

Science

Year 4 Topic Test

Electricity

Name:

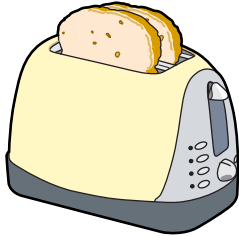
Class:

Date:

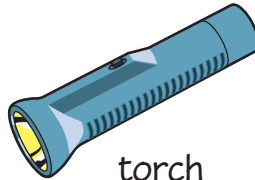
Raw Score



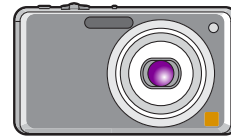
1 Mains or battery



toaster



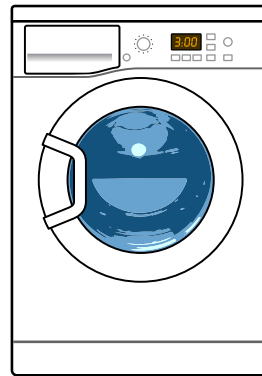
torch



camera



smartphone



tumble dryer

Complete the following:

The items shown above run on electricity, either from a battery source or the mains supply.

Write down **three** different items which need electricity to work.

1

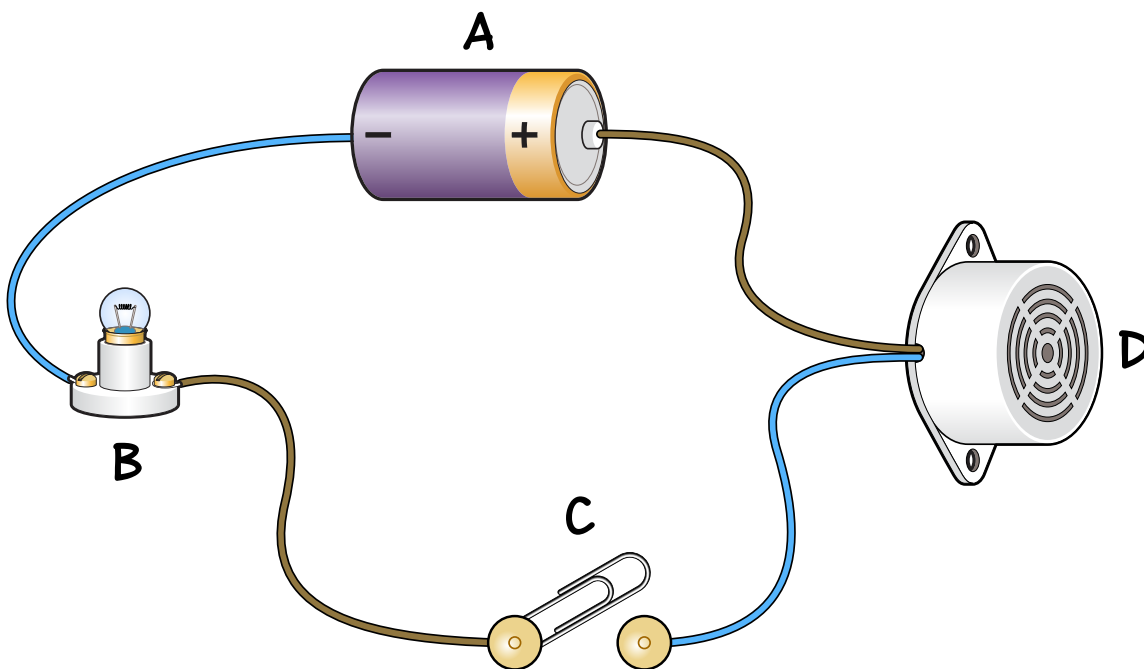
2

3

2 marks

Page Total

2 What's in a circuit?



Complete the following:

buzzer bulb switch battery

- a Using the words in the box above, identify the parts of the circuit. One has been done for you.

A battery

B

C

D

2 marks

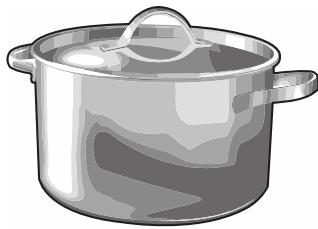
- b In the circuit above, the bulb is not lit. Explain why.

.....

1 mark

Page Total

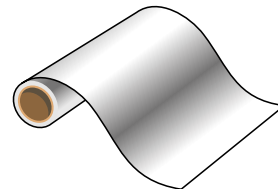
3 Insulator or conductor?



pan



polystyrene
cup



aluminium foil



wooden spoon



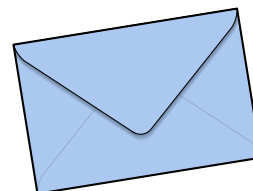
gold bracelet



fork



plastic bracelet



paper envelope

Complete the following:

- a What is the scientific word given to objects that allow electricity to pass through them?

.....

