WHAT YOU’LL DO:

Electricity and magnetism are best buddies. Magnets can be used to make electricity, and electricity can be used to magnetize objects. Essentially, everything that operates via electricity gives off its own small magnetic field, and when the object is unplugged, the magnetic field stops.

Voltage is the muscle behind a current, pushing electrons along a circuit so that we can use electricity. If the circuit is broken, the electrons cannot travel and poof — no more electricity.

WHAT YOU NEED:

In this exercise you’ll combine these three items to form an electric current and light the lightbulb:

- A battery (D or C)
- Aluminum foil (a 12-inch by 4-inch strip)
- A flashlight bulb (from the hardware store)

WHAT YOU’LL DO:

1. Try to use these items to create a circuit. Try to figure it out yourself first! Go away, and come back in a few minutes. (Stop reading!)

NEED A HINT?

Squish your aluminum foil to form a thick cable. Continue to try to figure it out yourself.

The Solution:

Observe! This is just what scientists do! Try it, and then write down what you happen if you flip the battery. Try it, and then write down what you happen if you flip the battery. The bottom of the light bulb should be placed on the positive and the negative end of the battery. What happens if you flip the battery? Try it, and then write down what you happen if you flip the battery.

Were you successful? Here’s how you do it: One end of the foil should be connected to the positive end of the battery, and the other end should be connected to the negative end of the battery. What happens if you flip the battery? Try it, and then write down what you happen if you flip the battery.