

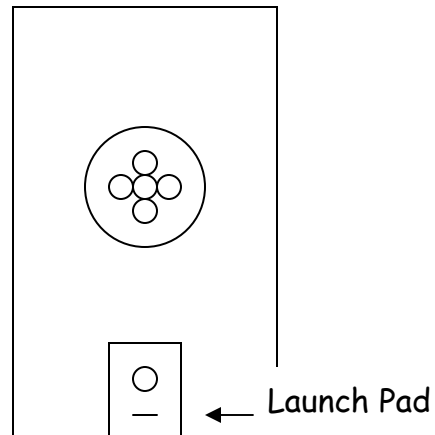
The Marble Challenge

Problem: What effect will force have on an object's motion?

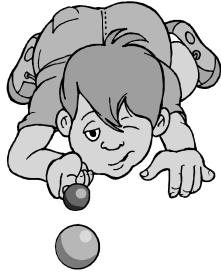
Materials: 5 small marbles, 1 shooting marble, pencil, launching pad, 12 x 18 sheet of construction paper, metric tape

Procedure:

1. Set 5 marbles inside a circle drawn in the middle of the sheet of construction paper (see diagram).



2. Place the marble on the launch pad and placing your finger at #1, launch the marble toward the marbles. Watch carefully, noticing where the shooting marble hits the other marbles and what direction and how fast they go. Using a metric tape, record the distance from the launch pad.
3. Return the marbles to their original position and launch from #2. Record the distance the marbles are from the launch pad.

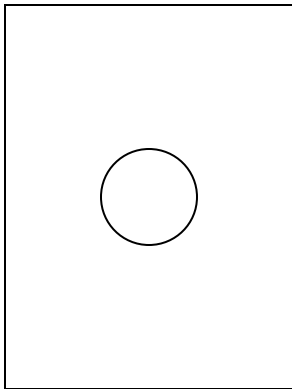


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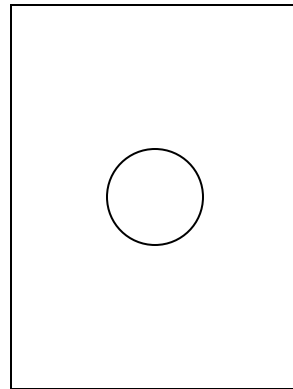
Name _____

Date _____

1. Draw a picture to show where your marbles ended up:



Launch #1



Launch #2

2. Complete the chart recording the distance the marbles were from the launcher to compare your results:

Marble	Launch #1	Launch #2
A		
B		
C		
D		
E		

3. Does the amount of force affect the distance the marbles traveled? _____

Explain your answer:

4. Do all the marbles move in the same direction? _____

Explain your answer:

Launch Pad for Marble Challenge

