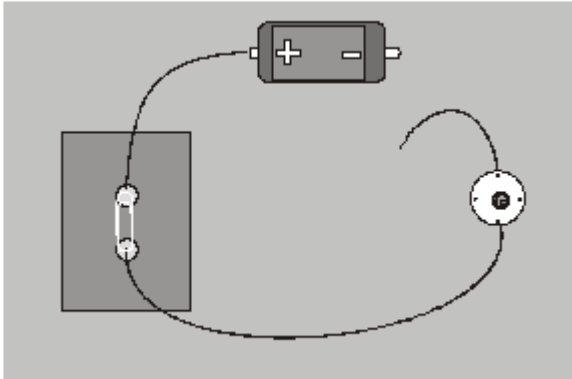


1

Electricity

- (a) Some children make this circuit to light a bulb.



The bulb is not lit.

Why is the bulb **not** lit?

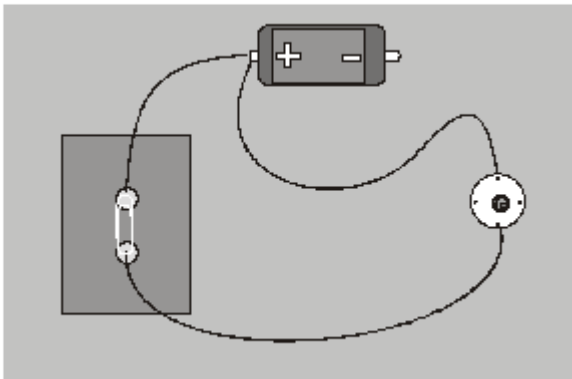


.....

.....

1 mark

- (b) The children make another circuit to light a bulb.



The bulb is not lit.

Why is the bulb **not** lit?

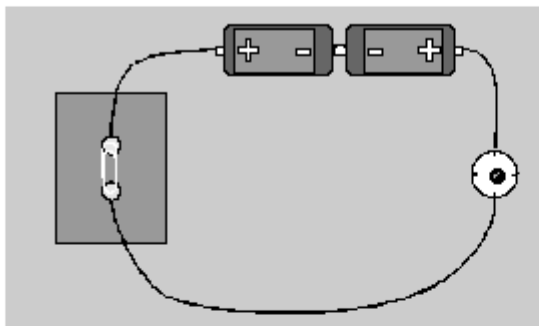


.....

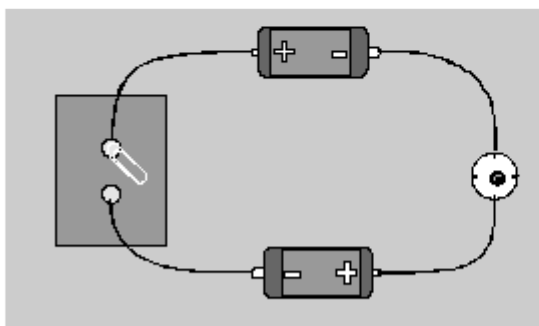
.....

1 mark

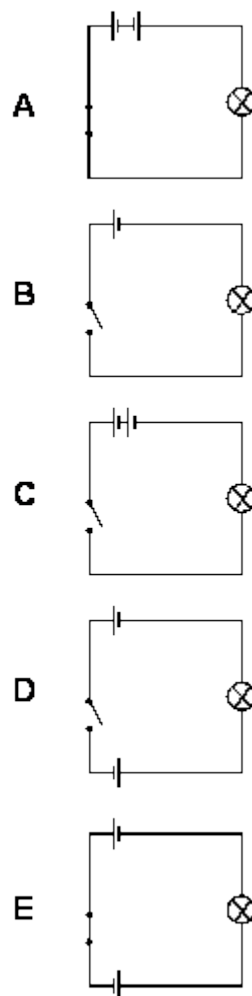
(c) Here are two photographs of circuits and five circuit diagrams.



circuit 1



circuit 2




2 marks

Draw **ONE** line from **each** photograph to the matching circuit diagram.

