



## Force Fun Partner Activities

0507.11.3 Design and conduct experiments using a simple experimental design to demonstrate the relationship among mass, force, and distance traveled

### **Materials Needed:**

2 sponge balls  
yardstick  
stopwatch or watch with a second hand  
pillowcase or towel  
Science journal



List each activity in your Science journal and what happens each time. Then write a definition for **force** in your own words and put it in the glossary.

Activity 1: Put the pillowcase or towel flat on the floor. Place one sponge ball in the center. Without lifting the towel completely off the floor, use vibrations to move the ball. You can do this by each partner taking an end of the towel and moving it slowly.

Activity 2: Position the yardstick on the floor in a straight line between you and your partner. Place a sponge ball at one end. Rest your wrist on the floor and then flick the ball toward the other end of the stick. Time the ball's movement and record the time and distance it travels along the yardstick. Repeat the task twice, varying the amount of force you use to flick the ball.

Activity 3: Position the yardstick on the floor in a straight line between you and your partner. Place one sponge ball on each end of the yardstick. Then, at the same time, each person flicks their ball toward the other. Observe what occurs when the balls collide. Repeat the task, varying the amount of force used to flick the balls.