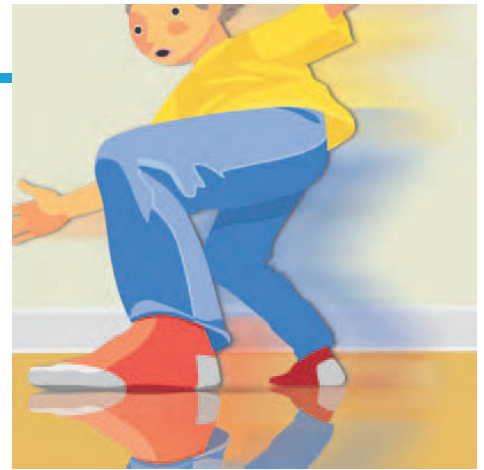


Slip Sliding Away

Why do things sometimes slide fast and far, but other times they barely move?



Instructions

In this activity, students test how a jar lid slides on different types of surfaces.

- 1 Show students the different surfaces they will be experimenting with. Have children feel and describe them as smooth, bumpy, rough, and so on.
- 2 Let students hold the jar lid and note its smoothness. For each surface, ask children to predict how fast and far the jar lid will slide, and why they think so.
- 3 Tell children to test their predictions by pushing the lid in the same way on each surface and to keep track of the results.
- 4 Hold a conversation about children's findings. Introduce the term **friction** to describe why some surfaces made the lid slide easily compared to others; some surfaces create more friction, which makes it harder for the lid to slide.

Materials

PER CLASS OR GROUP:

- Smooth jar lid to slide
- Differently textured surfaces to slide it on: wooden floor, yoga mat, carpet, cookie sheet, sandpaper, etc.



Engineering & Science Connections

- 🔗 Friction is the resistance of one surface or object upon encountering or moving on another surface or object.
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- 🔗 Engineers use the principle of friction to make things safe. They thought of putting rubbery dots on the bottom of footy pajamas and rubber soles on sneakers.
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- 🔗 Aerospace engineers design airplanes to land and stop safely by making use of friction. Planes slow down using friction within the brakes, as well as from the rubber tires on the landing strip.
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- 🔗 In some cases, engineers need to reduce the amount of friction. For example, a water slide is designed to reduce friction for speeding up the slide action.

Guiding Questions ?

Which surface made the lid slide fastest and farthest?

Which surface made the lid not slide?

Which surface made the lid slide a little bit?

Activity adapted from Sid the Science Kid, an animated educational television series using comedy to promote exploration, discovery, and science readiness among preschoolers.

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