



Watch Video

# 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

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

### Instructions

-  In a bowl, mix 1 teaspoon of salt into  $\frac{1}{4}$  cup of vinegar.
-  Soak the pennies in the salt/vinegar mixture for 5 minutes, then wipe them off.
-  Trace pennies on construction paper and cut them out to make 6 paper discs.
-  Soak the paper disks for 5 min in a mixture of 1 cup of water and 1 tablespoon of salt.
-  To assemble the battery, stack the items in this order: coin, paper, washer, coin, paper, washer, and so on.
-  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.
-  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.