

## Lab 4: Friction

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

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

Group Members: \_\_\_\_\_

\_\_\_\_\_

### Objectives

- Understand and define friction
- Observe the effects of friction on an object

### A. Pre Lab Questions

1. What is friction?
  
  
  
  
  
  
  
  
  
  
2. Name the types of friction and give examples of each.

### B. Group Lab

Refer back to Lab 1: Zoooooooom! How Fast is Fast? Using the same materials and procedures, you will repeat the exercise in the parking lot and on the sidewalk.

### Predicting

1. Do you think the car will move faster or slower on the sidewalk than when you did the experiment on the floor? Why?
  
  
  
  
  
  
  
  
  
  
2. Do you think the car will move faster or slower in the parking lot than when you did the experiment on the floor? Why?

### C. Data Collection

#### **Parking Lot**

<b>Trial Number</b>	<b>Distance</b>	<b>Time</b>	<b>Average Speed</b>	<b>Average Velocity</b>
1				
2				
3				

#### **Sidewalk**

<b>Trial Number</b>	<b>Distance</b>	<b>Time</b>	<b>Average Speed</b>	<b>Average Velocity</b>
1				
2				
3				

### **D. Conclusion**

1. Looking at your results, which surface had the highest average velocity?
  
2. How does this compare to your predictions?