathematics to problems arising in everyday life, society, and the workplace

(1C), select tools, including real objects, manipulatives, paper and pencil, and technology as appropriate, and techniques, including mental math, estimation, and number sense as appropriate, to solve problems

(1D), communicate mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams, graphs, and language as appropriate

Social Studies, Grade 5

(5.23A), differentiate between, locate, and use valid primary and secondary sources such as technology; interviews; biographies; oral, print, and visual material;

documents and artifacts to acquire information about the United States

(5.24A), apply mapping elements, including grid systems, legends, symbols, scales, and compass roses, to create and interpret maps

Materials

- 3 sheets of grid handout for each group (included)
- “An Imaginary Archeological Site” handout (optional, included)
- 1 clear bowl of Jell-O for each group with three different color layers with fruit or other objects embedded inside
- Extra bowls or buckets
- Spoons

An idea for fruit is to have fresh grapes on the top layer, older grapes in the middle layer, and raisins in the bottom layer to show that older objects are often found deeper in the ground.

Activities and procedures

Step 1: Teacher will prepare the three-layer Jell-O before the class

Step 2: Split students into groups of three, 1 recorder, 1 person to excavate, and 1 mapper.

Step 3: Hand out 1 sheets of the grid paper to each group.

Step 4: Have students map the three layers of Jell-O. Draw in each grape, raisin, or other object on the grid

paper layer by layer. They will need to carefully remove each layer after they have finished mapping it so that they can access the next layer.

Step 5: Have students remove the items (grapes, etc.) from each layer of Jell-O and write down their findings at the bottom of the grid paper in the wonder and notice columns.

Step 6: Have each group share a portion of its findings with the class.

Extension Activities

Have students read the “An Imaginary Archeological Site” handout and answer the questions on it.

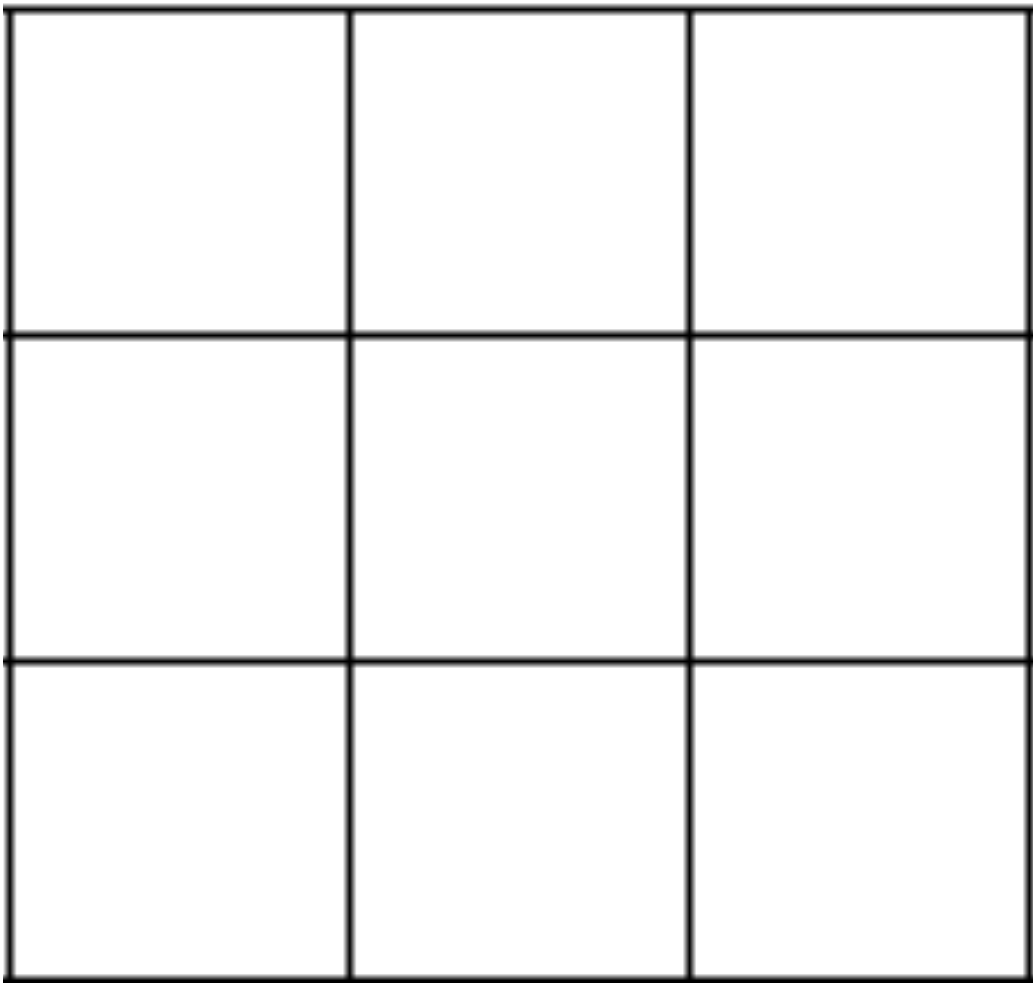
Assessment

Completed “A Grid of the Artifacts” handout.

