

Lemon Batteries Worksheet

Names _____

What is the power output of your lemon battery?

1. Using your multimeter, what is the voltage of your lemon battery in *volts* (V)?
2. Using your multimeter, what is the current that your lemon battery produces in *amps* (A)?
3. Using the following equation, what is the power output of your lemon battery (it will be in *watts*, W)?

$$\text{voltage} * \text{current} = \text{power}$$

How many lemon batteries does it take to.....?

1. Link your group's batteries with other group's batteries. What is the best way to link the batteries together so that they produce the most power?
2. How many lemon batteries are needed to light up an LED?
3. A cell phone uses about 1.5 W when in talk mode. How many lemon batteries would we need to power a cell phone?
4. A laptop uses around 25 W when in use. How many lemon batteries do we need to power that?
5. The Chevy Volt batteries can supply 30,000 W. How many lemon batteries would we need to deliver that?