Dinosaur Teeth

Activity for Grades 5–8

Introduction

In the Hall of Ornithischian Dinosaurs at the American Museum of Natural History, robotic dinosaur skulls demonstrate how the various dental adaptations of plant-eating dinosaurs worked. They show how as teeth wore down, new teeth grew to replace them.

Paleontologists can tell a lot from the size of a dinosaur's skull and from the teeth in it. The teeth provide the best clues as to what dinosaurs ate. Some dinosaurs, like *Apatosaurus*, had long, rake-like teeth. They used their teeth to strip leaves off branches. *Tyrannosaurus rex* had sharp, knife-like teeth. It used them to rip meat off its prey and swallow it whole. *Triceratops* had a whole battery of sharp teeth that it used to slice plants. Other dinosaurs, such as Hadrosaurs, had whole batteries of grinding teeth used to grind up plants.

Objective

This activity will show students the kinds of information that studying teeth can provide.

Materials

- Four to five small mirrors
- Pieces of carrot (one per student)
- **Choppers, Strippers, Grinders, and Rippers** duplicated for each student

Procedure

1. Have students work in small groups. Distribute the mirrors to groups. Have students use the mirrors to examine their teeth. Ask them to identify and sketch the three different kinds of teeth they have (incisors, canine teeth, and molars). Ask them to hypothesize how each of the three teeth are used.

2. Distribute carrots. Instruct students to use their teeth to:
   a. grate or rake off the carrot's outer layer
   b. slice or bite off a piece of the carrot
   c. grind up a piece of the carrot

3. Distribute the **Choppers, Strippers, Grinders, and Rippers** to students. Have students read the directions and complete the activity.
   (Answers: top left, stripper; top right, grinder; bottom left, chopper; bottom right, ripper.)

Choppers, Strippers, Grinders, and Rippers

Look at the dinosaur skulls below. Look carefully at the teeth.

- Write *chopper* under the skull of the dinosaur that used its teeth to chop up plants.
- Write *stripper* under the skull of the dinosaur that used its teeth to strip leaves off branches.
- Write *grinder* under the skull of the dinosaur that used its teeth to grind up plants.
- Write *ripper* under the skull of the dinosaur that used its teeth to rip meant off its prey.