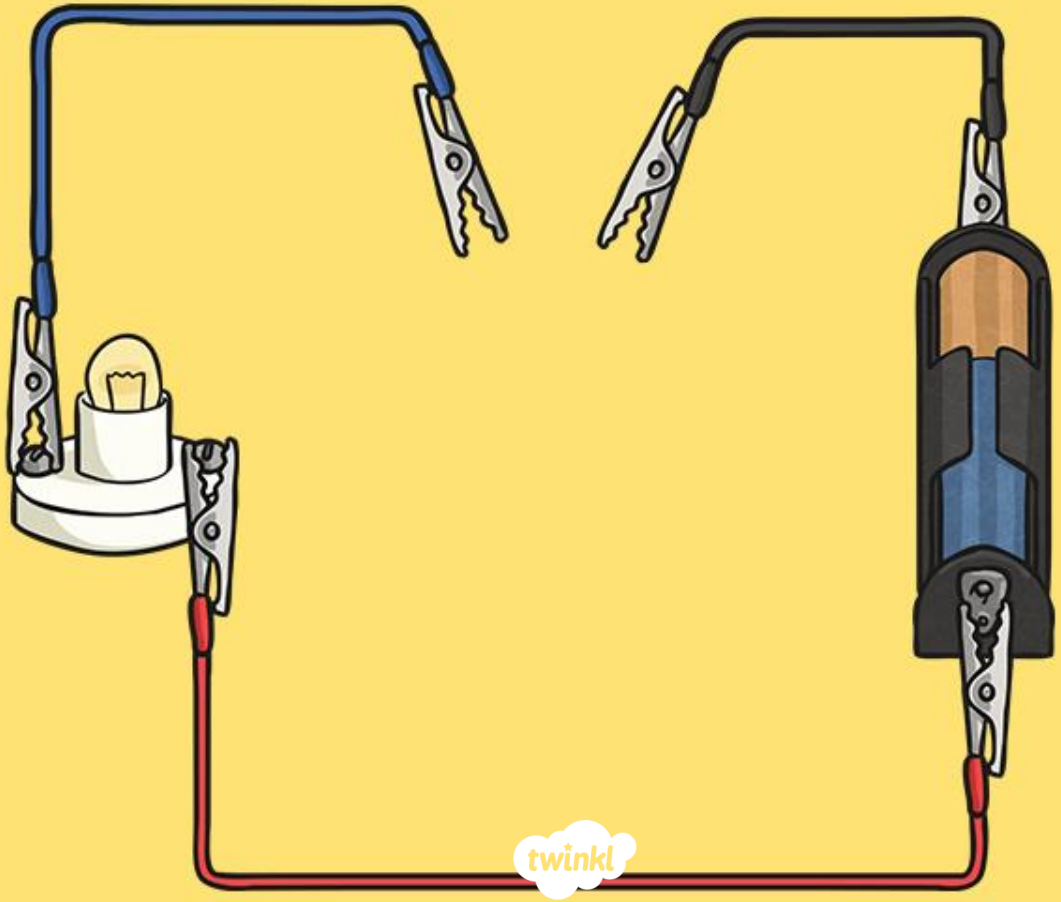
Science

Electricity

Electrical Circuits



Aim

- I can predict and test complete and incomplete circuits.

Success Criteria

- I can identify what makes a circuit complete.
- I can follow instructions to set up circuits.
- I can identify complete and incomplete circuits.

