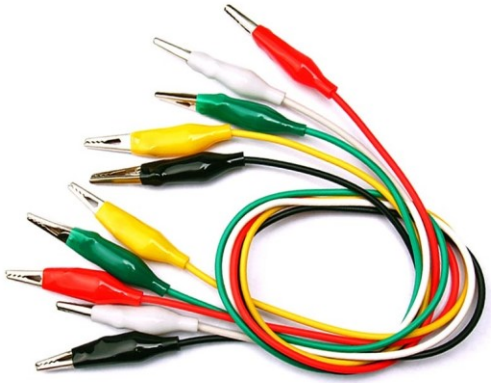
Let's Make a Lemon Battery

Materials



Wires

Lemons

Copper Nails

Zinc Nails

Voltmeter

LED

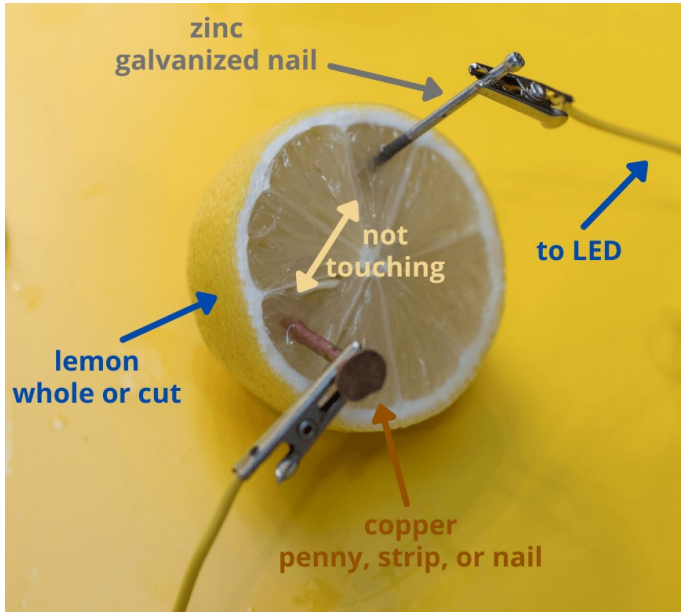
Here are the materials we suggest for making a lemon battery.

Lemon Battery

Roll the lemon on a hard surface to release juices inside the lemon needed for the battery to work!

Lemon Battery

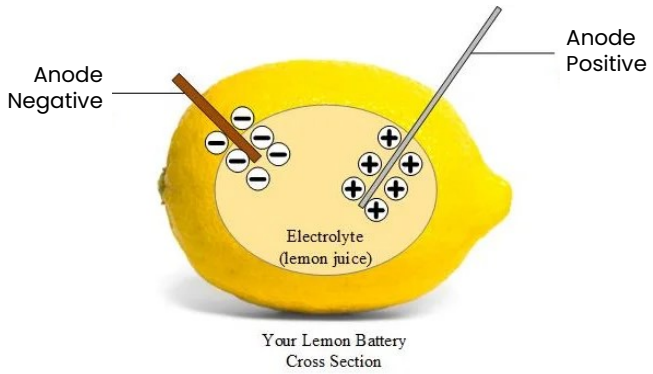
Push your copper and zinc nails into your lemon opposite each other. Place them as close together as possible.



Make sure the copper and zinc nails don't touch on the inside or outside of the lemon. If they touch, the battery will short, and the circuit won't work.

Lemon Battery

The two metal components are the electrodes, parts of a battery where electrical current enters and leaves the battery.



The electron flow is out of the copper nail (+) and into the zinc nail (-) through the acidic juice inside the lemon and back to the copper nail.

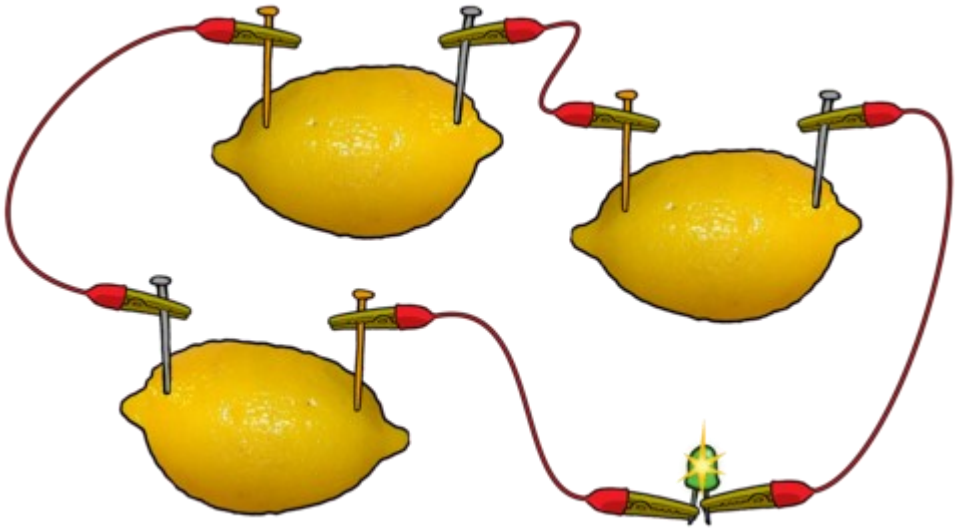
Lemon Battery

Attach a voltmeter to the lemon battery. Place the red clip to the copper nail and black clip to the zinc nail.

