

LET'S DO CHEMISTRY

Build a Battery



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Observe the flashlights

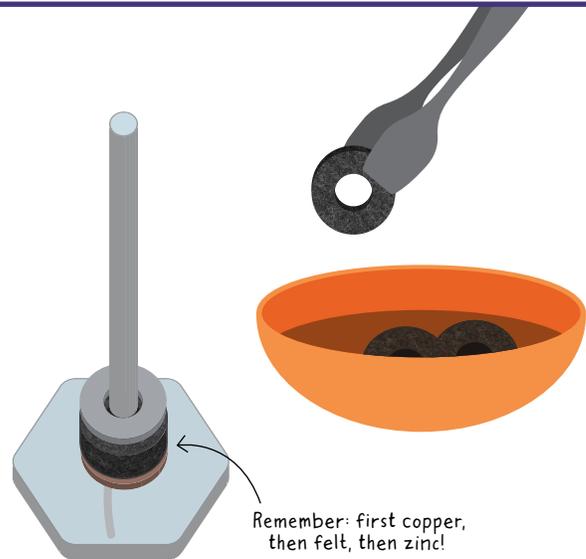
Turn both flashlights on and off. What do you observe? How are they different? Why do you think one turned on but the other didn't? *Hint: Peek inside the flashlights!*

Build a battery

First, slide a copper washer (the first copper washer should have a wire already connected to it) onto the clear acrylic rod.

Use the tongs to take a felt washer out of the bowl and give it a gentle squeeze, then slide the washer onto the rod.

Finally, add a zinc washer to the rod to make a stack. Repeat this pattern as many times as you want (or until you run out of materials).

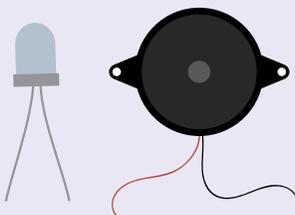
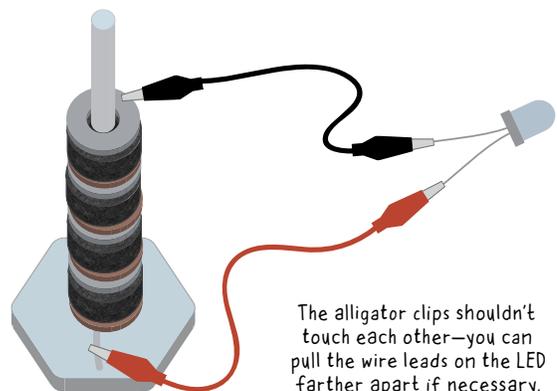


Test your battery

Choose the LED or the buzzer. Use a clip to attach the wire coming off the bottom copper disk to the longer wire lead of the LED or to the buzzer's red wire.

Attach the other wire to the shorter wire lead of the LED (or to the buzzer's black wire).

Touch the remaining end of the clip to the zinc washer at the top of the battery pile. What do you notice?



Let's keep experimenting! Try connecting the other object (buzzer or LED). Do you need to add more washers? Can you make the light brighter or dimmer? Can you make the buzzer softer or louder? What happens when you try using felt washers that are more or less soaked with vinegar? What other changes can you make to these materials?