

Science

Year 4 Topic Test

Electricity

Name:

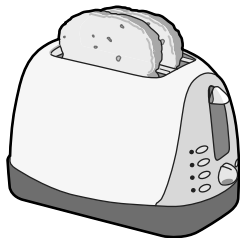
Class:

Date:

Raw Score



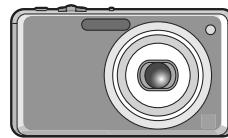
1 Mains or battery



toaster



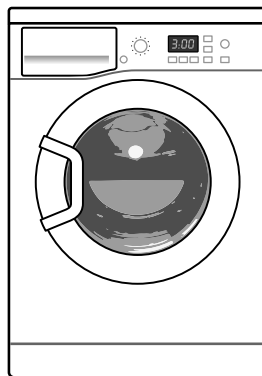
torch



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

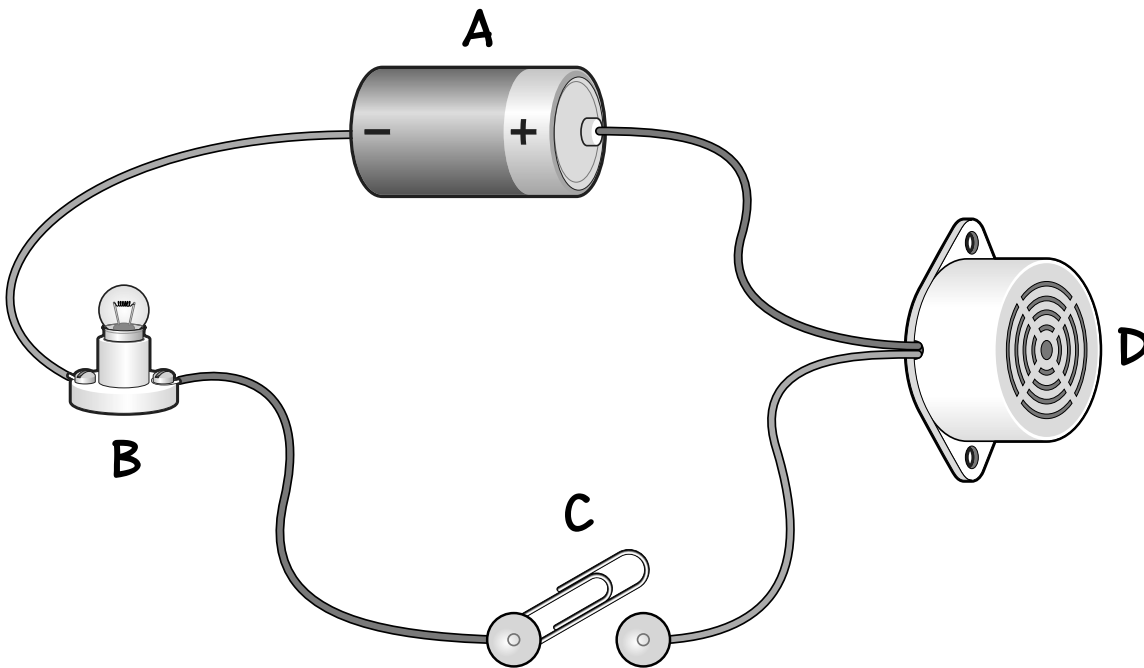
2

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 ○

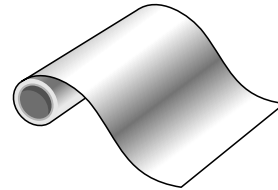
3 Insulator or conductor?



