

## Circuit Definitions 1



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<https://learning-center.homesciencetools.com/article/circuit-science-projects-for-elementary/>

There are four crucial definitions for how to understand an electric circuit.  
Each of these is a quantity:

- Voltage
- Resistance
- Current
- Power

<b>Voltage:</b>
How hard an electron is <i>pushed</i> around a circuit. The push (voltage) is provided by the battery.
<b>Resistance:</b>
What is blocking/slowing down electrons from moving around the circuit. The light bulb is providing <i>resistance</i> in this circuit.
<b>Current:</b>
How fast and how many electrons move around the circuit. More voltage and less resistance give more current.
<b>Power:</b>
How fast the circuit converts energy from the battery to the output (the light bulb). Determines how bright the bulb is.

## Circuit Definitions 1

Fill in the blank

Word Bank:

voltage	resistance	current	power
battery	light Bulb	electrons	brighter

1. The resistance of the circuit is provided by the \_\_\_\_\_.
2. The current tells you how fast the \_\_\_\_\_ are moving.
3. If you have more power, the light bulb is \_\_\_\_\_.
4. How fast the circuit converts energy from the battery to the light bulb is called the \_\_\_\_\_.
5. How hard the electrons are being pushed is called the \_\_\_\_\_.
6. To tell how fast the electrons are moving and how many electrons are moving, you need to know the \_\_\_\_\_.
7. The voltage of a circuit is determined by the strength of the \_\_\_\_\_.
8. What is blocking and slowing down electrons is called the \_\_\_\_\_.

### True or False?

9. The resistance tells how fast the circuit converts energy.
10. The current shows how fast protons are moving.
11. The light bulb provides resistance to the circuit.
12. The light bulb provides voltage to the circuit.
13. The current shows how fast electrons are moving.
14. More current means the bulb will be less bright.
15. The power shows tells how fast the circuit converts energy.
16. The battery provides voltage to the circuit.

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### **Answers:**

- 1.** light bulb
- 2.** electrons
- 3.** brighter
- 4.** power
- 5.** voltage
- 6.** current
- 7.** battery
- 8.** resistance

- 9.** false
- 10.** false
- 11.** true
- 12.** false
- 13.** true
- 14.** false
- 15.** true
- 16.** true