

RESOURCE LIBRARY
ACTIVITY : 30 MINS

Toothpick Tylosaurus

Students use toothpicks to make a skeleton model of a sea reptile that lived more than 65 million years ago.

GRADES

3 - 5

SUBJECTS

Geology

CONTENTS

6 Images, 1 PDF

OVERVIEW

Students use toothpicks to make a skeleton model of a sea reptile that lived more than 65 million years ago.

For the complete activity with media resources, visit:

<http://www.nationalgeographic.org/activity/toothpick-tylosaurus/>

Program



DIRECTIONS

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

Scroll through the color illustrations and read aloud the captions to help students understand how fossils form. Explain to students that, over millions of years, fossil remains become

crushed or broken. They are often incomplete, and scientists must work very carefully to put them back together. Tell students they are going to make a skeleton model of a *Tylosaurus*, a giant sea reptile that lived more than 65 million years ago.

2. Have students prepare their work areas.

Have students lay each black-and-white illustration of the *Tylosaurus* on a flat, clean surface. Then ask them to cover it with waxed paper and secure it to the surface with tape. Have students gather the other materials they will need.

3. Have students construct the skeleton model.

Have students use toothpicks and pasta to form the skeleton. Direct them to start with the spine, or backbone. Then to add other pieces to make the skull, tail, and paddles.

4. Have students glue the pieces together.

Have students glue the pieces together and then allow the model to dry completely. Help students to carefully lift the dry model off of the drawing. Then have them use scissors to trim away the waxed paper.

5. Have students compare their models to their original drawings.

Have a whole-class discussion. Ask: *How similar or different are your finished model and the original drawing? Why?*

OBJECTIVES

Subjects & Disciplines

Earth Science

- Geology

Learning Objectives

Students will:

- construct a skeleton model of an extinct species

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

- Glue
- Pasta in assorted shapes
- Scissors
- Toothpicks
- Transparent tape
- Waxed paper

REQUIRED TECHNOLOGY

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

PHYSICAL SPACE

- Classroom

GROUPING

- Large-group instruction

BACKGROUND & VOCABULARY

Background Information

When scientists discover fossil remains, they must work very carefully in order to put them back together.

Prior Knowledge

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Recommended Prior Activities

- None

Vocabulary

Term	Part of Speech	Definition
fossil	<i>noun</i>	remnant, impression, or trace of an ancient organism.
model	<i>noun</i>	image or impression of an object used to represent the object or system.

For Further Exploration

Websites

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

FUNDER



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