Names_____ Date_____ Class_____

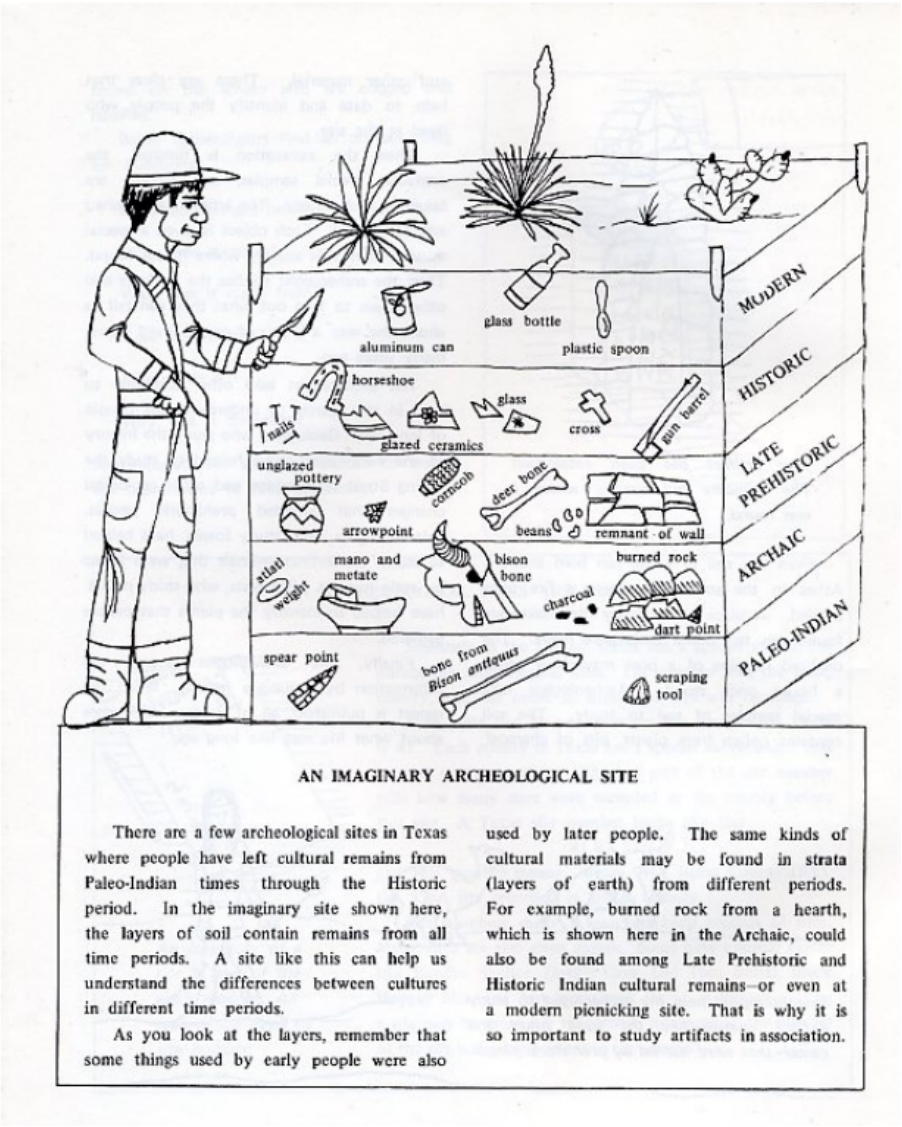
Instructions: Draw each object on the grid below layer by layer. Fill in the table with things that you wonder and notice as you excavate.

A Grid of the Artifacts



What do you notice?	What do you wonder?

Name_____ Date_____ Class_____



AN IMAGINARY ARCHEOLOGICAL SITE

There are a few archeological sites in Texas where people have left cultural remains from Paleo-Indian times through the Historic period. In the imaginary site shown here, the layers of soil contain remains from all time periods. A site like this can help us understand the differences between cultures in different time periods.

As you look at the layers, remember that some things used by early people were also used by later people. The same kinds of cultural materials may be found in strata (layers of earth) from different periods. For example, burned rock from a hearth, which is shown here in the Archaic, could also be found among Late Prehistoric and Historic Indian cultural remains—or even at a modern picnicking site. That is why it is so important to study artifacts in association.

(Image courtesy of the Office of the State Archeologist, Texas Historical Commission, Living with the Texas Past Series, No.1, 1983 ; Robert J. Mallouf, Series Editor.)

1. **Why are the oldest artifacts at the bottom of the archeological site?**

2. **If future archeologists excavated your schoolyard, name 5 things they might find.**