

# Effects of Friction

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## How Does Friction Affect the Motion of an Object?

**Hypothesis:** \_\_\_\_\_

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**Materials:** Toy car, ramp, various materials to place on ramp, stopwatch

### Procedure:

- Create a ramp using several books and a board and determine which materials you will place on the board.
- Using the data table below, predict the amount of time it will take the toy car to roll down the ramp with each material in place.
- Roll the car down the ramp without placing any additional materials on the ramp. Time how long it takes for the car to reach the end of the ramp three different times. Record on the data table below.
- Repeat the procedure using various materials to cover the ramp.

### Data:

Material on Ramp	Prediction (seconds)	Actual Time (seconds)			
		1st Run	2nd Run	3rd Run	Average
Plain ramp					

### Conclusion:

Using the data, write a conclusion paragraph answering the following questions. How does friction affect the motion of objects? Which type of material provided the most friction and how do you know? Which type of material provided the least friction and how do you know? Compare and contrast the causes and effects of the different types of friction.

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