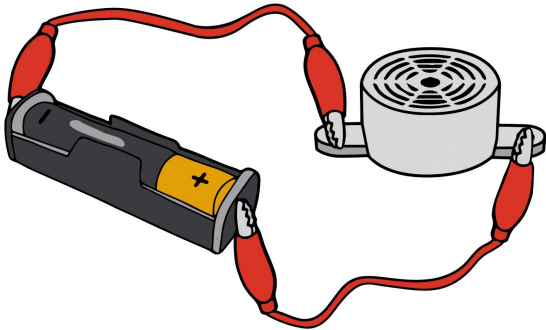


Knowledge catcher: Circuits, batteries and switches

Some pupils investigated how the number of cells affects the volume of a buzzer. They used a cell, some wires, a buzzer and a data logger to measure volume in decibels. The results table is below:



Number of cells	Volume of buzzer (decibels)			
	Test 1	Test 2	Test 3	Mean average
1	70	71	72	71
2	77	76	78	
3	84	81	85	83.3

1

Draw a circuit diagram for the image shown above.

2

Draw another circuit diagram with a higher voltage.

3

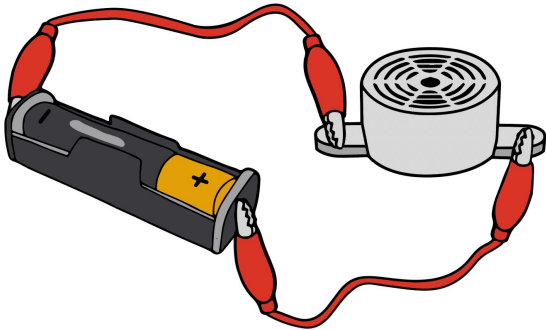
Give one example of a control variable for this experiment.

4

Work out the missing mean average in the results table and write it in.

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5 Describe the relationship (link) observed using the results in the table.

6 Describe another way to change the volume of the buzzer.

7 What effect would adding a switch to the circuit have?
