

Science

Grade 6

Electric circuits

Build circuits and find out what makes a bulb light up.



I can build and explain simple series circuits.

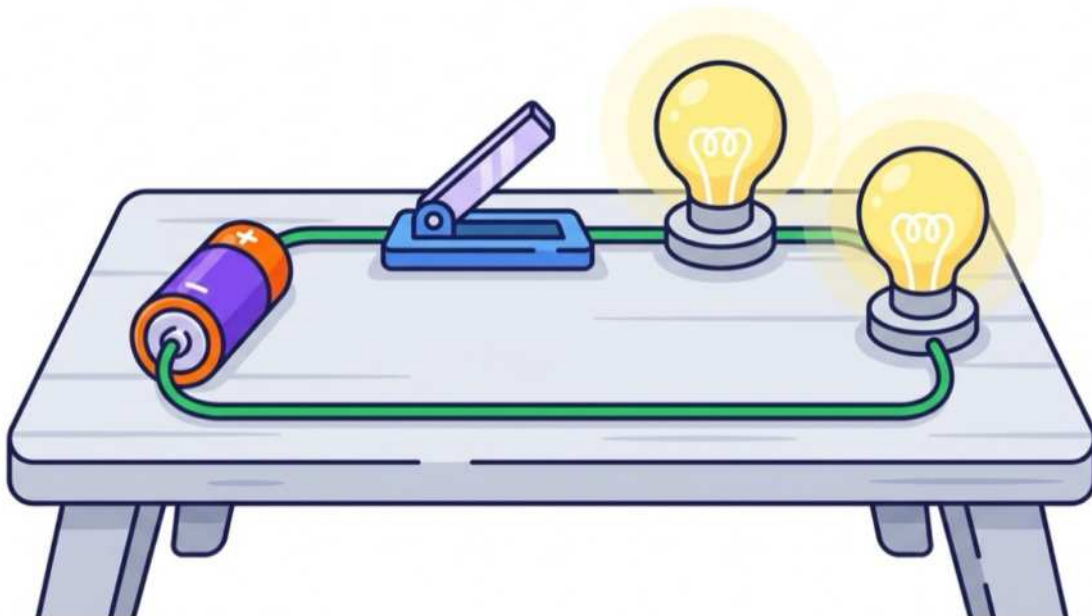


1



Match up

Draw a line to match each pair.

☐

Cell (battery)

☐

Wire

☐

Switch

☐

Bulb



● A. opens or closes the circuit

● B. pushes the current around

● C. turns electricity into light

● D. carries the current

2 Sort it

Write each word in the right box.

copper

plastic

steel spoon

rubber

aluminium foil

wood

Conductor

Insulator

3 True or false

Circle true or false.

1. A bulb lights only if the circuit is complete.
2. Plastic is a good conductor.
3. Adding more cells can make a bulb brighter.
4. An open switch lets current flow.

True

False

True

False

True

False

True

False

4 Circuit quiz

Circle the right answer.

1. What is the unit of voltage?

A volt

B ampere

C watt

2. In a series circuit, one bulb breaks. The other bulbs...

A get brighter

B go out

C stay the same

3. Which meter measures current?

A voltmeter

B thermometer

C ammeter

4. Why are wires coated in plastic?

A plastic is an insulator and keeps us safe

B plastic makes the current faster

C plastic makes bulbs brighter

5 Circuit words

Use the word bank to complete each sentence.

WORD BANK

complete

conductor

insulator

series

parallel

1. Current only flows if the circuit is _____.
2. Copper is used in wires because it is a good _____.
3. Rubber is an _____, so current cannot pass through it easily.
4. In a _____ circuit, all the parts are in one single loop.
5. In a _____ circuit, the current has more than one path.

6 Will the bulb light?

Write yes or no in each box.

Circuit	Does the bulb light?
cell, wires and bulb in a complete loop	
one wire is cut	
the switch is open	
the switch is closed	
a plastic ruler fills a gap in the circuit	
a steel paper clip fills a gap in the circuit	

7 Brighter or dimmer?

All bulbs and cells are the same. Compare how brightly one bulb shines. Write $>$, $<$ or $=$.

