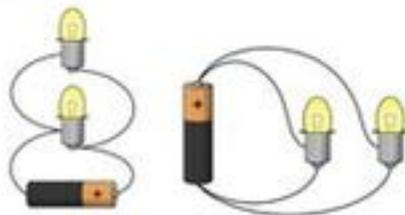


BUILDING ELECTRIC CIRCUITS

MAKE A PARALLEL CIRCUIT



Supplies to Use

Choose a Power Source



Choose a Light



MEASURE ELECTRICITY

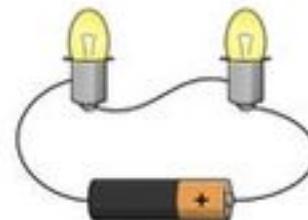


Supplies to Use



Instructions: A multimeter is a tool to measure electricity. It measures volts (V), currents (A for ampere) and resistance (Ω for ohms - Greek symbol for omega). Attach a multimeter in a series or parallel circuit to take measurements. The red

MAKE A SERIES CIRCUIT



Supplies to Use

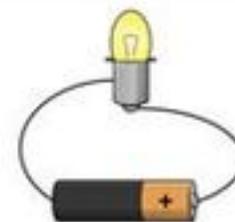
Choose a Power Source



Choose a Light



MAKE A SIMPLE CIRCUIT



Supplies to Use

Choose a Power Source



Choose a Light

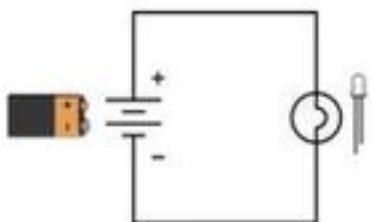


Choose a Connector



Instructions: A simple electrical circuit is a path through which electricity will flow. It is closed at each end making it a loop. Create your own simple circuit using

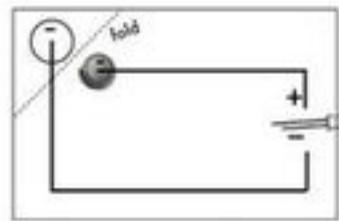
MAKE A GRAPHITE CIRCUIT



Supplies to Use



MAKE A PAPER CIRCUIT



Supplies to Use



Instructions: Use paper, copper tape, a coin cell battery, and an LED light to create a simple circuit. The two sides of the tape

MAKE A CIRCUIT WITH LEMONS

Instructions: Use an LED light, 4 lemons, 5 alligator clips, 4 zinc nails, and 4 pieces of copper wire to create a circuit that turns on a light! Roll the lemons on a hard surface to break apart the juice packets. In each lemon, place a nail on one side and a piece of copper wire on the other. Make sure they do not touch each other. Connect the nail on one lemon to the copper wire on the lemon next to it. Continue this pattern in a circle except for the last two. For the last two, one clip will connect to a copper wire on one end and the light on the other. The other clip will attach to a nail on one end and the other side of the light on the other end.

Supplies to Use



MAKE A CONDUCTIVITY TESTER

Instructions: Using 3 alligator clips a battery pack and a light, create a conductivity tester to test if items are conductive or not. Connect a battery clip to each wire of the battery pack. Red is positive and black is negative. On one side attach a light and another alligator clip, making sure to match positive and negative sides. The short wire on the light is negative and the long wire is positive. Between the other two alligator clips, test different items to see if they are negative or positive. It will make a large circle of wires with one opening. Clip each wire to the item you are testing. If the light turns on it is conductive, if it does not, it is an insulator.

Supplies to Use



Variety of suggested items to test: