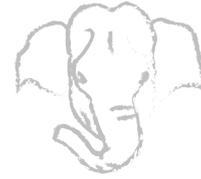


Elephant Teeth



Grades: K-5

Subject: Anatomy

Materials: Rough Outdoor Surface
(brick, concrete, pavement, etc.)
Sandpaper

NGSS:

3-LS3-2: Hereditary: Inheritance and
Variation of traits

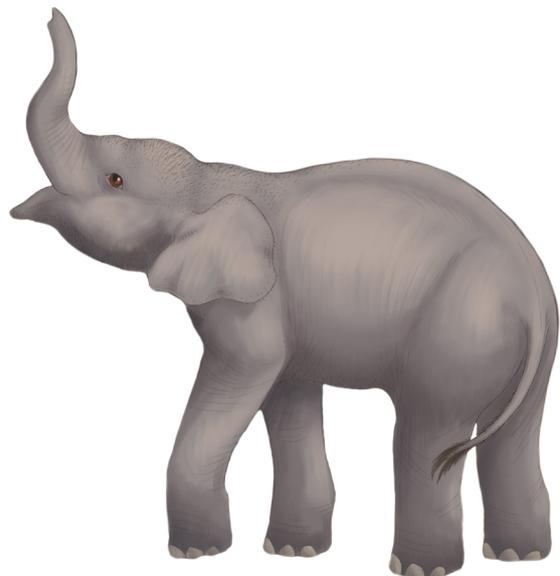
Background

The majority of mammals are herbivores, eating grasses, leaves, and plants. These foods are mostly fiber and water, and are low in nutrients. In order to get the nutrients they need to survive, herbivores have to eat for up to 20 hours a day. Even then, some resort to vomiting up food and re-eating it, or re-eating their waste to extract any nutrients they missed the first time!

Eating can be very hard on the teeth. Herbivores—like Asian elephants, who spend 16 hours eating each day—grind their teeth to break down their food. How do you think this affects their teeth and their health?

Activity

1. Review the above background as a class.
2. Using the sandpaper, have each student rub the surface they have available to them, whether that be a brick or their driveway, for a minute. Ask them what they see. Students can bring a rock from outdoors inside to complete this activity if this needs to be an indoor activity.
3. Have the class prepare for the discussion below.



Discussion

As students rub the sandpaper on the brick, they will see dust in the air. This is what happens to the Asian elephants' teeth with every meal! Can you imagine what would happen to the brick if you rubbed sandpaper on it for 16 hours every day? After ten years of constant grinding and wearing away, elephants will grind their teeth until there is nothing left. Fortunately, in elephants, this triggers a new set of teeth to come in. Their full set of teeth will grow back six times, but after the sixth set, no more will grow.

Ask your students the following questions: What do you think will happen when the elephants no longer have teeth? How are teeth connected to survival? How many sets of teeth do humans have? What do you do to take care of your teeth? Based on this activity, what do you think a giraffe's teeth are like? What about a cougar's teeth?



This activity is excerpted from the Teacher's Guide to:

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