



RIDING THE SLIDE: A FRICTION ACTIVITY

Ready to slide into science? In this activity, you'll race down a playground slide and explore how different surfaces change the speed of your ride! Which materials will cause you to zoom down, and which ones will cause you to slow down? Put your scientific skills to the test and discover how friction works in the real world!

SUPPLIES

- ▶ Playground slide
- ▶ Several different materials large enough to sit on
- ▶ A stopwatch

PRE-ACTIVITY QUESTION

Before you start, read through the instructions and think about friction. Friction is the force that tries to slow things down when they move. On different surfaces, the amount of friction can change. How do you think the friction on the slide will change with each surface? Do you think you'll slide faster on some surfaces and slower on others?

INSTRUCTIONS

1. Find a clean, dry slide you can use for this activity.
2. Gather several different materials you can sit on to slide down the slide. For example, you could use a towel, smooth plastic sheet, carpet, or aluminum foil. Alternatively, you could simply slide down wearing different types of pant materials like jeans, nylon pants, and sweatpants.

3. Slide down the slide, testing out each fabric underneath you one at a time.
 - a. Ask a partner to watch you slide down the slide and start a timer as soon as you begin sliding and stop the timer as soon as you reach the bottom of the slide.
 - b. Note the time it takes you to reach the bottom of the slide and record this time on your data table.
 - c. Repeat this for each surface, making sure to try them all.

QUESTIONS

1. Which surface made you slide the fastest? Why do you think that happened?
2. Which surface made you slide the slowest? What do you think caused that?
3. Which surface had the most amount of friction? Which had the least?

