Experiment with Salt Water Conductivity

Did you know salt water can conduct electricity? Try building a small circuit with your child to test in fresh and salt water! As you build, your child will learn about conductivity and electricity in a hands-on way.

What You Need:

- 9V battery
- 2 popsicle sticks
- Glass of water
- Glass of salt water
- Masking tape
- Foil
- Buzzer (buy at hobby or electronics store)

What You Do:

1. Instruct your child to wrap the popsicle sticks in foil.
2. Tape the buzzer's red wire to the battery's positive (+) end.
3. Put one of the foil sticks on top of the black wire. Tape these together. Tape the other stick to the battery's negative (-) end.
4. Touch the two sticks together! Does the buzzer make a noise? If not, check again to see if everything has been taped.
5. Have your child put the tips of the foil sticks into the glass of salt water. Have him put them an inch apart so that they aren't touching. Does the buzzer go off? The salt in the water connects and completes the circuit!
6. Repeat step 5 in fresh water. What's the difference?

What Happened?

In the salt water, the salt breaks down into little "ions" that conduct electricity. Since fresh water doesn't have salt, it can't conduct electricity.