pan



polystyrene cup



aluminium foil



wooden spoon



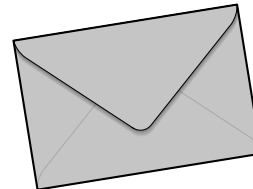
gold bracelet



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

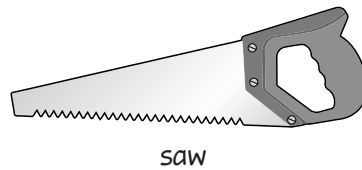
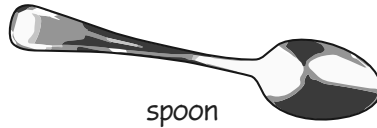
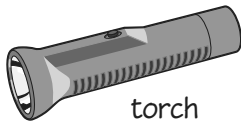
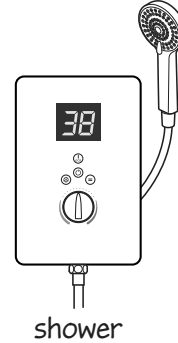
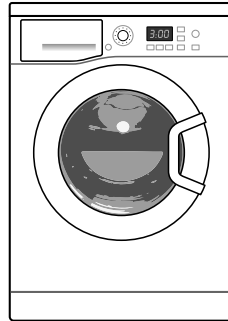
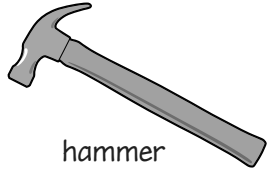
c Electrical wire is covered with plastic. How does this help keep us safe?

.....



1 mark

4 Electrical devices



Complete the following:

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

1 2

1 mark

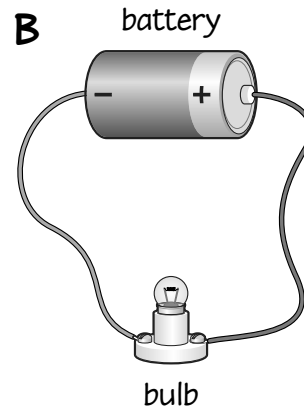
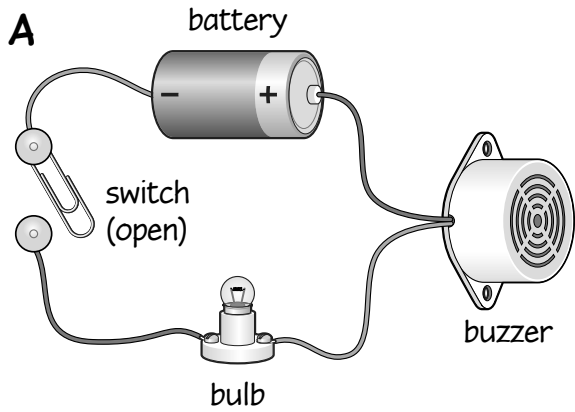
b Why are plugs **not** covered with metal?

.....
.....

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.

.....
.....

1 mark

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?

.....

1 mark

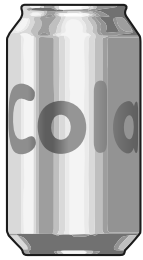
c How could you make the bulb brighter in circuit B?

.....

1 mark

Page Total

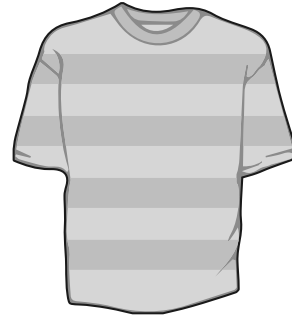
6 Conductive materials?