Electricity

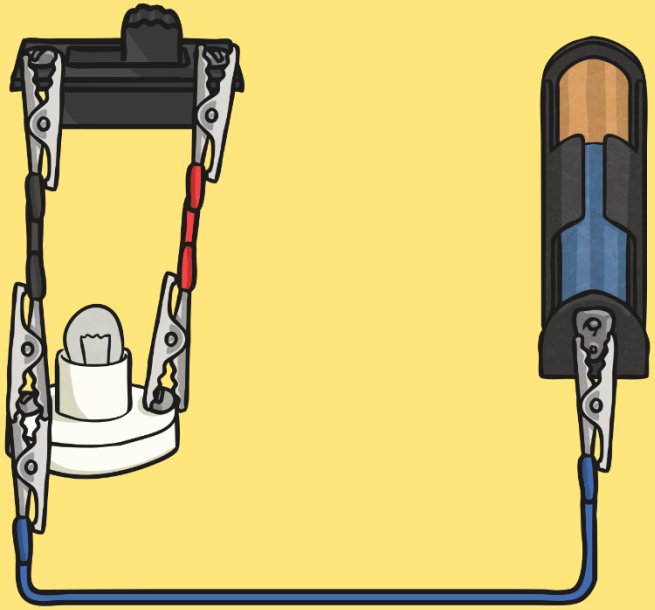
Discuss the following questions about electricity with your partner.
Click each answer box to reveal the answers!

Can you give an example of how electricity is found naturally?	**Lightning, static electricity and bioelectricity.**
What is 'current electricity'?	**The flow of electrical charge through a material.**
Mains electricity is one type of electrical current. Can you name another type?	**Battery powered electricity.**
Can you name a non-renewable method of generating electricity?	**Burning fossil fuels such as coal, oil or natural gas.**

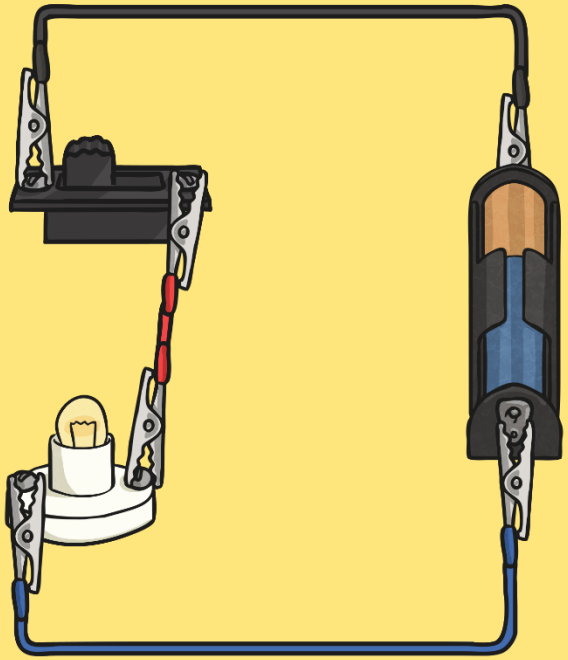
Complete and Incomplete Circuits

An electrical circuit can be complete or incomplete.

