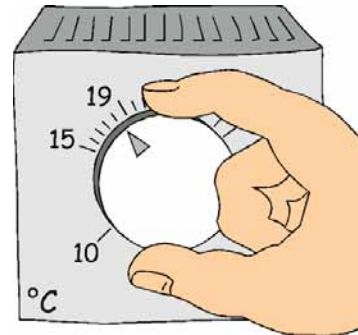


## Lab 7: Ohmic Materials, Part One

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