

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Period: \_\_\_\_\_ Page: \_\_\_\_\_

### Forces in Pairs Lab Activity

Objective: \_\_\_\_\_

Research: \_\_\_\_\_

Action: \_\_\_\_\_

Reaction: \_\_\_\_\_

Newton's Third Law of Motion: \_\_\_\_\_

\_\_\_\_\_

Activities:

For each of the following situations, name the action/ reaction pairs of forces. Then name the effect each force has.

#### **ACTIVITY 1**

Place the nickel over the opening of the bottle. Using a dropper, place water around the edge of the nickel to "seal" it.

Clasp your hands around the bottle until you see something happen.

Action: \_\_\_\_\_

Reaction: \_\_\_\_\_

Effects of the Action/ Reaction: \_\_\_\_\_

\_\_\_\_\_

#### **ACTIVITY 2**

While both you and your partner are sitting down, grasp one end of the "tug of war" rope.

Start pulling. The first person to get the red mark past their knees wins.

Action: \_\_\_\_\_

Reaction: \_\_\_\_\_

Effects of the Action/ Reaction: \_\_\_\_\_

\_\_\_\_\_

### **ACTIVITY 3**

Push on the lab table with your knees straight and your body at an angle to the table/

Action: \_\_\_\_\_

Reaction: \_\_\_\_\_

Effects of the Action/ Reaction: \_\_\_\_\_

\_\_\_\_\_

### **ACTIVITY 4**

Place the ruler over the edge of the lab table, with half of the ruler hanging over the edge. Place the nickel on the end of the ruler that is on the table. With one hand, press on the ruler where the table edge is.

Flick the other end of the ruler with your other hand.

Action: \_\_\_\_\_

Reaction: \_\_\_\_\_

Effects of the Action/ Reaction: \_\_\_\_\_

\_\_\_\_\_

### **ACTIVITY 5**

Watch as the teacher, blows up the balloon and releases it.

Action: \_\_\_\_\_

Reaction: \_\_\_\_\_

Effects of the Action/ Reaction: \_\_\_\_\_

\_\_\_\_\_

**QUESTION:** Think of your own action-reaction activity. Write down your idea:

\_\_\_\_\_

\_\_\_\_\_