

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

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

Period: \_\_\_\_\_

### Lab - Effect of Mass on a Falling Object

Question: How does mass affect the velocity of falling objects?

Hypothesis: If \_\_\_\_\_ then \_\_\_\_\_  
\_\_\_\_\_ because \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Experiment:

1. Gather Materials: Triple Beam Balance, 4 balls, 4 lengths of track, stopwatch,
2. Mass and record each type of ball
3. Lift one end of track to a height of  $\frac{1}{2}$  meter
4. Set a start & stop line  $\frac{1}{2}$  meter apart
5. Set ball at top of ramp, release
6. Start timer when ball reaches start line, stop timer at stop line
7. Record time
8. Repeat steps 5 to 7 3 times
9. Repeat procedure for each type of ball

Data:

Type of ball	Mass of ball (grams)	Time for each roll (seconds)			Average time of roll (seconds)	Distance rolled (meters)	Speed of rolling ball (m/s)
		Trial 1	Trial 2	Trial 3			