Name

Date

Hour/Teacher

**Title: Distance Speed and Time Lab**

**Purpose:** We will graph distance and time to calculate speed

**Materials:** Stop watch or phone, measuring tape or wheel

**Procedure:**

1. Students will walk/jog/run for 60 meters
2. Time and distance will be recorded in meters and seconds
3. Students will graph the data

**Data:**

|  |  |  |
| --- | --- | --- |
| Trial #1 | Trial #2 | Trial #3 |
| Distance (m) | Time (s) | Distance (m) | Time (s) | Distance (m) | Time (s) |
| 0m | 0s | 0m | 0s | 0m | 0s |
| 10m |  | 10m |  | 10m |  |
| 20m |  | 20m |  | 20m |  |
| 30m |  | 30m |  | 30m |  |
| 40m |  | 40m |  | 40m |  |
| 50m |  | 50m |  | 50m |  |
| 60m |  | 60m |  | 60m |  |

Results: 1.Create a distance vs time graph with a different colored pencil for each trial on the same graph.

Distance vs. Time Graph

 

Time (s)

Distance (m)

2. Use the graph to calculate Speed by calculating slope of each line.

Find the slope of each line $slope=\frac{rise }{run}=\frac{d}{t}=\frac{m}{s}=speed$

**Conclusion:**

Questions-

1. Which trial had the fastest speed? What was it?
2. Which trial had the slowest speed? What was it?
3. Look at the slopes of the 3 lines, can you tell just by looking which was faster? How do you tell? Explain.
4. What were your 3 different speeds? Were you walking, jogging, running, slow jog, fast walk?
5. Explain how to calculate speed with a distance vs. time (d/t) graph.
6. Explain how you might check if your car’s Speedometer is working-what experiment could you do?
* Write a Summary Paragraph- (5 sentences at least) explain what you learned
* Write a Response Paragraph- (5 sentences at least) explain what you think about what you learned; what it reminded you of, how you might use it in the future.