

Resistance in a Wire PhET Lab

Today, you will use the Resistance in a Wire PhET Simulation to explore how the resistance of a wire is affected by its length, area and resistivity

Beginning Observations

1) Open the “Resistance in a Wire” PhET simulation. What does each symbol stand for in the equation on the screen?

Determining a Mathematical Model for Resistance of a Wire

Develop a method for verifying the equation on the screen using the PhET simulation. In order to verify the equation, you will need to conduct at least three experiments. Graph your data and write a statement of explanation for each graph. Think about – What does the graph represent? Are the physical variables graphed directly or indirectly proportional? Write a short conclusion (less than 6 sentences) which summarizes your finding citing your data and graphs as evidence for you statements.