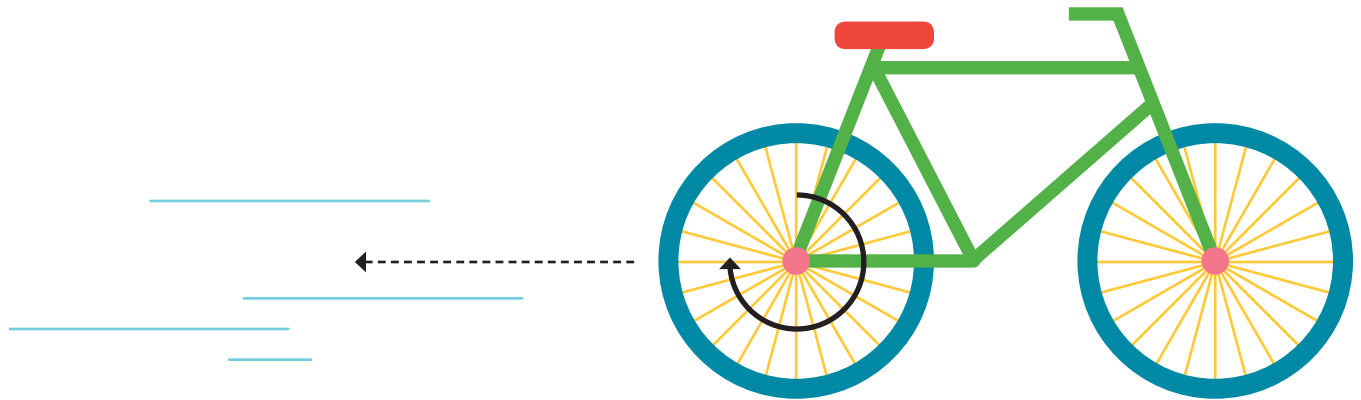


SIMPLE MACHINES EXPERIMENT



YOU NEED:

A BIKE, SCOOTER, OR SKATEBOARD

SEE AND FEEL HOW A WHEEL AND AXLE WORKS

- 1.** Ride a bike, scooter, or skateboard with your child.
- 2.** Notice which direction you're applying an input force.
- 3.** Notice which direction you're moving.

On a bike, the input force is applied in a circular motion, around and around as you pedal. The wheel and axle changes the direction of your force so you move forward in a line. With every pedal, you apply a strong input force over a short distance on the axle to move the wheel a greater distance with less force.

On a scooter or a skateboard, you push down on the ground to move forward. Again, the direction of your force is changed. But, the wheel and axle in a scooter or skateboard work in the opposite way a bike does. You apply a weaker force over a longer distance around the wheel and the axle turns a shorter distance with more force.



SIMPLE
MACHINES

This activity was designed to support learning in the Simple Machines app. Learn more at [tinybop.com](https://www.tinybop.com).

