

POP! TEACHER RESOURCE

Lesson Plan

Exploring Designs for Digging

Lesson Plan for *Moles*

Grade 1

Objective

To help students understand how the shape of a mole's front feet help the animal dig through soil.

Things Needed

- *Moles* book
- A plastic storage bin
- A bag of sand
- Straws, forks, and small paper plates
- Plastic tablecloth (or enough newspapers to cover a table)

Before the Activity

Cover a table with the plastic tablecloth (or newspapers). Pour the sand into the plastic storage bin and place the straws, forks, and paper plates on the table next to it. Read *Moles* aloud to students.

Activity

A mole's front feet have a shape that helps them move lots of dirt. To explore how this shape helps moles dig quickly and easily, have students gather around the table with the bin of sand. Ask students to look at the objects next to the container of sand and guess how much sand each object could move in a single scoop, as well as which object would be the best tool to dig through the sand.

Then, test their predictions. Students can take turns using each type of utensil to scoop a trench from one end of the container to the other. They should pay attention to how much sand each tool can move, as well as how quickly and easily they can scoop. After each student has a turn, ask the following questions:

- Which tool worked best for moving the sand? (Answer: the plate)



- Why do you think that is? (Answer: It was the biggest and widest, and it didn't have holes like the fork for sand to slip through.)

Repeat the experiment, this time having students use their hands. Students should try digging a trench in the container using the following three hand shapes: when their fingers are spread apart, when their fingers are together but their hand is straight, and when their fingers are together and their hand is cupped. Once again, students should pay attention to how much sand they can move with each shape. After students experiment, ask the following questions:

- Which hand shape is most like the shape of a mole's front paws? (Answer: the cupped hand)
- Why do you think this shape is good for digging? (Answer: It forms a wide shape that catches lots of sand and doesn't let the sand slip through.)

Evaluation

Could students guess how the shape of the tool or of their hand affected how much sand it could move? Could they adjust their guesses as needed based on their experience testing that tool or shape?

Standards

This lesson plan may be used to address the Common Core State Standards' reading standards for informational texts, grade 1 (RI 1.1, 1.3), and the National Science Standard's Content Standard A, grades K-4.

