



# **Forces, Motion, and Direction:** Student Activity Sheet

Name: \_\_\_\_\_

Date: \_\_\_\_\_

## **Explore**

### **Part 1: Exploring Forces**

1. Place the pom pom on a flat surface.
2. Using only the craft stick your challenge is to find as many different ways as you can to move the pom pom.
3. Record in the chart below what you did to the pom pom.

| <b>Tool</b>        | <b>What did you do to the pom pom?</b> |
|--------------------|--|
| <b>Craft Stick</b> |  |
| <b>Index Card</b>  |  |
| <b>Rubber Band</b> |  |
| <b>Straw</b>       |  |

4. Repeat **steps 2-3** using only the index card.
5. Repeat **steps 2-3** using only the rubber band.
6. Repeat **steps 2-3** using only the straw.
7. Record in the chart three things you did to move the ball, the tool you used, and if the force is a push or a pull. For the third example circle which force you used.

| What did you do to the pom pom? | Tool | Force          |
|---------------------------------|------|----------------|
|                                 |      | Push           |
|                                 |      | Pull           |
|                                 |      | Push      Pull |

## Explain

1. What is the main idea of the passage? \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_
2. What would happen if you pushed a swing softly? Use evidence from the text to support. \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

3. After you watch the video write a one sentence summary of what you learned.

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## Elaborate

### Part 2: Exploring Motion and Direction

1. Pick up the ping pong ball and drop it on a flat surface. Observe the ball until it stops.
2. Repeat **step 1** a couple more times.
3. Record what happened to the ping pong ball. Include as many details as you can.

**The ping pong ball** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_.

4. Look at your description of how the ball moved. Circle all of the directions your ball went. If your description does not have many direction words, add them to your description. How many different directions did your ball travel?

**The ball traveled** \_\_\_\_\_.

## Elaborate

### Part 3: Force and Direction Challenge

Your challenge is to move the ping pong ball or pom pom from the “start” label to the “finish” label using any of the materials from the bag.

## Rules:

- The “start” label must be at least 500mm away from the “finish” label.
  - Apply at least one pull force.
  - Apply at least one push force.
  - Make the ping pong ball or pom pom go in **three** different directions.
  - Stop on the “finish” label
6. Draw the path of the ping pong ball or pom pom. Explain the forces and directions the ping pong ball or pom pom moved from start to finish.

## Evaluate

1. Explain how an object moves. \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

# The Recess Queen

1. Why was Katie Sue not afraid of Mean Jean? Use text evidence to support our answer. \_\_\_\_\_  
\_\_\_\_\_

2. Describe the relationship between Mean Jean and the other kids. How did that change towards the end of the story? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

3. Summarize the story using specific details from the text.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

4. Describe one activity that the kids played that used a push force.

\_\_\_\_\_  
\_\_\_\_\_