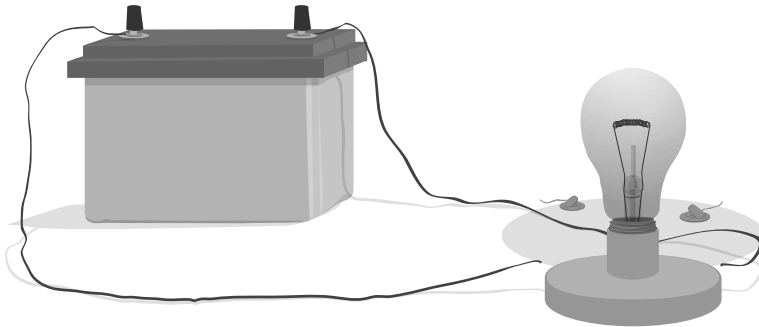


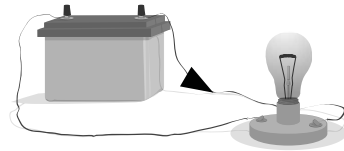
Bulb and battery

A bulb is connected to a battery. The bulb is lit.

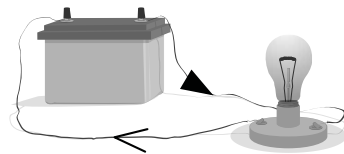


Which of the following best describes the electric current in this circuit?

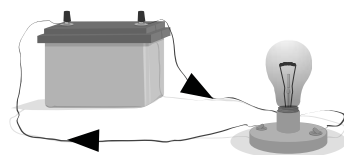
- There is an electric current through one wire to the bulb. It is all used up in the bulb. So there is no current in the wire.



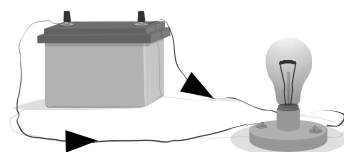
- There is an electric current through one wire to the bulb. Some of it is used up in the bulb. So there is a smaller current in the other wire.



- There is an electric current through one wire to the bulb. It passes through the bulb and back to the battery. The current in the other wire is the same size.

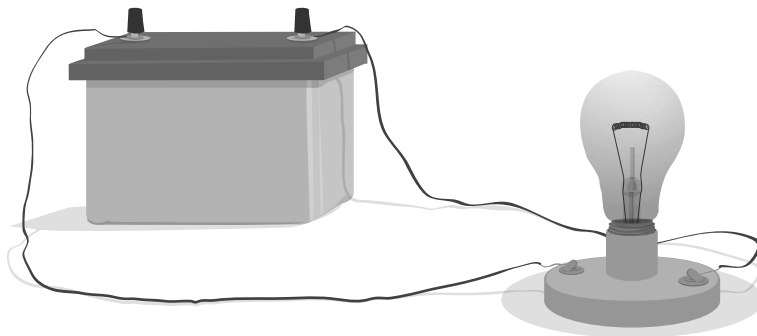


- There are two electric currents from the battery to the bulb. They meet at the bulb and this is what makes it light.



Electric charge

A bulb is connected to a battery. The bulb is lit.



Read each of the statements below about what is happening in the battery. For each statement, put a tick in one box if you think is correct or incorrect.

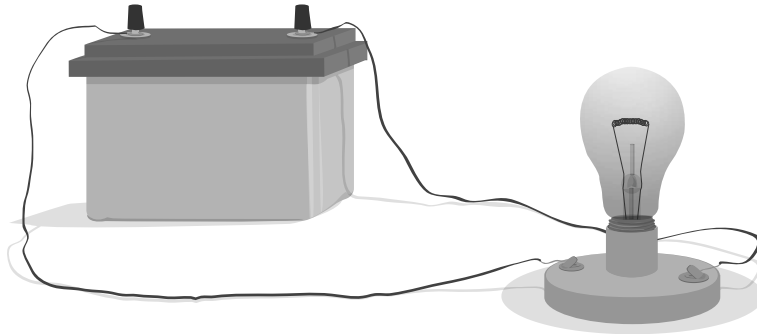
	CORRECT	DON'T KNOW	INCORRECT
a) Before the battery is connected, there are no electric charges in the wire. When the battery is connected, electric charges flow out of it into the wire.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) There are electric charges present in the battery and the wires all the time. The battery makes them move around the circuit.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Chemical reactions in the battery make electric charge which then flows round the circuit.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Read each of the statements below about what is happening in the bulb. Then put a tick in one box to show if you think it is correct or incorrect.

	CORRECT	DON'T KNOW	INCORRECT
d) The electric charges are used up in the bulb and converted into light.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Collisions between the moving electric charges and the fixed ions in the filament makes it heat up and glow.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) The same number of charges return to the battery every second as leave it. No charges are used up.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Several minutes

A bulb is connected to a battery. The bulb is lit.



The circuit is left switched on for several minutes. The bulb stays lit all the time.

Its
brightness does not change.

Read each of the statements below and put a tick in one box to show if you think it

	CORRECT	DON'T KNOW	INCORRECT
a) There is now less electric charge stored in the battery than there was at the start.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) There is now less energy stored in the battery than there was at the start.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) The battery now contains less electric current.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) The battery now contains less electricity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>