1 bulb, 2
cells



1 bulb, 1
cell

2 bulbs in
series, 1 cell



1 bulb, 1
cell

1 bulb, 3
cells



1 bulb, 2
cells

1 bulb, 1
cell



1 bulb, 1
cell

8 Circuit word hunt

Find the words in the grid.

S	P	N	H	O	G	M	A	C	L
S	D	I	C	T	N	V	O	F	M
W	R	P	V	H	I	O	P	G	B
I	V	O	L	T	C	T	R	L	U
T	G	V	W	H	I	I	R	O	L
C	B	C	U	R	R	E	N	T	B
H	E	U	C	E	L	L	V	R	V
D	W	I	R	E	C	J	P	V	P
P	I	Y	M	E	S	L	M	D	O
P	E	U	K	I	D	R	J	A	E

FIND THESE WORDS

- ☐ Cell
- ☐ Wire
- ☐ Bulb
- ☐ Switch
- ☐ Current
- ☐ Volt

9



Draw it

Draw a circuit with a cell, a switch and two bulbs. Use circuit symbols.

How did it go?



Made with 

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Answer key

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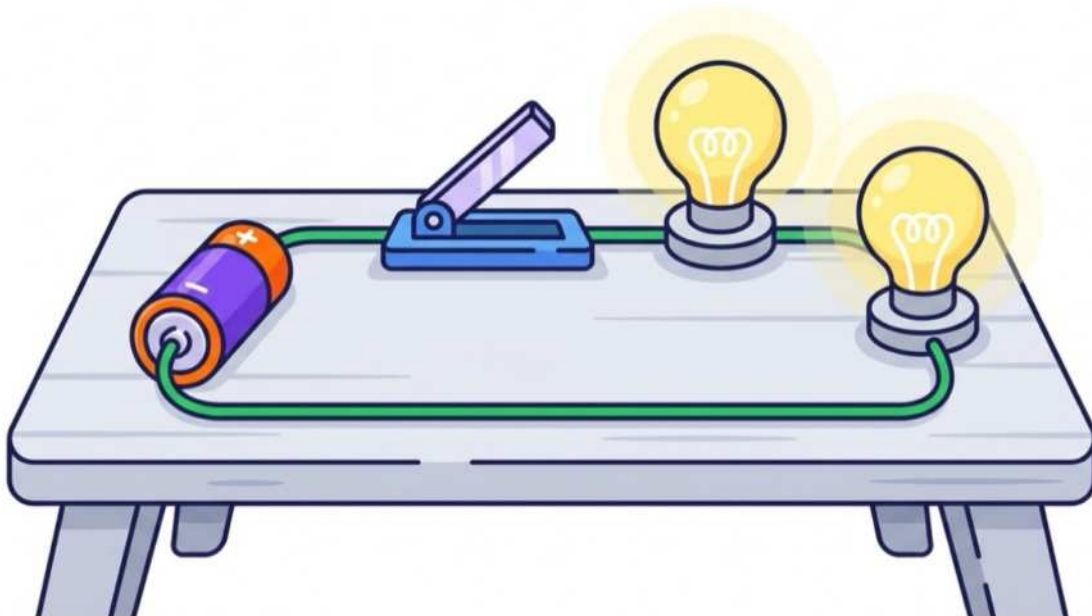


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B Cell (battery)

D Wire

A Switch

C Bulb

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● **B.** pushes the current around

● **C.** turns electricity into light

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copper, steel spoon, aluminium foil

Insulator

plastic, rubber, wood

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one wire is cut	No
the switch is open	No
the switch is closed	Yes
a plastic ruler fills a gap in the circuit	No
a steel paper clip fills a gap in the circuit	Yes

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I	V	O	L	T	C	T	R	L	U
T	G	V	W	H	I	I	R	O	L
C	B	C	U	R	R	E	N	T	B
H	E	U	C	E	L	L	V	R	V
D	W	I	R	E	C	J	P	V	P
P	I	Y	M	E	S	L	M	D	O
P	E	U	K	I	D	R	J	A	E

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