1 mark

- b Identify the **four** items pictured above that **do not** allow electricity to pass through them. One has been done for you.

polystyrene cup
.....
.....

2 marks

- c Electrical wire is covered with plastic. How does this help keep us safe?

.....

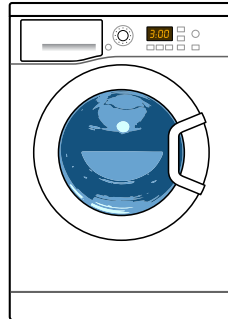
1 mark

Page Total

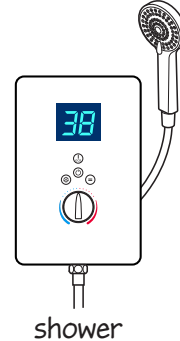
4 Electrical devices



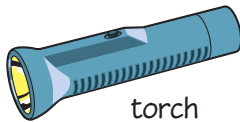
hammer



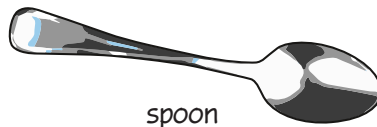
washing machine



shower



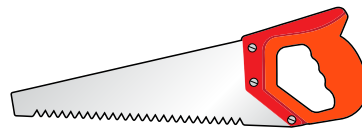
torch



spoon



tablet computer



saw



pen

Complete the following:

- a Write down **two** of the items above which **do not** use electricity.

1 2

1 mark

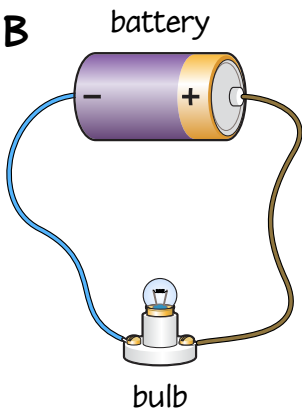
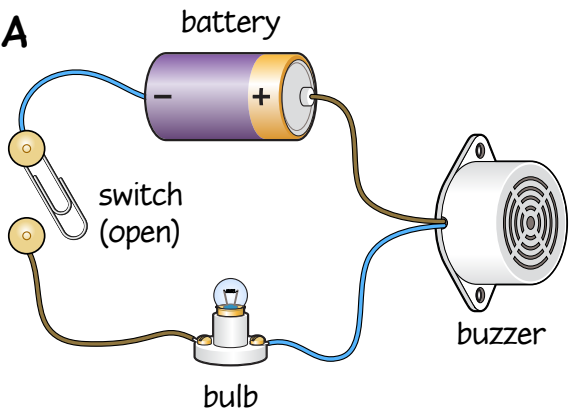
- b Why are plugs **not** covered with metal?

.....
.....

1 mark

Page Total

5 Circuits



Look at the circuits above and complete the following:

- a** Is the buzzer sounding in circuit A?
Explain your answer.
.....
.....
- b** In circuit B, the bulb is constantly lit. What could be done to make it possible for the bulb to turn on and off?
.....
- c** How could you make the bulb brighter in circuit B?
.....

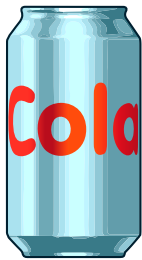
1 mark

1 mark

1 mark

Page Total

6 Conductive materials?



cola can



£1 coin



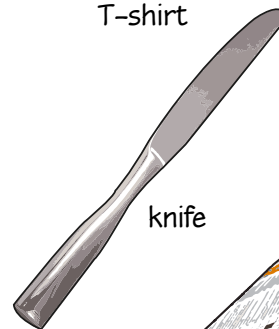
T-shirt



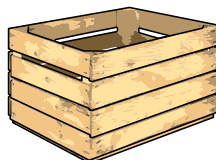
paperclip



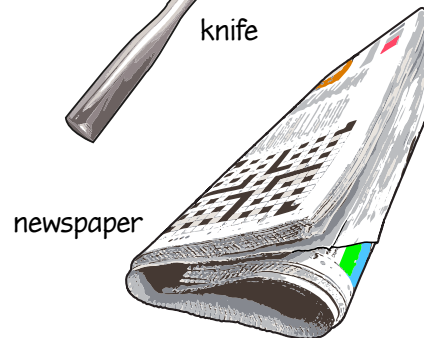
mug



knife



wooden box



newspaper

Complete the following:

- a Of the objects pictured above, **four** will **not** conduct electricity. Write them below. One has been done for you.

mug

.....

.....

