_____ Date: _____

Science _____ **Speed Challenge LAB**

Question- Which method of movement is the fastest- hopping, walking backwards, walking (regular rate), or speed walking?

Hypothesis:

Step 1: Gather your materials & create your table!
Each team needs a timer, lab paper, and pencil. In the space below, your team must neatly design a data table with the **labels**: Trial 1 (sec), Trial 2 (sec), Trial 3 (sec), Average Time (sec), Speed (m/s) for each of the methods of movement.

Step 2: Find your test track!
There are tracks around the room that are marked off with a starting and ending point. The total distance of the track is 5 meters.

Step 3: Time to move!
Each team member will need to perform the following tasks: hopping, walking backwards, walking (regular rate), and speed walking. You will need to record the time it takes to travel 5 meters for each method of movement.

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

Collect That Data!
Record your data from the experiment in the table, then use the information to calculate the speed for each task and distance. Round answers to the nearest ***hundredth*** if needed. **Label your answers!**

Table 1: _____

Analysis: answer the following questions using **COMPLETE SENTENCES**.

1. Which task and distance resulted in the fastest speed? Did this prove or disprove your hypothesis? _____

_____

_____

2. Which task and distance resulted in the slowest speed? _____

_____

3. Are your results accurate? Explain. How would you improve this experiment? _____

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Calculate: Answer the following questions using the **THREE** step method.

1. How far could you **speed walk** in 10 minutes (600 sec) based on your quantitative data?

2. How long would it take you to **hop** 30 meters based on your quantitative speed?

3. How far could you travel **walking backwards** in 15 minutes (900 sec) based on your results?

4. How long would it take to **walk (regular rate)** 1 kilometer (or 1,000 m) based on your speed?