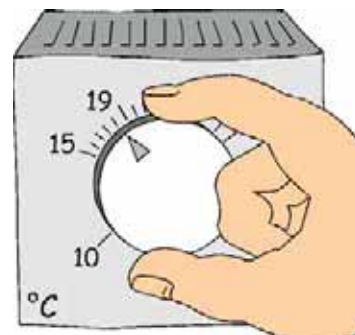


Lab: Ohmic Materials, Part One

There are some materials that conduct electricity so that the *current* that flows through it is *linearly proportional* to the applied *voltage*. Such a material is called “Ohmic”. If you know that a material is Ohmic, you can tell what the current is just by knowing how much voltage you are applying. Predictability is important for certain electrical hardware.



Questions: *Is an electrical resistor Ohmic? Is a light bulb Ohmic?*

This week you will focus on **data-collecting**. Make sure to collect enough to data so that next week you can *prove* whether or not these materials are Ohmic.

Before you begin, present a plan of how you’re going to carry out this experiment and how much data you’re going to take, i.e. how many trials and data points you will collect.

Timetable

I. Pre-lab Discussion	10 min	Whole class
II. Planning the Experiment	20min	Groups of 4
III. Data Collecting	40 min	Groups of 4
IV. Class Discussion	25in	Whole Class
V. Writing the Report	15 min	Groups of 4