

# Project: Objects in Motion

(Collaborate with a partner or 2)

**Problem:** How can the speed of \_\_\_\_\_ be increased/decreased?

**Background:** Skip 8-10 lines (Students take notes on 2 forces that affect their object's motion and one example of how friction might affect the object's motion.)

**Hypothesis:** If \_\_\_\_\_ then \_\_\_\_\_.

**Materials:** \_\_\_\_\_

## **Procedure:**

1. Choose an object that can move.
2. Research the forces (at least 2) that affect the speed of your chosen object and record in your background. Research ways you can increase or decrease the friction that might affect the object's speed and include this in your background as well.
3. Test the speed of your object at least 3 times. Choose appropriate tools and units. Record your trials in a table.
4. Test one of the friction variables. Measure the speed of the object at least 3 times with the new friction and record in a table.
5. Make a graph (line or bar) comparing the average speed of both tests.
6. Present your experiment either on a poster paper, PowerPoint, or Glog. Include:
  - a. Your names, title, period
  - b. Problem, hypothesis, conclusion
  - c. Illustration of materials and procedure (clearly indicate the variable tested)
  - d. Tables and a graph

## **Results:**

Control	Distance	Time
Trial 1		
Trial 2		
Trial 3		
Average		
Speed (d/t)		

Variable	Distance	Time
Trial 1		
Trial 2		
Trial 3		
Average		
Speed (d/t)		

## **Conclusion**

Analyze your results and write a paragraph that includes what you learned from your results and an explanation of the science involved.