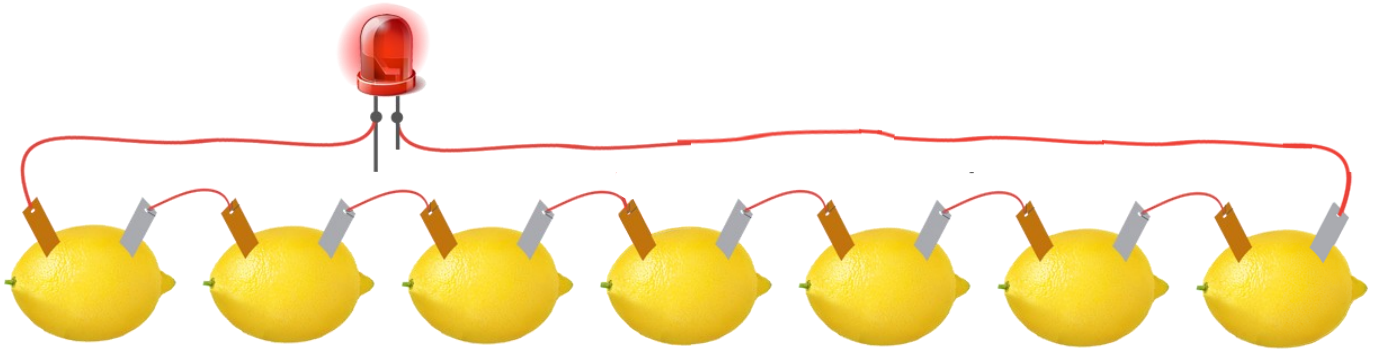
The voltmeter will read the voltage created by the lemon battery.

Lemon Battery

It is very likely that you will need to connect multiple lemon batteries in series to get the voltage you will need to light a LED with lemon power.



Lemon Battery



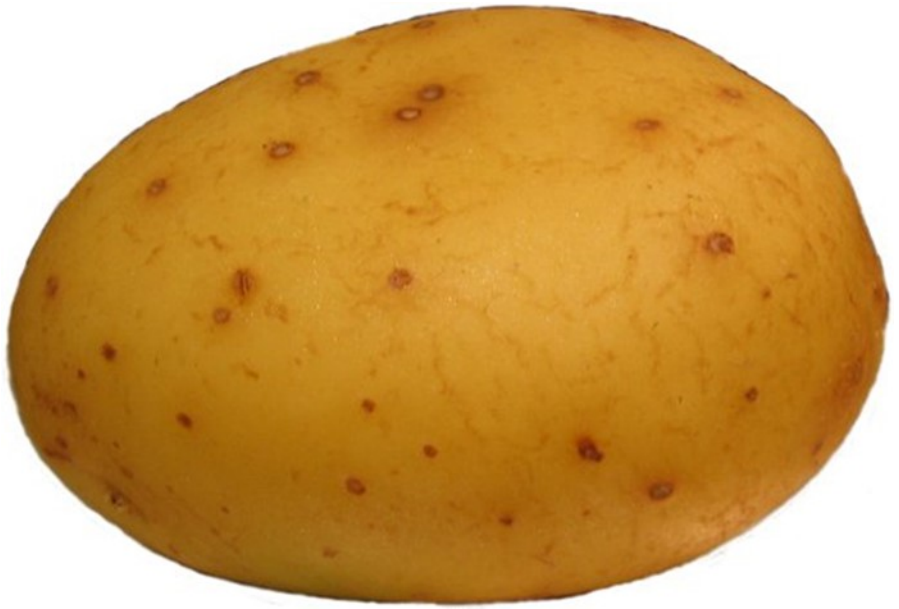
Connect as many lemons together as needed by attaching the copper nail from one lemon to the zinc nail from another lemon and so on. Connect the long pin(+) of the LED to the copper nail and the short pin (-) of the LED to the zinc nail of the lemon battery.

Lemon Battery

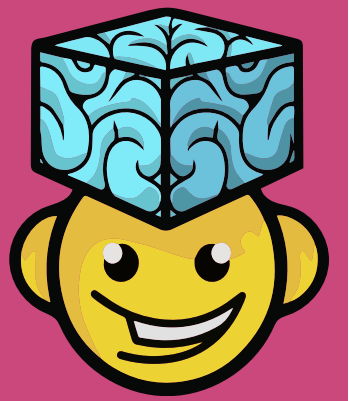
What is the highest voltage you can get from lemons in series?

Are there other vegetable that will work? Can we use potatoes? Can we use bananas? What other vegetable can we use and do we know why?

Can we figure out what the common thread is between all of the vegetables and fruits that will produce power?



SQUARE BRAIN
Lemon Battery



https://www.wikihow.com/Create-a-Battery-from-a-Lemon
One of the sources used.