2 marks

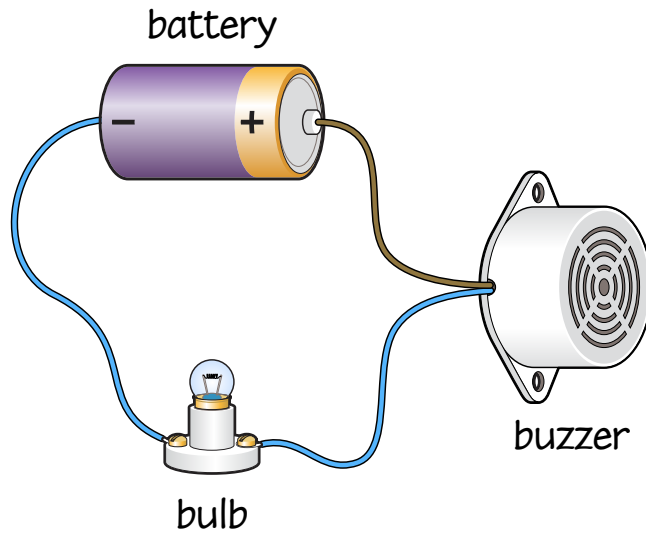
- b What material are all the conductors of electricity shown above made from?

.....

1 mark

Page Total

7 Making circuits



Look at the picture above to complete the following:

- a Is the circuit complete? Answer **yes** or **no**.
.....
- b If an extra bulb was added, the original bulb would be dimmer.
Explain why.
.....
.....
- c What could be added to the circuit to make the buzzer louder?
Tick the correct box below.

- ☐ a switch
- ☐ an extra battery
- ☐ an extra bulb

1 mark

1 mark

1 mark

Page Total

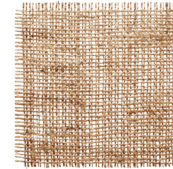
8 Conductors and insulators



lunch box



ballpoint pen



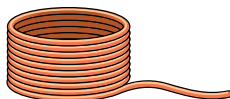
piece of
cloth



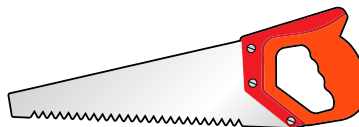
cricket bat



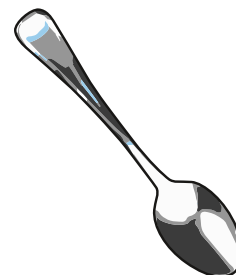
50 pence



copper wire



saw



spoon

Complete the following:

- a Write down the **four** items above which allow electricity to pass through them. One has been done for you.

..... saw
.....

2 marks

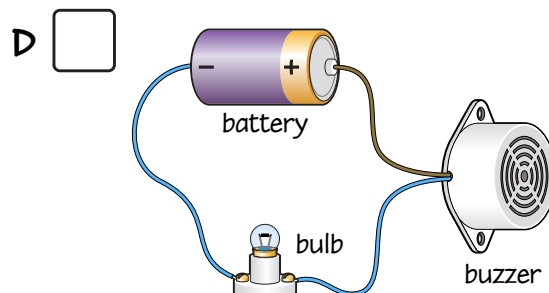
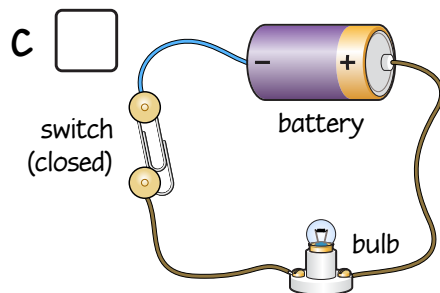
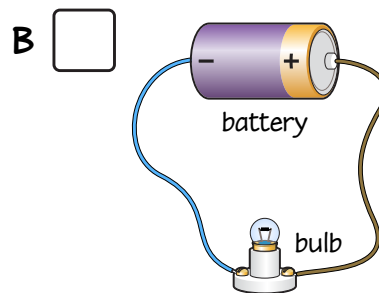
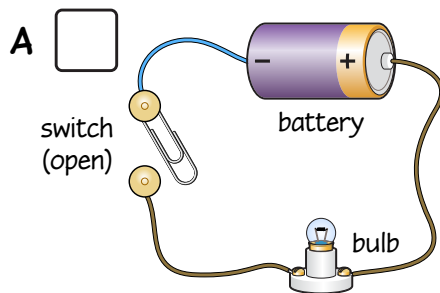
- b What is the scientific word given to objects that **do not** allow electricity to pass through them?

.....

1 mark

Page Total

9 Circuit to circuit



Complete the following:

a Tick the box above next to the circuit where the bulb does not light.

1 mark

b When is the bulb lit in circuit B? Circle your answer.

some of the time

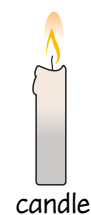
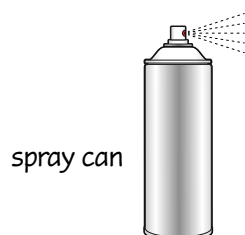
never

every 5 seconds

all of the time

1 mark

c Circle **two** of the objects below which need an electrical circuit to work.



1 mark

Page Total

Test Total

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