

Exploring the Motion of a Ball

Explore Activity

Materials (per group)

half-meter stick
styrene ball

masking tape (2 strips, 30 cm each,
and 1 strip, 1m)
wall

Material Substitutions

If using a different type of ball, be sure it is made of material that will not be harmful if it accidentally strikes a student.

Additional Comments

This activity can be expanded by having students bounce the ball off of the wall at different angles and with different amounts of force in an attempt to get the ball close to the target.

Activity Rubrics

Scoring Key

4 correct, complete, detailed

3 partially correct, complete, detailed

2 partially correct, partially complete, lacks some detail

1 incorrect or incomplete, needs assistance

Explore Activity

Exploring the Motion of a Ball

Scoring Criteria

Student followed instructions to observe changes in how a ball is pushed and its motion.

Student estimated and measured the distance between the ball and the center of the X.

Student recorded estimates and measurements.

Student described the change in how the ball was pushed.

Student communicated by discussing description with the class.

Score

total points

% equivalent



Exploring the Motion of a Ball

Explore

Record your estimates and measurements in the chart.

	Estimate of distance to the center of the X	Measured distance to the center of the X
Push 1		
Push 2		
Push 3 (bounced off the wall)		
Push 4 (bounced off the wall)		

Reflect

1. Describe how you changed your push when you bounced the ball off the wall.

Name _____ Date _____

Inquire Further

How would the motion of the ball change if you moved the tape farther from the wall? Develop a plan to answer this or other questions you might have.

Self-Assessment Checklist

- | | |
|---|-------|
| I followed instructions to observe changes in how a ball is pushed and its motion. | _____ |
| I estimated and measured the distance between the ball and the center of the X. | _____ |
| I recorded my estimates and measurements. | _____ |
| I described the change in how I pushed the ball. | _____ |
| I communicated by discussing my description with the class. | _____ |



Notes for Home Your child **explored** the motion of a ball.

Home Activity: With your child, make predictions about and explore the motion of a ball when it is bounced off the wall at an angle.