

SLIP SLIDING AWAY

GOAL

A simple activity for pre-school.

Why do things sometimes slide fast and far and sometimes they hardly slide at all?

Engineers invent (design, explore) ways to solve problems. Let the children know that they will be investigating friction to decide the easiest way to move a smooth object. Ask the kids if they have tried sliding across a smooth floor in their socks. In their sneakers? Have them try sliding (safely) in sneakers, socks, and bare feet.

MATERIALS

- Smooth jar lid to slide.
- A few surfaces with different textures for sliding the lid such as a wooden floor, rubbery yoga mat, carpet, cookie sheet, sandpaper.

WHAT TO DO

1. First, let kids feel the different sliding surfaces. What kinds of words describe each surface? Is it smooth, slippery, rough, bumpy, or something else?
2. Encourage children to make predictions about how fast and far the lid will slide on each surface and to explain why they think so.
3. Now let's try it. Remind children to try to push the lid the same way on each surface.
4. Have children describe their results and draw some conclusions. How did the lid move on, for example, the wooden floor? How did it move on the yoga mat? Which surface created the most friction with the lid? Which surfaces created less friction?



FURTHER EXPLORATION

- Sometimes grippy is good. Try opening a tight jar lid (use a plastic jar just in case it gets dropped) using a piece of smooth cloth. Now try using a piece of jiffy grip or a rubber lid opener. Which is easier? That's putting friction to work!
- Investigate friction when you make a peanut butter and jelly sandwich. How does the peanut butter slide over the bread? It's hard to spread the peanut butter over the bread! That's friction between the bread and the peanut butter. How about the jelly? Less friction? How can you tell? Important: if you try this in a classroom be sure to check with the teacher first about nut allergies.

CONNECT TO ENGINEERING

Engineers also put friction to work for safety's sake. Discuss with the kids why there are rubbery dots on the bottom of their footy pajamas, or why the bottom of the tub is textured, or why their sneakers have rubber soles.

Activity adapted from *Sid the Science Kid*, an animated educational television series using comedy to promote exploration, discovery, and science readiness among preschoolers. Used with permission. pbskids.org/sid/

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