Incomplete Circuit



Complete Circuit



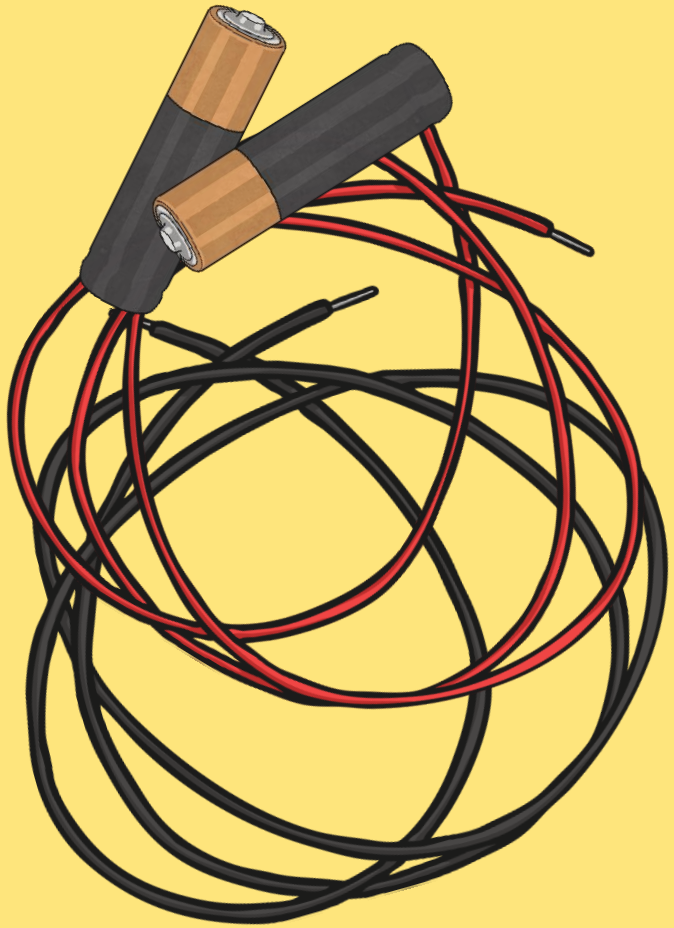
Complete and Incomplete Circuits

Current electricity is the flow of electrical charge though materials.

Every complete circuit must have a power supply. The power supply could be the mains, or it could be a battery.

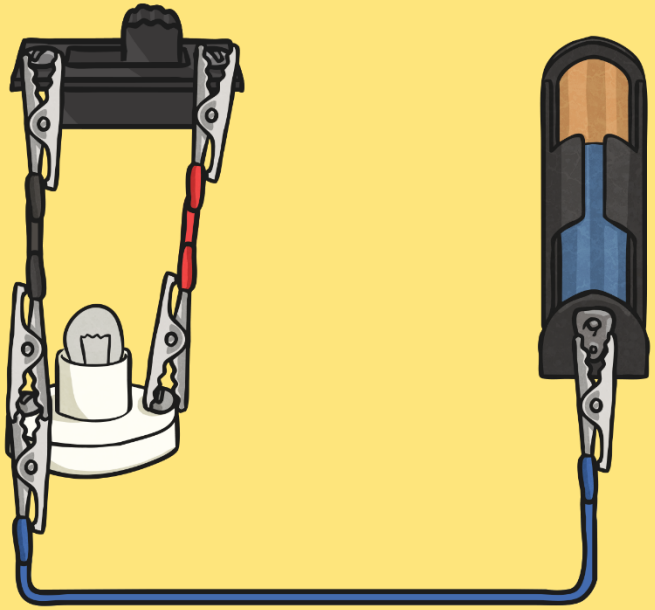
For a circuit to be complete, there must be wires connected to both the positive and negative ends of the power supply.

Electricity can only flow around a complete circuit that has no gaps.



Complete and Incomplete Circuits

Incomplete Circuit



This circuit is incomplete.

1. There is a gap in the circuit, so the electrical current cannot flow around it.

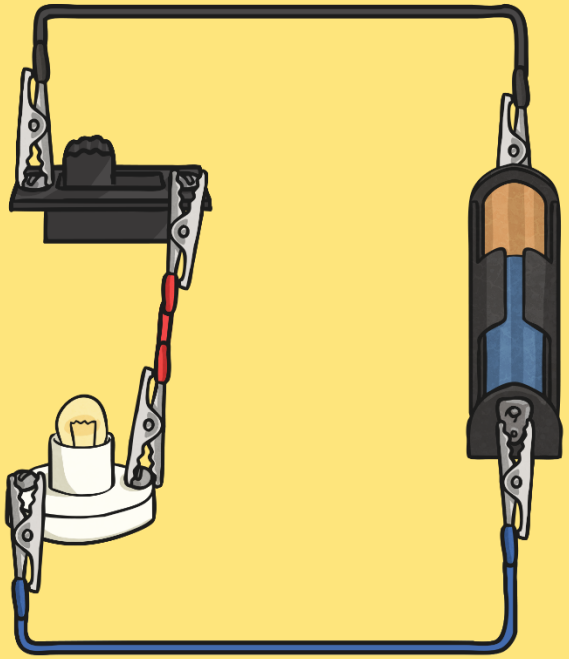
2. The wires do not connect to the positive and negative ends of the power supply (the battery).

Complete and Incomplete Circuits

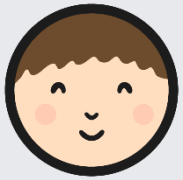
This is a complete circuit.

