creativitylab

LIGHTHOUSE COMMUNITY CHARTER SCHOOL

Paper Circuits

1st–12th Grade

1 Hour

MATERIALS

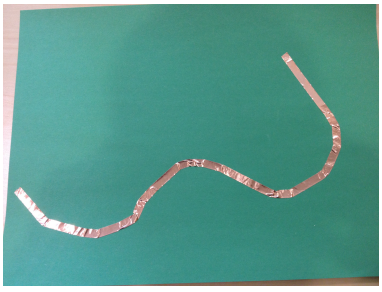
- Copper Tape
- Aluminum Foil
- Paper
- 3V Coin Cell Batteries (CR-2302)
- Scotch Tape
- LEDs (3mm or 5mm)
- Binder Clips

Paper Circuits use simple materials to safely engage students in basic circuitry, and help them visualize the flow of electric current. (For a more in-depth look at paper circuits, see our complete paper circuit project guide.)

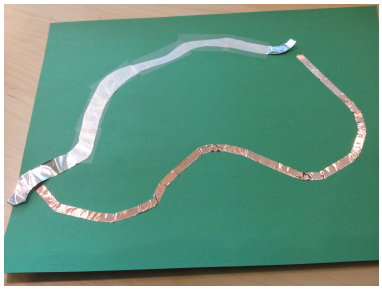
E-mail us at creativitylab@lighthousecharter.org

To Build A Paper Circuit...

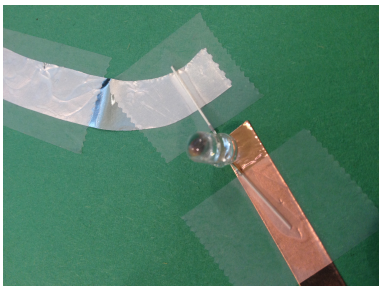
1. Make a trail of copper tape on the paper. Remove its backing to make it stick. Be creative in your shape.
2. Make a second trail using aluminum foil. Secure it to the paper with scotch tape, but leave the last inch or so of each end free. The two paths should nearly meet at one end, and overlap at the other.
3. Use an LED to bridge the gap between the two trails. Bend the LEDs leads, and tape them firmly in place.
4. Sandwich the battery between the two trails at the other end. If the light does not shine, flip the battery over. (The positive lead of the LED must connect to the positive terminal of the battery, and the negative lead to the negative terminal.) Optionally, use a binder clip to secure the battery in place.



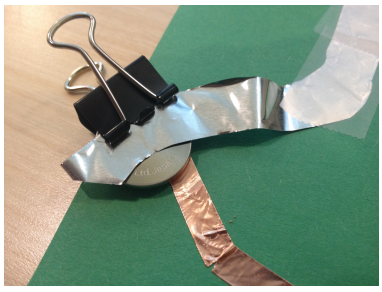
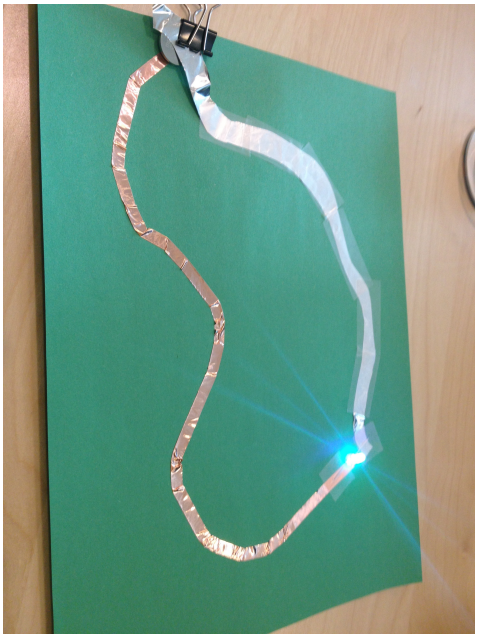
1.



2.



3.



4.