5th Grade - Electricity, It's a Snap
Leader Script

What do lightning, a flashlight, an alarm clock battery and a toaster have in common? (allow for a couple answers) They are all powered by a form of energy called **Electricity.** Today you are all going to learn more about electricity. You will build parallel and serial circuits as well as an electromagnet and test to see if items are conductors or insulators.

Who knows who invented electricity? (allow for a couple answers) Well, that was a trick question because electricity was not really invented it was discovered. You see, electricity occurs naturally in nature. About 270 years ago Benjamin Franklin discovered how to use it. He performed his famous kite experiment which proved that electricity & lightning were the same thing. So be careful around electricity as we all know that lightning can be dangerous. Who discovered the light bulb? (allow for a couple answers) Oops tricked you again … the light bulb was invented by Thomas Edison.

In order to understand electricity you must understand atoms. Everything is made up of atoms. They are very, very tiny particles. What is an atom made up of? (allow for a few answers). Yes, atoms are made up of a protons, neutrons, and electrons. The nucleus contains protons and neutrons. Orbiting around the outside are electrons. Electrons carry a negative charge. **Electricity happens when electrons get temporarily taken away from an atom. Electricity is a form of energy produced by the movement of electrons.**

There are 2 types of electricity…static and current. **Static electricity** involves the build up of electrons, which stay in 1 place until they jump to another object. It does not need a circuit. You can feel it as you drag your feet across the floor. Lighting is a type of static electricity that occurs on a large scale. **Current electricity involves** a steady flow of electrons between objects. That is what we have in the lab today. It needs a conductor. Who knows what a conductor is? (allow for a couple of answers). A **conductor** is a substance that allows electrons to move freely…like metals. Conductors are things like wires that can move electricity through your home. Current electricity also