SALT CIRCUIT

Use salt, glue, and watercolors to create a simple circuit that can light up an LED, showing how electricity can travel through different materials.

Materials

Watercolor paper or cardstock
Scissors
Watercolor
Paintbrush
White glue
LED light
9V battery

INSTRUCTIONS:

STEP 1: Gather all the supplies needed.

STEP 2: Cut the paper in half.

STEP 3: Draw a squiggly line with the glue from the bottom of the paper to the top, ending at the edge. (Make sure the glue on both pieces of paper comes to the edge).

STEP 4: Sprinkle on a layer of salt on top of the glue.

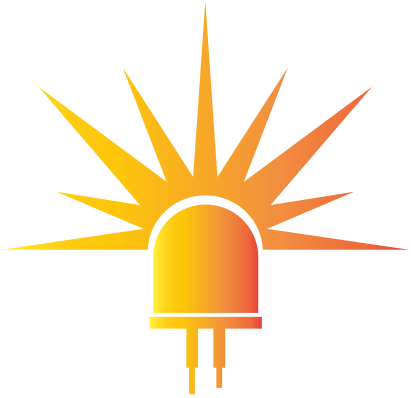
STEP 5: Shake off the excess salt.

STEP 6: Add watercolor to the salt.

STEP 7: At the top of the paper insert the LED light into the salt/glue.

STEP 8: At the bottom of the paper touch the 9V battery.

STEP 9: Watch as the LED light lights up!



THE SCIENCE

The electricity moves from the battery to the LED light bulb. The battery is the power source, and the salt and water are the conductors, helping the electricity move to the LED light bulb closing the loop. The LED light is the device that uses the electrical energy, turning it into light.

The glue line with salt makes a pathway for the electricity. When the glue is wet and the salt absorbs the water, it creates a channel where electrons can move.

Salt Circuit Observations

Use this worksheet to process and evaluate your work.

Why might the LED need the line to be wet to work?

What role do you think the salt plays in this activity?

What might happen if the glue line dries? Explain your reasoning.

Add a second line that is thicker/thinner. Which lights the LED better?

In your own words, describe how this artwork also became a simple electrical circuit.


Glue
Dries Clear, Fast & Strong!
No Harmful Fumes!
FOR MEDIUM SIZED DETAILS