1. There is a power supply (the battery).
2. There are no gaps anywhere, so the electrical current can flow around the entire circuit.
3. The wires connect to both the positive and negative ends of the battery.

Complete Circuit

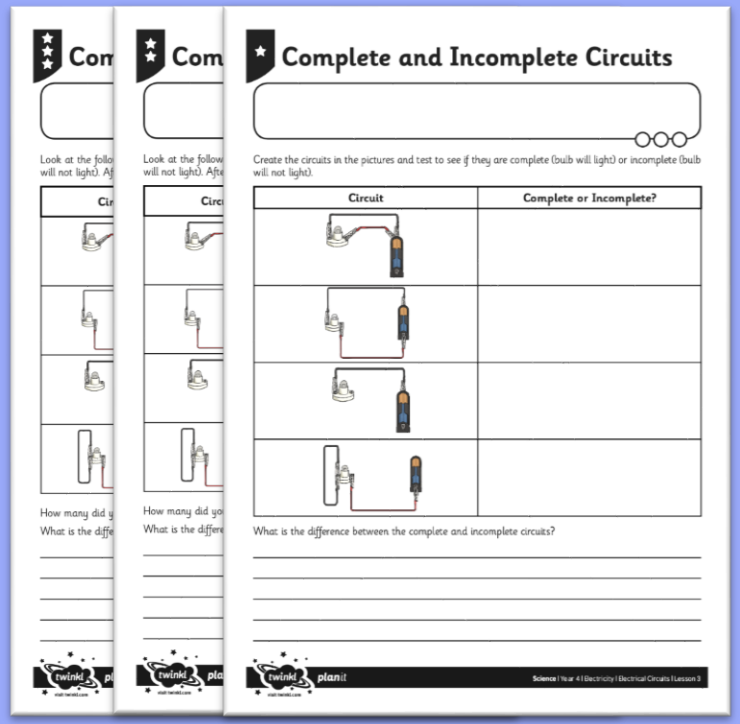


Complete or Incomplete Circuit?

