Activities

The Busasaurus

Grades: 3–5

Overview
As part of the Magic School Bus Series, kids learn about many different kinds of dinosaurs, their diet and life cycle. Then they make a "fossil" by making an imprint on a clay surface. Later they used Plaster of Paris to make a relief image.

Field Trip Notes
Were dinosaurs the biggest, meanest animals that ever lived? To find out, the kids travel back to the Late Cretaceous Period - 67 million years ago. There, they see dinosaurs eat, hunt, rest, and fight. Some even take care of baby dinosaurs! The kids discover that not all dinosaurs were huge - some were as small as rabbits. And most dinosaurs weren't killers - they preferred plants to dino-burgers. But one meat eater - Tyrannosaurus rex - has a taste for a Magic School Bus sandwich! What
happens when Ms. Frizzle enlarges Arnold to T-rex size? Does the Cretaceous creature drop his dinner plans?

**Possible Fossils**
Whoops! Arnold accidentally carries a fossil with him back in time, where it turns back into what it was originally - a dinosaur egg. Here, your kids can make two types of "fossils."

**Make An Imprint Fossil**
Time: 20 minutes
Group Size: Four

Sometimes, animal remains trapped in stone dissolve away. That leaves an imprint fossil - a hollow imprint of the remains in the stone. Footprints can also leave imprint fossils.

**What You Need**
- Objects for making prints: twigs, shells, pine cones, chicken bones (boiled clean)
- A paper bag
- A small handful of modeling clay (at art and toy stores) per child
- 1 plastic baggie per child

**Talk About It**
Ask: What do you know about fossils? Where do you think fossils come from?
What To Do
• Place the objects in a paper bag.
• Give each student a lump of clay and a plastic bag.
• Let each student choose an object from the paper bag, without showing it to the others.
• Have them put their clay in the plastic bag and flatten it.
• Students press objects into clay through the bag.
• Students remove clay from the bag. Ask: How is your imprint like your object? Different?

Make a Cast Fossil
Time: One hour
Group Size: Four

Cast fossils happen when minerals from earth or water fill an imprint. The minerals harden into stone. The stone is shaped like the original living creature. Just before kids are ready to use plaster of paris:
For each child, mix half cup of plaster of paris with two and a half tablespoons of cold water in a paper cup. A one-fourth teaspoon of salt speeds hardening.

What You Need
• Students’ imprint “fossils”
• Plaster of paris (at art and hardware stores)
• Salad oil, small jar
• 1 half-pint milk carton per child, with top cut off
• Paper cups
• Plastic spoons
Talk About It
Ask: What might happen if you poured something that could harden into your imprint fossil?

What To Do
• Distribute milk cartons and spoons and have students wipe clay imprints lightly with oil.
• Kids place imprints into milk cartons and, using spoons, cover them with about an inch of plaster of paris.
• Leave the cartons in a warm, dry spot.
• When the plaster of paris feels very hard (after 30-60 minutes), peel the milk carton away and gently pull off the clay. The hardened plaster of paris leaves cast fossils. Ask: Which type of fossil is most like the original object? Why?
• Have the students exchange cast fossils. Can they figure out what objects were used to make casts? How?

Next Stop
Go on a search for animal prints. (You can also have children look for human footprints and tire tracks.) Look at cement, mud, and snow. Ask: Which animals or objects made which tracks? How can you tell?

• Subjects:
  Archaeology and Anthropology, Dinosaurs, Paleontology and Fossils, Science, Observation, Arts and Crafts