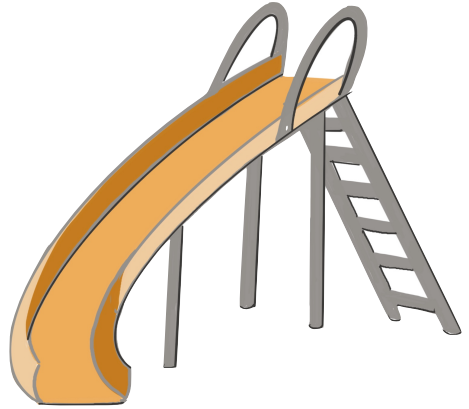


# Playground Ramps

Inspired by *Ramp It Up!* by Katrina Tangen.

**Goal:** Find and investigate ramps at the playground.

**You will need:** An assortment of soft rolling objects or balls, for example, a beach ball, tennis ball, or ping-pong ball.



## What to do:

- Look for ramps at a playground. A ramp is a tilted, flat surface.
- Try to find several ramps.
  - Look for ramps that have steep slopes and shallow slopes.
  - Look for ramp-like surfaces around the playground—for example hills, knolls, or trails.
- Roll the balls or soft rolling objects up each of the ramps using the same amount of force with each object.
  - What do you notice?
  - Does it require different amounts of force to make each of the objects travel to top of the ramp?
- Roll the balls or soft rolling objects down each of the ramps.
  - What do you notice?
  - Do each of the objects travel down at the same speed?

## To think about:

- How are hills, mountains, and sand dunes like inclined planes or ramps?
- Does the texture or the weight of the objects you rolled influence their speed? How could you find out?
- Delivery trucks often have ramps. Why do you think they do?