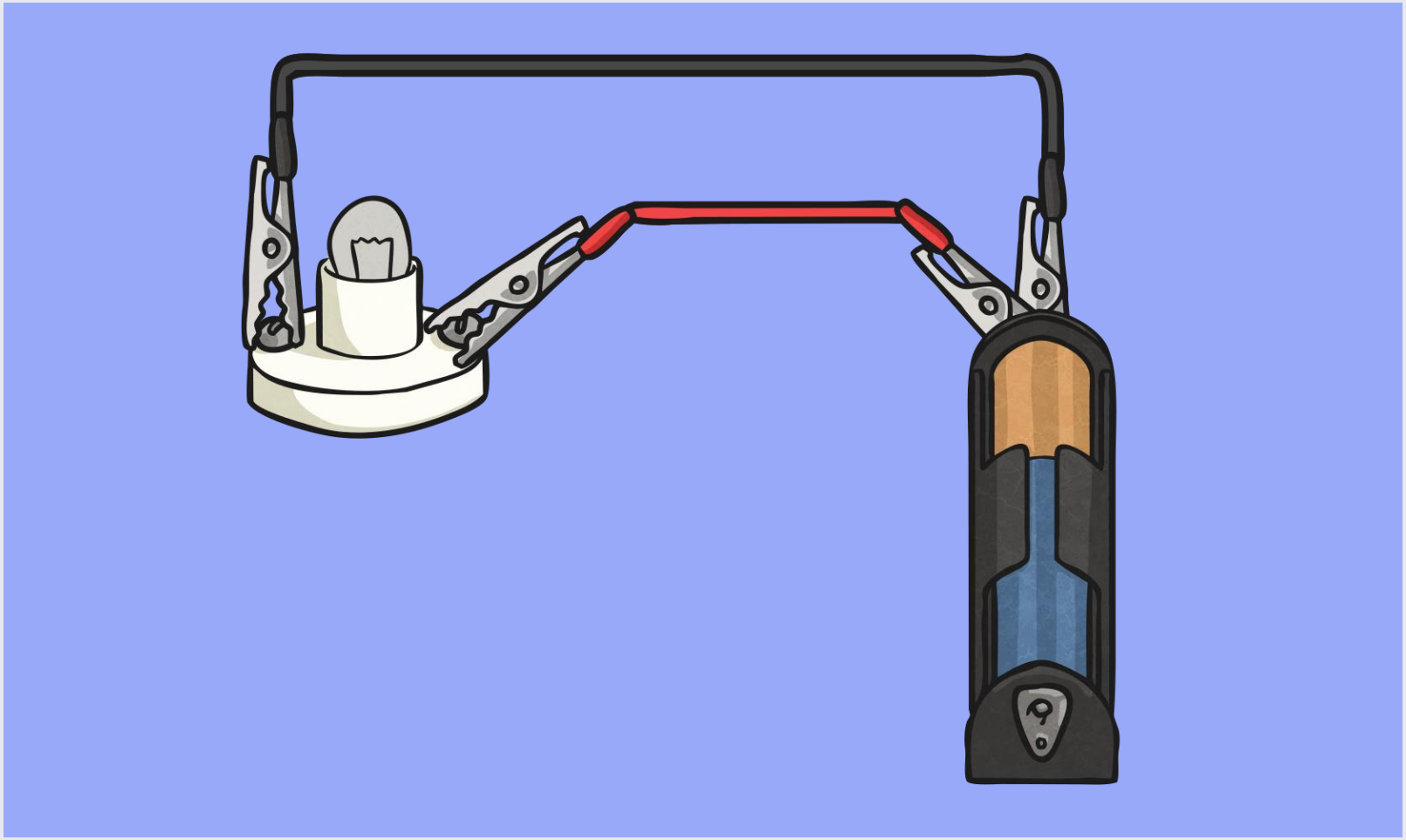


Task Instructions:

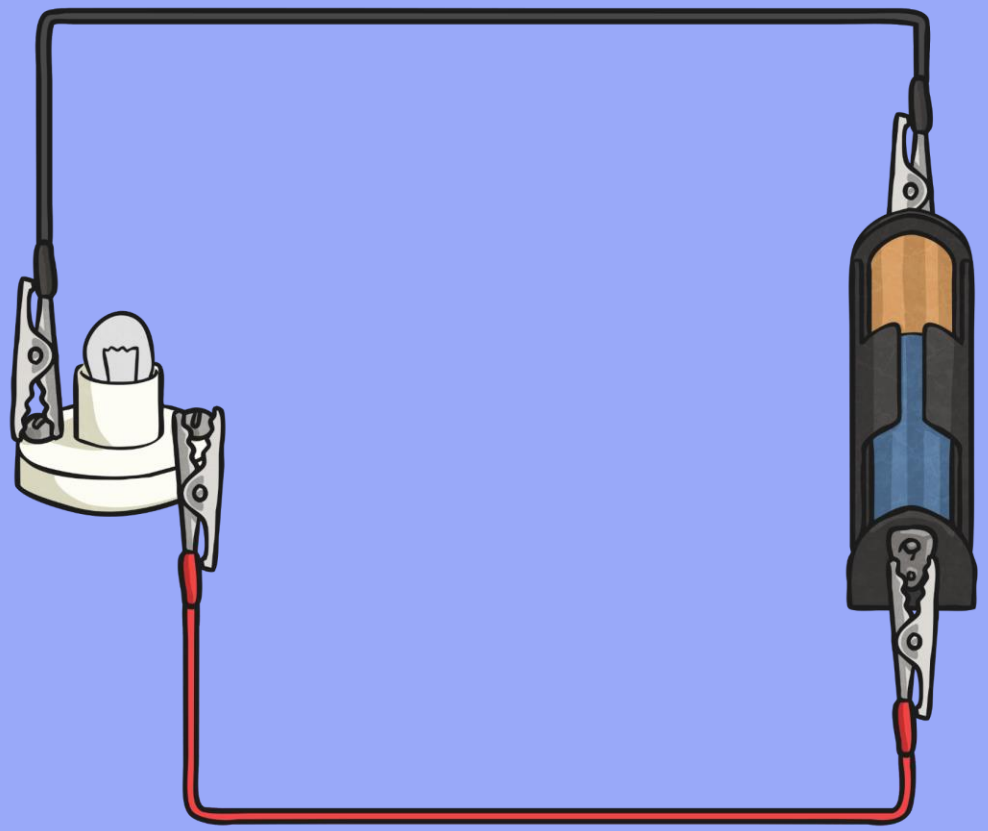
1. On your activity sheets, you will see pictures of circuits.
2. You will need to first predict if you think the circuit will be complete or incomplete.
3. Next, you will need to take the correct equipment and test to see if your prediction was correct or incorrect.
4. Lastly, you will need to record what you have found out on your activity sheet.



