



Activity 2: The Power of Electrons

How can I see the power of electrons?

Materials

- plastic straw or spoon
- kitchen or bathroom water tap
- cloth, sweater, or sock made of cotton or wool
- Power of Electrons Table
- tiny pieces of light paper (such as newspaper)
- various light items (sprinkle of flour, grains of salt, strands of pet or human hair, tiny pieces of plastic bag, or anything else similar)

Instructions

1. In the next steps, you will do tests to see if you can create an electrical charge on household items. For everything that you test, record what happened, as well as why you think it happened, in the *Power of Electrons Table* located at the end of the document.



2. Hold the plastic straw on one end, and rub the other end lightly and quickly with a cotton or wool cloth for about a minute.

3. Turn on a water tap so that only a very small, thin stream of water is flowing.

4. Slowly bring the straw close to the water without touching it. What does the water do? If the water does nothing, rub your straw with the cloth again for a minute and try again. In the *Power of Electrons Table*, record what happened and why you think it happened.



5. Tear some light paper into very tiny pieces and place them on a table. Rub your straw with the cloth again for a minute. Now, slowly bring the straw close to the pieces of paper. What do the pieces of paper do? If the paper does nothing, rub your straw with the cloth again for a minute and try again. In the *Power of Electrons Table*, record what happened and why you think it happened.

6. Repeat Step 5 with at least three other light items you find around your home, such as a tiny bit of flour, some grains of salt, a few pet hairs, baby powder, tiny cut-up pieces of a plastic bag, or whatever else you can think of. Between each item, be sure you rub your straw with the cloth. In the *Power of Electrons Table*, record what happened and why you think it happened.

Powers of Electron Table		
Item Tested	What Happened?	Why Did it Happen?
stream of water		Hint: When an item is rubbed electrons may be transferred to it giving it a charge. To what are charged items attracted?
pieces of paper		Hint: When an item is rubbed, electrons may be transferred to it giving it a charge. To what are charged items attracted?
