

Kit's Circuit Challenge: Building a Buzzing System

Learning objective: To understand the components of a simple series circuit and how to represent them using standard symbols.

Kit the fox is trying to build a simple alarm system for his woodland workshop. He needs your help to label his circuit diagram and understand how the parts work together. Look at the word bank provided and match the correct component name to the description of its function in the circuit. Then, write a sentence to explain what happens when the circuit is incomplete.

Word bank: Cell · Switch · Bulb · Buzzer · Wires · Complete Circuit

1. 1. I provide the electrical energy to get the circuit moving. What am I? (1 mark)

2. 2. I am the path that allows electricity to flow around the system. What am I? (1 mark)

3. 3. I am used to open or close the circuit, starting or stopping the flow of electricity. What am I? (1 mark)

4. 4. If Kit uses a component that makes a loud sound when the electricity flows, which component is he using? (1 mark)

5. 5. Explain what happens to the buzzer if there is a gap in the wires. Why does this occur? (2 marks)

Draw: Draw a simple circuit containing one cell, one switch, and one buzzer. Use lines to represent the wires and label each part clearly.



Extension challenge: Kit wants to add a second bulb to his circuit. If he adds it in the same loop, predict what might happen to the brightness of the bulbs compared to when there was only one. Write your prediction in your notebook.