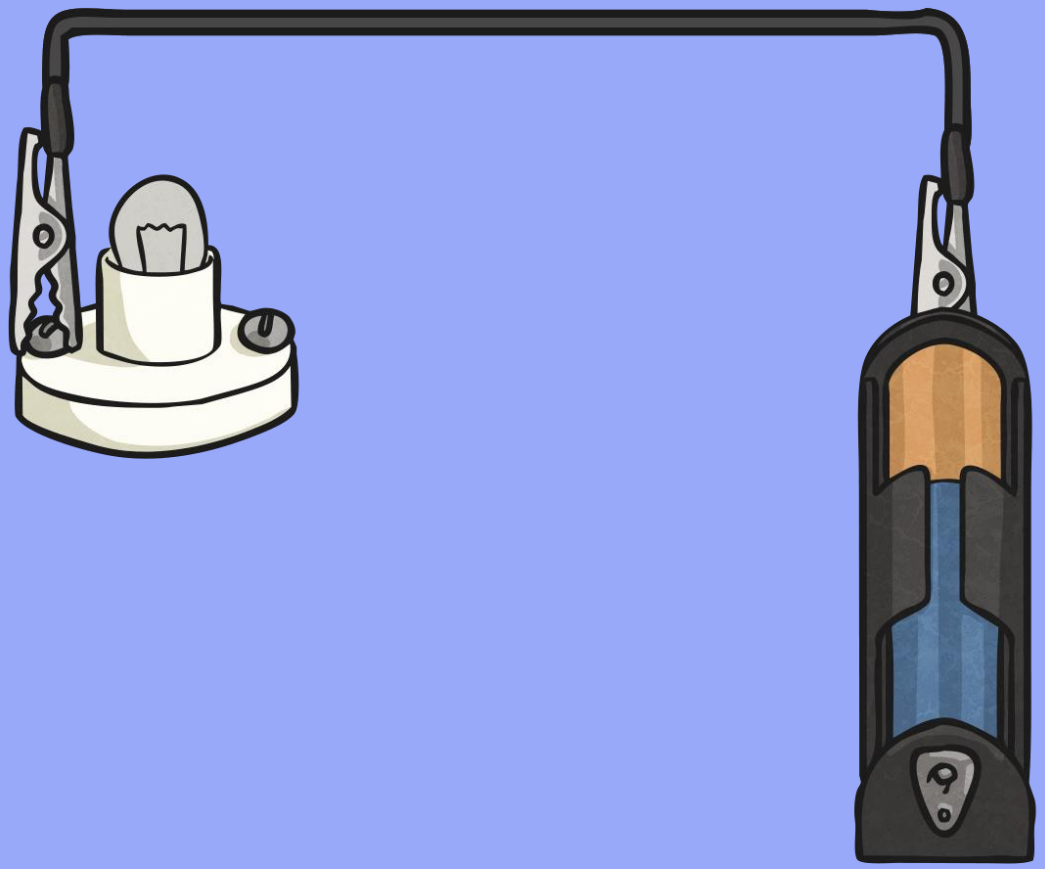
Complete or Incomplete?



