



# Circuits and Conductors

Learning Objective:

To investigate circuits and their different components.





**What is  
electricity?**



**How many  
things can you  
think of that  
use electricity?**

**Think, pair, share your ideas.**

**BACK**



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# Things that use electricity:



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**Electricity is a form of energy which can build up in one place (static electricity) or flow to another (current electricity). Everything in the universe is made up of atoms. Inside each atom are protons and electrons which carry electric charges. When atoms are rubbed together or when they move, they generate electricity.**



**Static electricity occurs when energy is transferred between atoms. This picture shows a girl touching a static electric generator. She receives a huge static charge which makes her hair stand on end. You can try the same thing by rubbing a balloon on your hair for a few minutes.**

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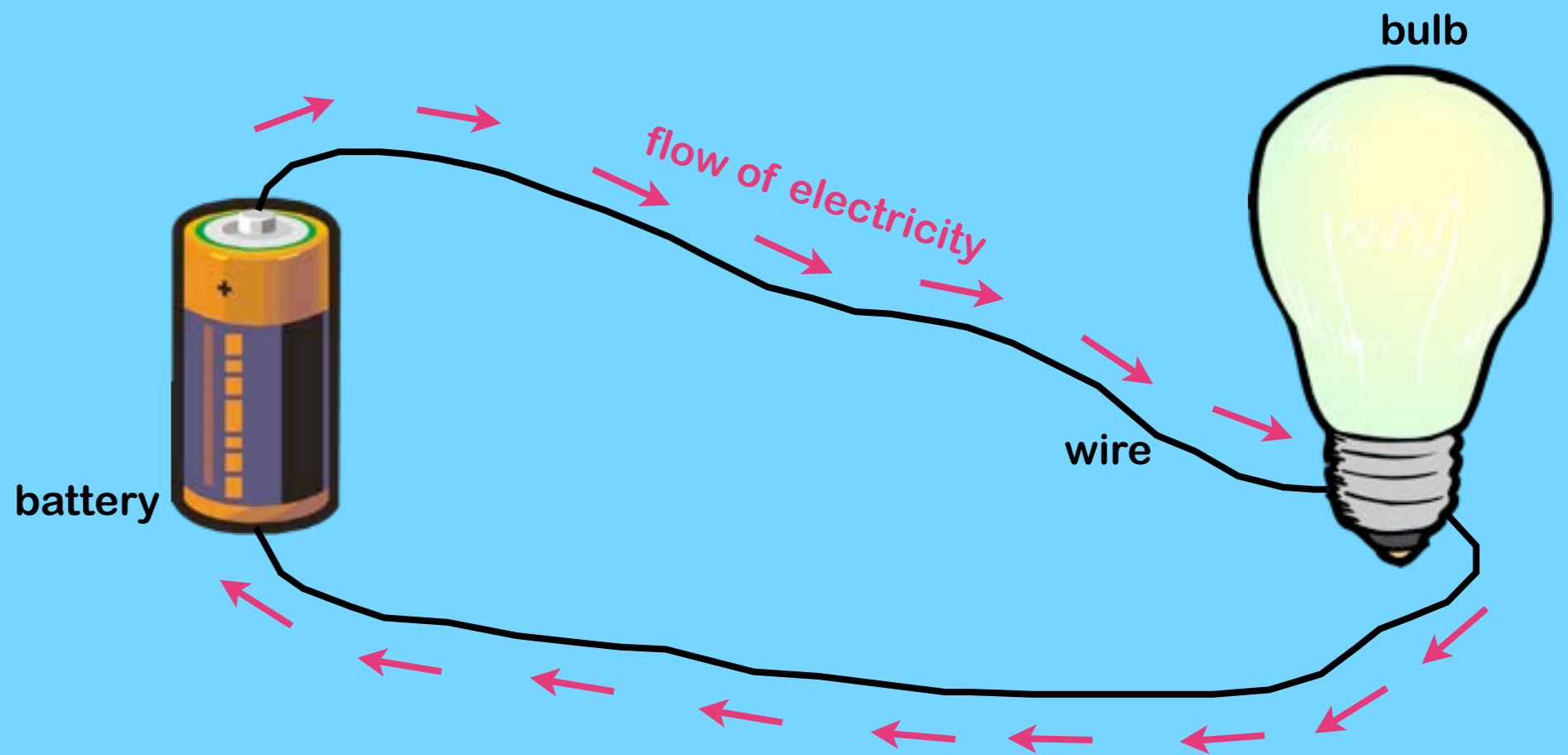


