

NCERT Class 6 Science

Solutions Chapter 9: Electricity and Circuits

Exercise Answers:

1. Fill in the blanks :

(a) A device that is used to break an electric circuit is called _____.

(b) An electric cell has _____ terminals.

Solution:

(a) A device that is used to break an electric circuit is called **switch**.

(b) An electric cell has **two** terminals.

2. Mark 'True' or 'False' for following statements:

(a) Electric current can flow through metals.

(b) Instead of metal wires, a jute string can be used to make a circuit.

(c) Electric current can pass through a sheet of thermo Col.

Solution:

(a) True

(b) False

(c) False

3. Explain why the bulb would not glow in the arrangement shown in Fig. 12.13.

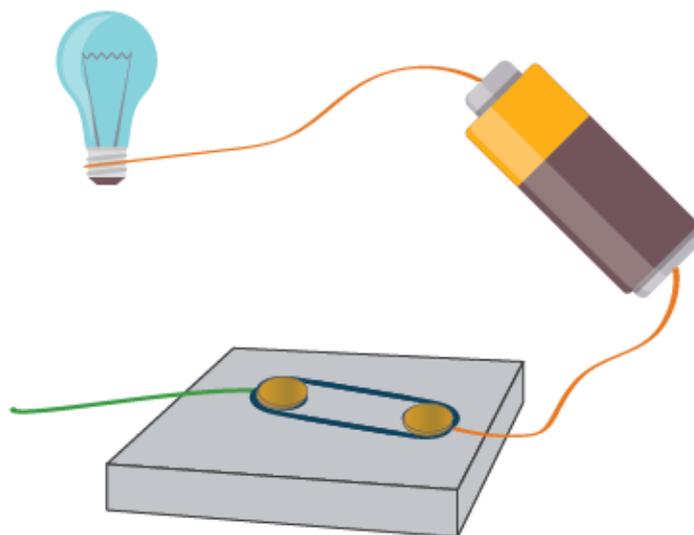


Fig. 12.13

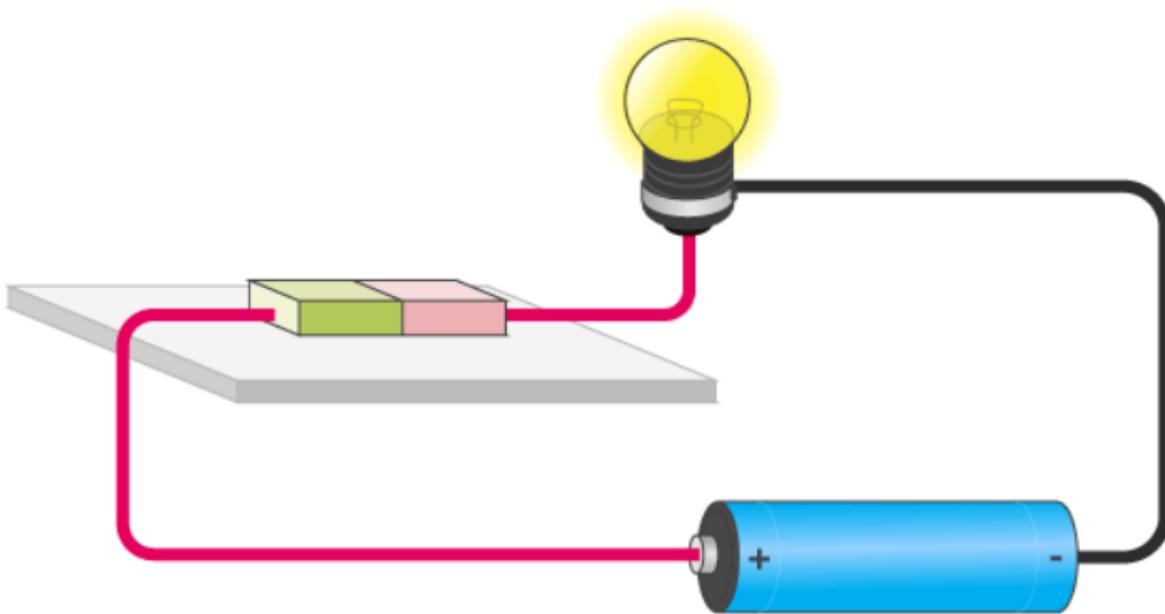
Solution:

The bulb would not glow in the arrangement because the circuit is not complete due to the presence of an insulator in the centre.

4. Complete the drawing shown in Fig 12.14 to indicate where the free ends of the two wires should be joined to make the bulb glow.



Solution:

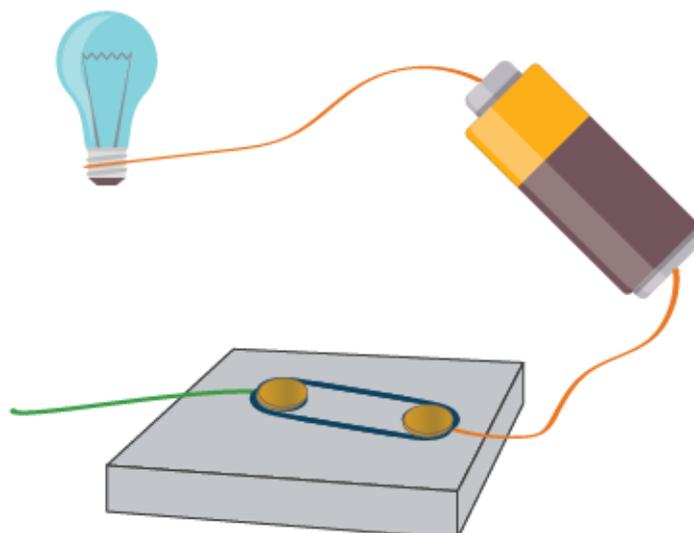


5. What is the purpose of using an electric switch? Name some electrical gadgets that have switches built into them.

Solution:

Electric switches serve the purpose of opening or closing circuits. Devices like fans, refrigerators, televisions, microwave ovens, and electric cookers contain built-in switches to control the flow of electricity.

6. Would the bulb glow after completing the circuit shown in Fig. 12.14 if instead of a safety pin we use an eraser?



Solution:

No, the bulb will not glow as the eraser is an insulator.

7. Would the bulb glow in the circuit shown in Fig. 12.15?



Fig. 12.15

Solution:

No, the bulb will not glow.

8. Using the “conduction tester” on an object it was found that the bulb begins to glow. Is that object a conductor or an insulator? Explain.

Solution:

The object is a conductor because the bulb glows only when the conductor is used but not

when the insulator is used.

9. Why should an electrician use rubber gloves while repairing an electric switch at your home? Explain.

Solution:

While repairing an electric switch in your home, an electrician employs rubber gloves as they are insulators. This protective measure helps the electrician avoid electric shocks.

10. The handles of the tools like screwdrivers and pliers used by electricians for repair work usually have plastic or rubber covers on them. Can you explain why?

Solution:

Electricians utilize tools such as screwdrivers and pliers during repair work, as plastic is an insulating material. The plastic handles on these tools serve as a protective barrier, shielding the electrician from potential electric shocks while working.

[Visit Ncertsolution.org for more Solutions and Updates.](https://www.ncertsolution.org)