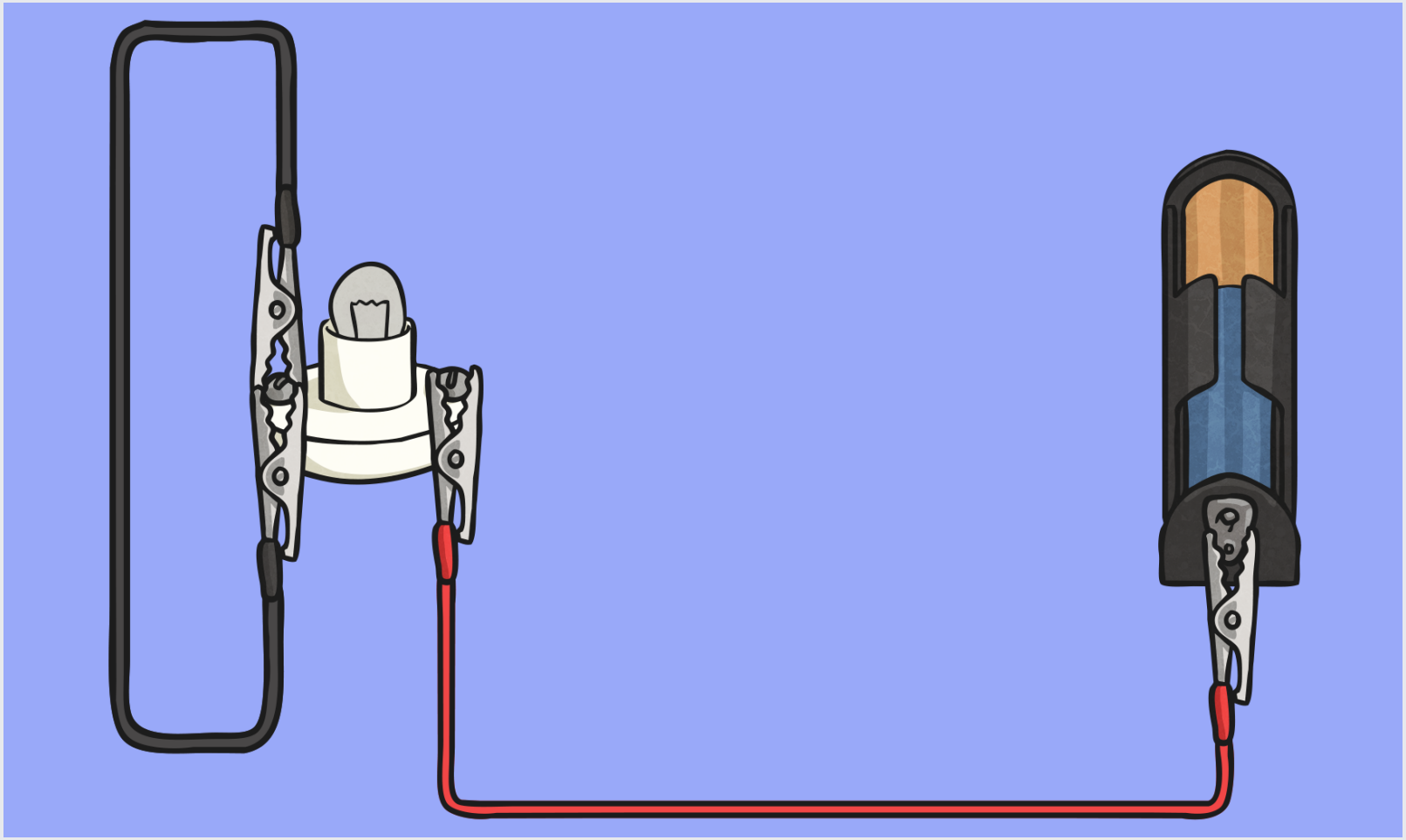
Complete or Incomplete?



Complete or Incomplete?



Complete or Incomplete?



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