

Name \_\_\_\_\_ Date \_\_\_\_\_ Block \_\_\_\_\_

## **Speed Walking Lab**

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**Question:** What is the difference in speeds of the following activities: walking, speed walking, walking backwards, and hopping?

**Purpose:** The purpose of this lab is to practice calculating speed.

**Hypothesis:** Make a hypothesis about the relative speeds of the activities, from fastest to slowest. Don't forget to write it as an "If...then" statement!



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**Materials:** Meter stick, timer, lab notebook, pencil, tape

### **Variables:**

Independent Variable: \_\_\_\_\_

Dependent Variable: \_\_\_\_\_

Control Variables: \_\_\_\_\_

### **Procedure:**

1. Gather your materials! Each team needs 1 timer, 1 meterstick, 1 roll of masking tape, and 1 marker.
2. Create your "race" track!  
Find a spot in the hallway and measure off a 10 meter race track. Use two pieces of tape to mark the beginning and end of your track. Mark each distance (0 m and 10 m) on the tape with a marker.
3. Go for it! Each team member will need to perform the following tasks for each distance: hopping, walking backwards, walking (regular rate), and speed walking. Your team will need people with timers or stopwatches at the 5 meter and 10 meter points. Record the time it takes to perform each task.

*NOTE: Speed walking is going as fast as you can without jogging or running!*

**Data:** Record your data from the experiment in the chart, then use the information to calculate the speed for each task and distance. Round answers to the nearest hundredth if needed. Label your answers! Don't forget the correct UNITS.

Task	Trial 1		Trial 2		Trial 3		Average Speed
	Time	Speed	Time	Speed	Time	Speed	
Hopping							
Walking backwards							
Walking (regular rate)							
Speed walking							

**Graph your average speed.**


**Analysis:**

1. Which task resulted in the fastest speed? What was the speed?

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2. Which task resulted in the slowest speed? What was the speed?

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3. How far could you speed walk in 10 minutes based on the speed for the 10 meter trial? Show your work!

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4. How long would it take you to hop 30 meters based on the speed for the hopping activity? Show your work!

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5. How far could you travel walking backwards in 15 minutes based on the results for the walking backwards trial? Show your work!

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**Conclusion:**

Re-state the purpose, describe whether or not your hypothesis was correct and WHY, explain what you learned about speed, and list TWO possible errors you may have made that affected your results.

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