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## Electricity & Circuits Activity for Kids

### Coin Battery DIY



Duration: **30 min**



Difficulty: **Medium**



Cost: **\$0 to \$10**

Learn how to make a battery out of coins to power an LED!

### Material List

- 1 Teaspoon of salt
- 1 Cup of water
- 1 Red LED light
- 6 Pennies
- 6 Zinc washers
- 1 Bowl of  $\frac{1}{4}$  Cup of Vinegar
- 1 Piece of Construction Paper
- 1 Pen
- 1 Pair of scissors

### Instructions

- 1 In a bowl, mix 1 teaspoon of salt into  $\frac{1}{4}$  cup of vinegar.
- 2 Soak the pennies in the salt/vinegar mixture for 5 minutes, then wipe them off.
- 3 Trace pennies on construction paper and cut them out to make 6 paper discs.
- 4 Soak the paper disks for 5 min in a mixture of 1 cup of water and 1 tablespoon of salt.
- 5 To assemble the battery, stack the items in this order: coin, paper, washer, coin, paper, washer, and so on.
- 6 Hold the LED light's long wire to the penny side of the stack, and the short wire to the zinc side of the stack.
- 7 Dim the light and your LED should light up!

### How It Works

In this DIY you made a battery! Batteries convert chemical energy into electrical potential energy. That energy can be used to power a circuit, or in our case, an LED light. The more stacks there are, the higher the voltage of the battery and the brighter the light will be. The difference between a 1.5-volt battery and a 9-volt battery is how many stacks of chemicals they have inside.