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Current electricity is the electricity that makes appliances like lights, televisions and washing machines work. In order for current electricity to work it needs a circuit. If the circuit breaks, the electricity cannot flow and the appliance will not work. Circuits also need a power source.

This diagram shows a simple circuit. Which part of the circuit provides the power?



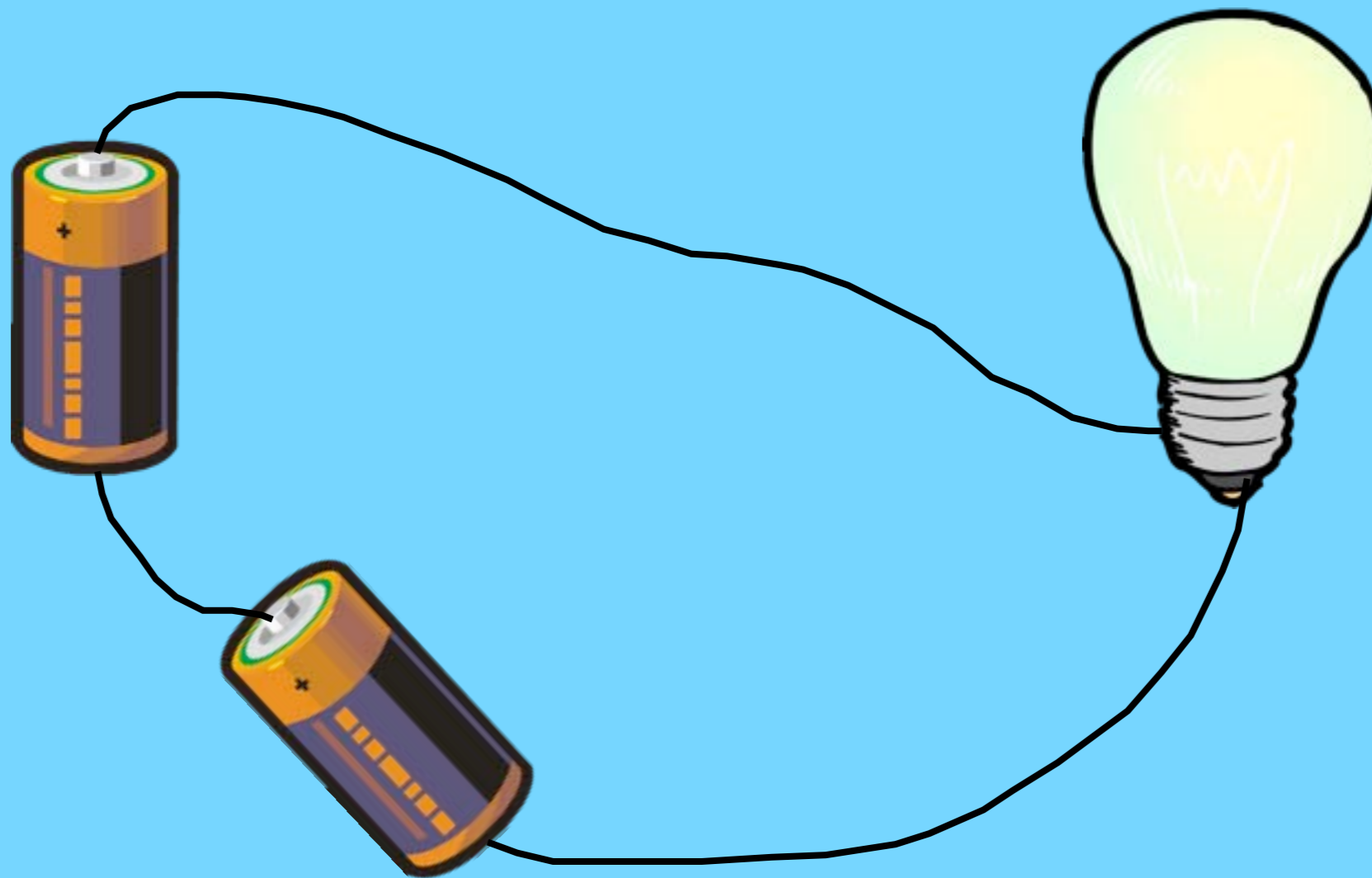
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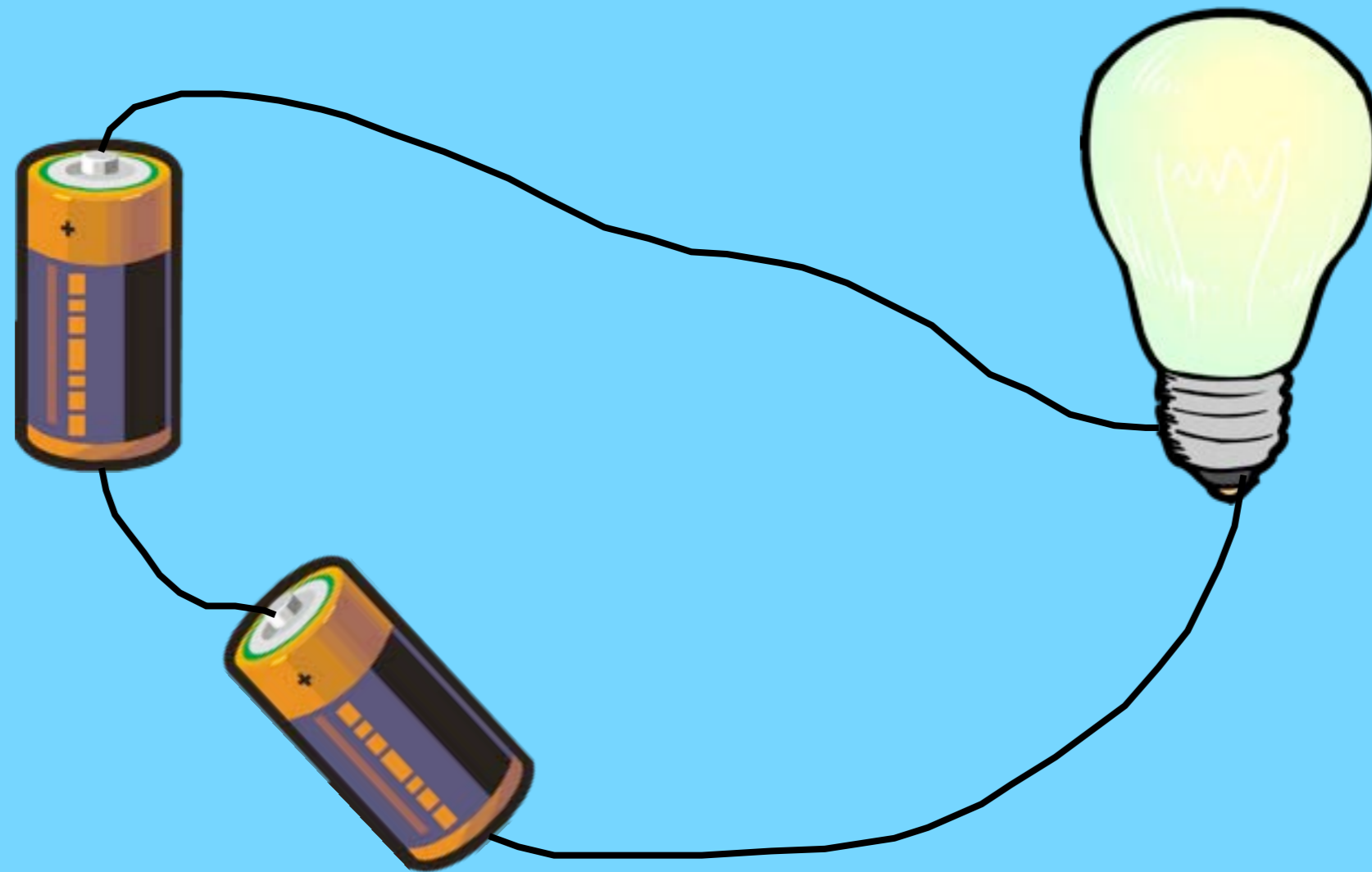
Here is another example of a circuit. Do you think this circuit will work? Why or why not?



