

PhET – Simulated DC Circuits “Lab” – How realistic?!

1. Goal: Determine the “necessary” diameter of the wires if assumed to be copper.
2. Set resistivity control all the way to the left (tiny).
3. Design an experiment based on observed resistance to determine the diameter of the wires and assess whether or not the material is ohmic.
4. Assume the batteries are standard AA cells (with magical voltage!), which have length precisely 5.00 cm and outer diameter 1.35 cm.
5. Time permitting: Try activating battery resistance – how does the number of ohms manifest itself in the circuit
6. Time permitting: How realistic are the light bulbs?