

Nova's Electrifying Science Challenge

Learning objective: To identify common appliances that run on electricity, recognize the components of a simple circuit, and understand electrical safety.

Help Nova the owl explore the world of electricity! Read each question carefully and circle the best answer or write your answer in the space provided.

Answer Key: 1. A (Battery), 2. False, 3. Switch, 4. C (To stop the flow of electricity), 5. True, 6. Metals, 7. B (To carry the current), 8. False, 9. Appliance, 10. True. Safety note: Always keep electrical items away from water!

Word bank: Battery · Circuit · Conductor · Insulator · Appliance · Switch · Bulb · Wires

1. 1. Which of these is a source of electricity for a portable toy? A) Battery* B) Bulb C) Switch D) Wire (1 mark)

2. 2. True or False: Electricity can travel through a broken circuit. (1 mark)

3. 3. What component is used to open and close a circuit to turn a light on or off? (1 mark)

4. 4. Why do we cover electrical wires in plastic? A) To make them look nice B) To make them stronger C) To stop the flow of electricity from escaping* D) To make them lighter (1 mark)

5. 5. True or False: A simple circuit needs a path for the electricity to flow all the way around. (1 mark)

6. 6. Name one material that is a good conductor of electricity. (1 mark)

7. 7. What is the job of the wires in a circuit? A) To hold the battery B) To carry the current* C) To generate heat D) To switch it off (1 mark)

8. 8. True or False: It is safe to touch electrical sockets with wet hands. (1 mark)

9. 9. A toaster or a television is known as an electrical _____. (1 mark)

10. 10. True or False: The bulb in a circuit will only light up if the circuit is complete. (1 mark)

Draw: Draw a simple circuit including a battery, a bulb, and a switch. Label the wires clearly.



Extension challenge: Nova wants to know: If you have £15.00 and a new light-up robot toy costs £7.50, how many can you buy? If you buy two, is your circuit complete or incomplete when the switch is off?