Topic: Electricity and Circuits

Class 6th Science

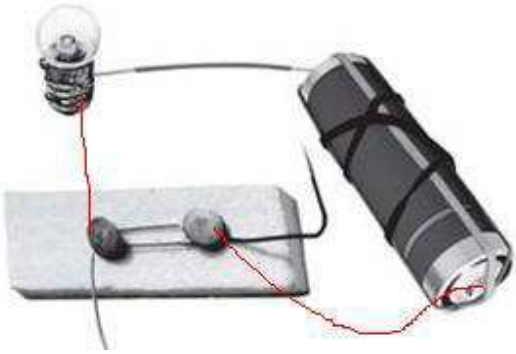
Answer the following questions

3. **Explain why the bulb would not glow in the arrangement shown in the given figure?**

Answer: The bulb in the given arrangement would not glow because one of the terminals of the bulb is connected to that end of a screwdriver which is plastic. Plastic is an insulator and hence do not allow electric current to pass through it.

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

Answer:



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

Answer: An electric switch helps us in making or breaking the electric circuit as and when required.

- It helps in saving electricity and in prolonging the life of an electric cell.
- It prevents the over-heating of appliances.

Table fan, mixer-grinder, television, oven, refrigerators etc. are some gadgets which have in built electrical switches.

6. Would the bulb glow after completing the circuit in figure (question 4) if instead of safety pin we use an eraser?

Answer: If an eraser is used instead of a safety pin to complete the circuit, the bulb would not glow. Eraser is an insulator and hence it would not allow electric current to flow.

7. Would the bulb glow in circuit shown in the given figure?

Answer: No, the bulb will not glow because both the wires are connected to the same terminal of the bulb.

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

Answer: The object is a conductor which is proved by electric circuit becoming complete.

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

Answer: An electrician uses rubber gloves while repairing an electric switch at our home because rubber acts as an insulator and does not allow current to pass through it and thereby prevent them from getting an electric shock.

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?

Answer: The handles of the tools like screwdrivers and pliers used by electricians for repair work usually have plastic or rubber covers on them because plastic acts as an insulator and does not allow current to pass through it and thereby prevent them from getting an electric shock.