

Conduct the Lemon Battery experiment and then answer the questions that follow. If you need assistance answering the last three questions, go to the Lemon Battery experiment on the Hila Science Camp website at:

http://www.hilaroad.com/camp/projects/lemon/lemon_battery.html

What voltage did you record?

The website achieved about 0.9 volts, but this will vary.

What voltage did you record for a second lemon battery hooked up in series?

The voltage should approximately double.

What characteristics of the lemon, nail, and penny could be made to increase the voltage?

A juicier or more acidic lemon, a less tarnished nail and penny will increase the voltage.

What characteristics of the lemon, nail, and penny could be made to decrease the voltage?

The converse: a drier, less acidic lemon, a more tarnished nail and penny will decrease the voltage.

Could a lemon battery power a light bulb?

Only a very small light bulb. But theoretically, enough lemons wired together in series could power a light bulb.