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**This circuit will work because there is a complete circuit for the electricity to flow around. The wires are connected to the metal part of the bulb and the wires are connected to both the positive and negative sides of the battery.**

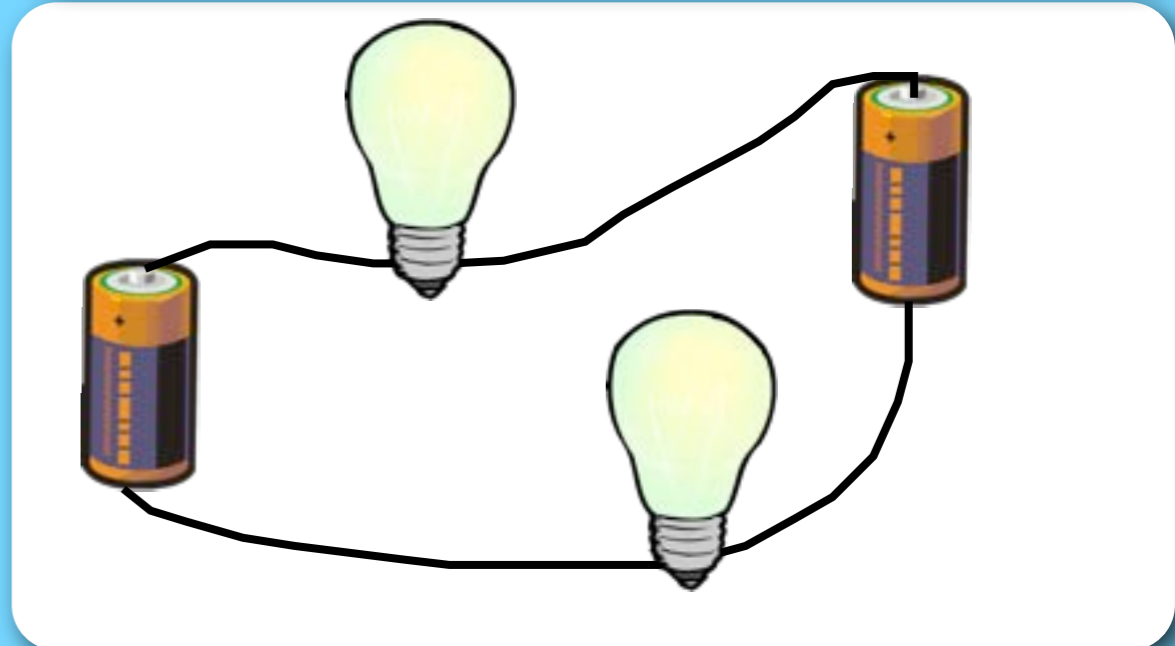
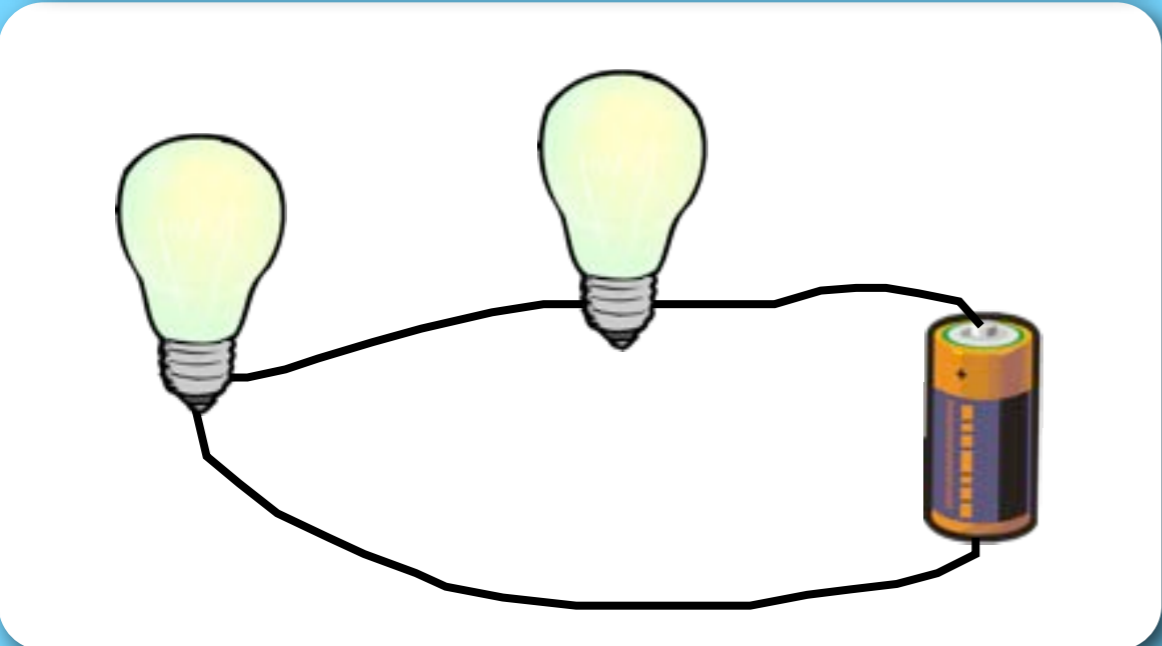
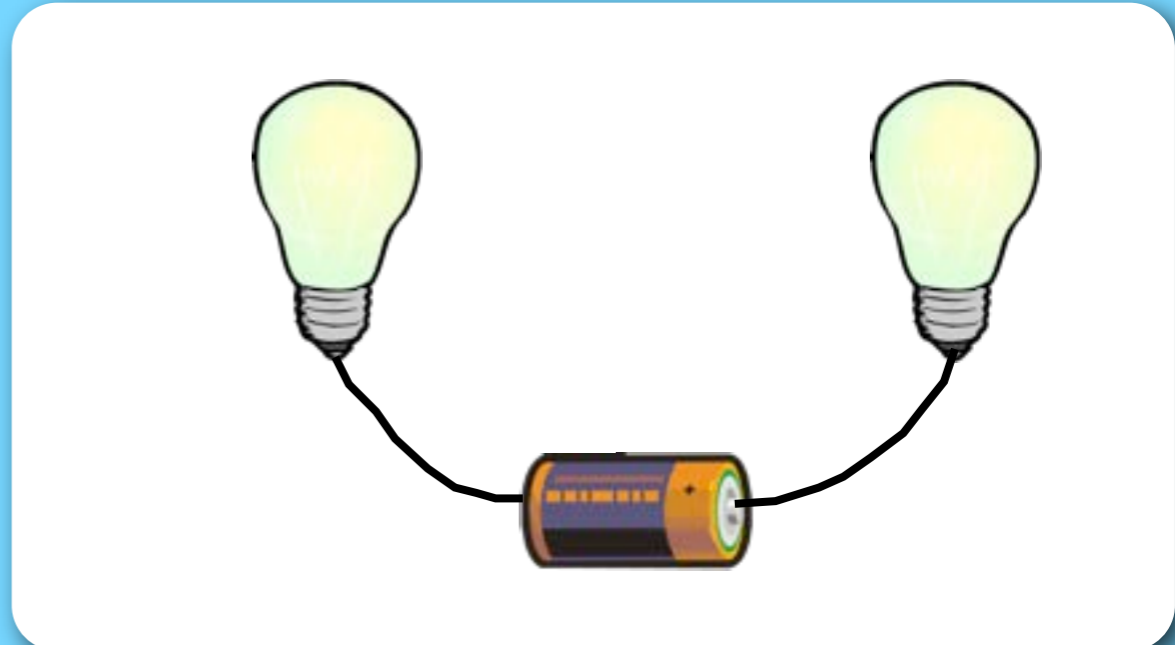
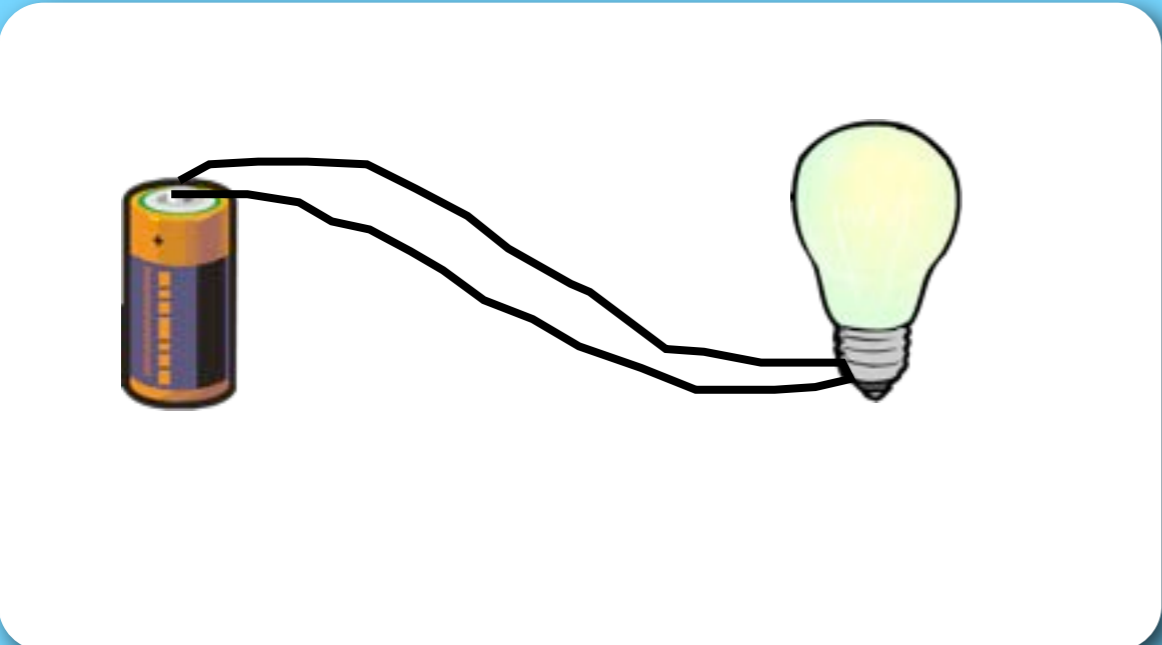
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**Which of these circuits do you think will work and which won't? Give reasons for your choices.**



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