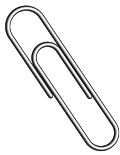
cola can



£1 coin



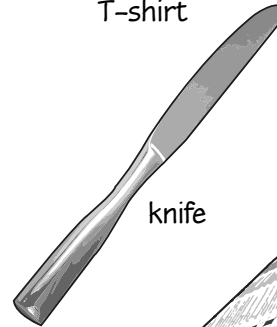
T-shirt



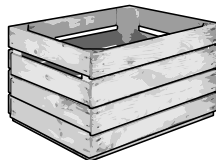
paperclip



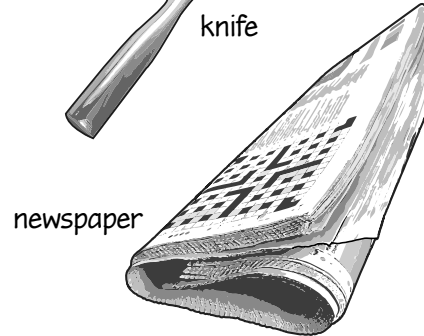
mug



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

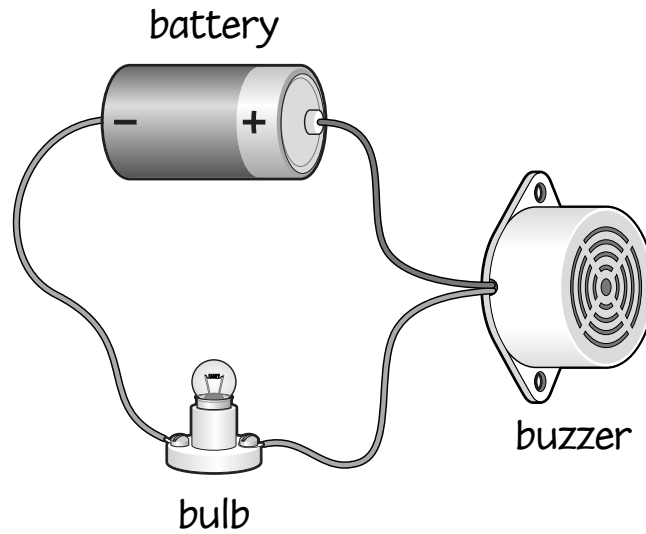
- b What material are all the conductors of electricity shown above made from?

.....

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**.

.....

1 mark

b If an extra bulb was added, the original bulb would be dimmer.

Explain why.

.....
.....

1 mark

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

Page Total

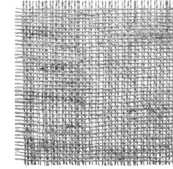
8 Conductors and insulators



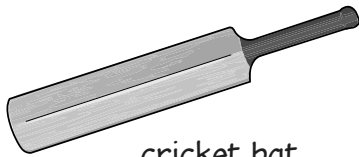
lunch box



ballpoint pen



piece of cloth



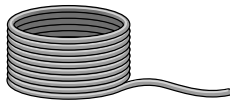
cricket bat



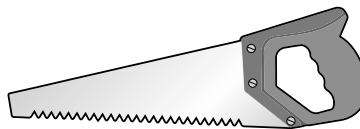
50 pence



spoon



copper wire



saw

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

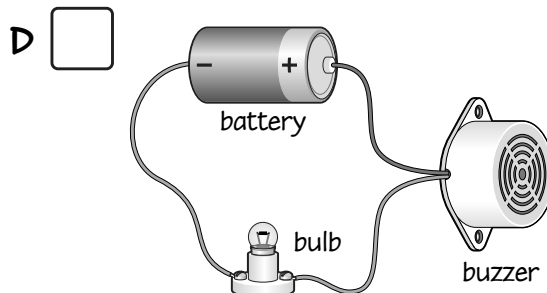
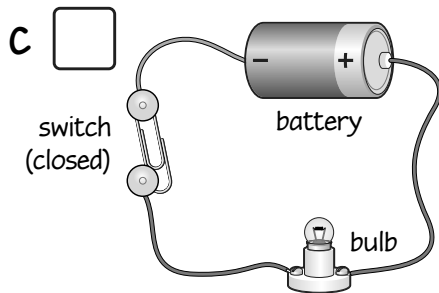
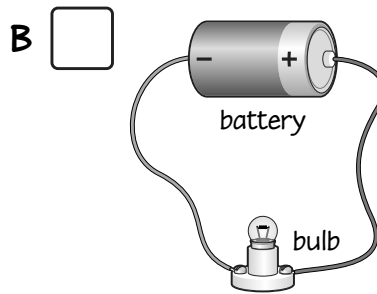
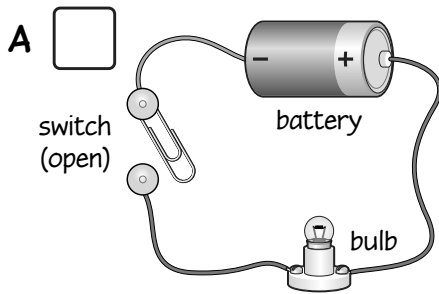
b What is the scientific word given to objects that **do not** allow electricity to pass through them?

.....

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

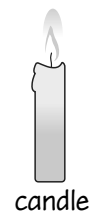
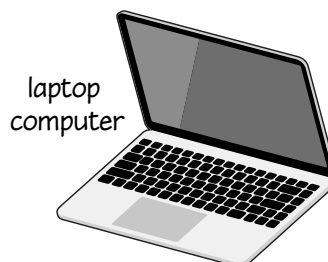
never

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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