

RESOURCE LIBRARY
ACTIVITY : 50 MINS

Sediment Fossil Surprise

Students analyze illustrations to understand how a fossil forms. Then they make a model of fossils found in sediment layers and eat it.

GRADES

3 - 5

SUBJECTS

Geology

CONTENTS

7 Images

OVERVIEW

Students analyze illustrations to understand how a fossil forms. Then they make a model of fossils found in sediment layers and eat it.

For the complete activity with media resources, visit:

<http://www.nationalgeographic.org/activity/sediment-fossil-surprise/>

Program



DIRECTIONS

1. Display the illustrations to show students one way a fossil forms.

Scroll through the color illustrations and read aloud the captions to help students understand why some fossils are found in sediment layers. Explain that the newest layers are on the top

and the oldest layers are on the bottom. Scientists study these layers to determine the age of the rock and the fossils within. Tell students they are going to make an edible model of fossils found in sediment layers.

2. Have students draw their models.

Provide each student with a cup or bowl, drawing paper, and a pencil. Have students draw their cup or bowl on a piece of paper. Then ask them to add lines to indicate “sediment layers.” Have students refer to the black-and-white illustration for clues, as needed.

3. Have students label their drawings.

Have students label the top layer “newest” and the bottom layer “oldest.” Then have them draw and label some “sea creatures” in each layer.

4. Have students select their ingredients.

Ask each student to select their ingredients from the variety available. Tell them to choose based on what they will use to represent the sediment layers and sea creatures. For the sea creatures, students can use edible snacks such as raisins, chocolate candies, gummy candies, vanilla wafers, hard candies, or fish-shaped fruit snacks. For the sediment layers, students can use edible ingredients such as coconut flakes, whipped cream, pudding, chilled gelatin, crushed cookies, and decorating sprinkles.

5. Have students prepare their fossils.

Have students use their drawings as guides to build their models. Have them make animals from selected ingredients. For example, students can add food coloring to vanilla wafers to represent an ammonite or shark tooth. They can cut fish-shaped fruit snacks into the shapes of prehistoric sea creatures.

6. Have students build models.

Ask students to spread a layer of sediment ingredients and add some sea creatures in their bowl or cup. Then have them repeat, using different materials for each layer.

7. Allow students time to enjoy their treat and discuss the activity.

Allow students time to eat the model. As they eat, encourage them to notice the different layers and where they find the fossils within them.

OBJECTIVES

Subjects & Disciplines

Earth Science

- Geology

Learning Objectives

Students will:

- draw, label, and create a model of fossils found in sediment layers

Teaching Approach

- Learning-for-use

Teaching Methods

- Discussions
- Hands-on learning
- Visual instruction

Skills Summary

This activity targets the following skills:

- Critical Thinking Skills
 - Creating
 - Understanding

National Standards, Principles, and Practices

NATIONAL SCIENCE EDUCATION STANDARDS

- (K-4) Standard D-1:

Properties of earth materials

Preparation

What You'll Need

MATERIALS YOU PROVIDE

- Clear cups or bowls
- Edible baking ingredients
- Edible snack foods
- Markers
- Paper
- Pencils
- Scissors
- Spoons
- Transparent tape

REQUIRED TECHNOLOGY

- Internet Access: Optional
- Tech Setup: 1 computer per classroom, Projector

PHYSICAL SPACE

- Classroom

GROUPING

- Large-group instruction

BACKGROUND & VOCABULARY

Background Information

Scientists use models to help them understand natural processes.

Prior Knowledge

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Recommended Prior Activities

- None

Vocabulary

Term	Part of Speech	Definition
fossil	noun	remnant, impression, or trace of an ancient organism.

For Further Exploration

Websites

- [National Geographic: Sea Monsters—A Prehistoric Adventure](#)

FUNDER



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