(d) The bulb is not lit in circuit 2.

Why is the bulb **not** lit?

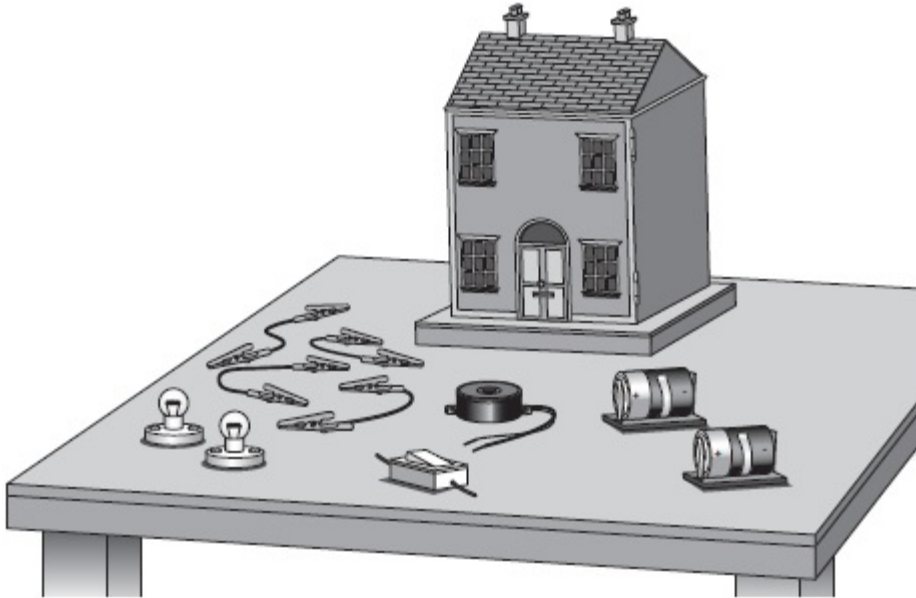


.....

1 mark

Model house

- (a) A group of children are making a circuit for a door bell and lights in a model house.



The circuit symbols for the parts used in the circuit are shown below.

Write the name of each part next to its circuit symbol.

One is done for you.



Circuit symbol

Name of part



.....



buzzer

.....



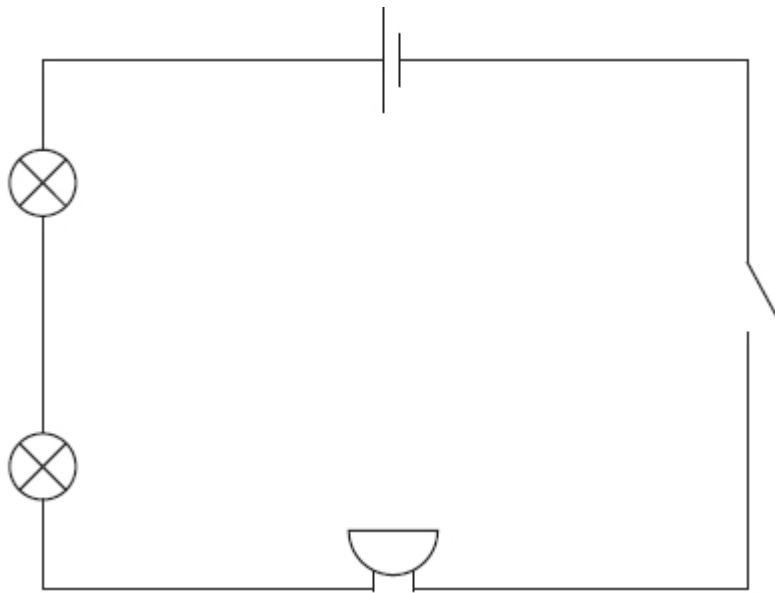
.....



.....

2 marks

- (b) The children make this circuit.



- (i) What must the children do to their circuit to turn the light bulbs and the buzzer on?



.....

1 mark

- (ii) The buzzer only makes a quiet sound.

How could the children change the circuit to make the buzzer louder? Give **TWO** ways.



1

2

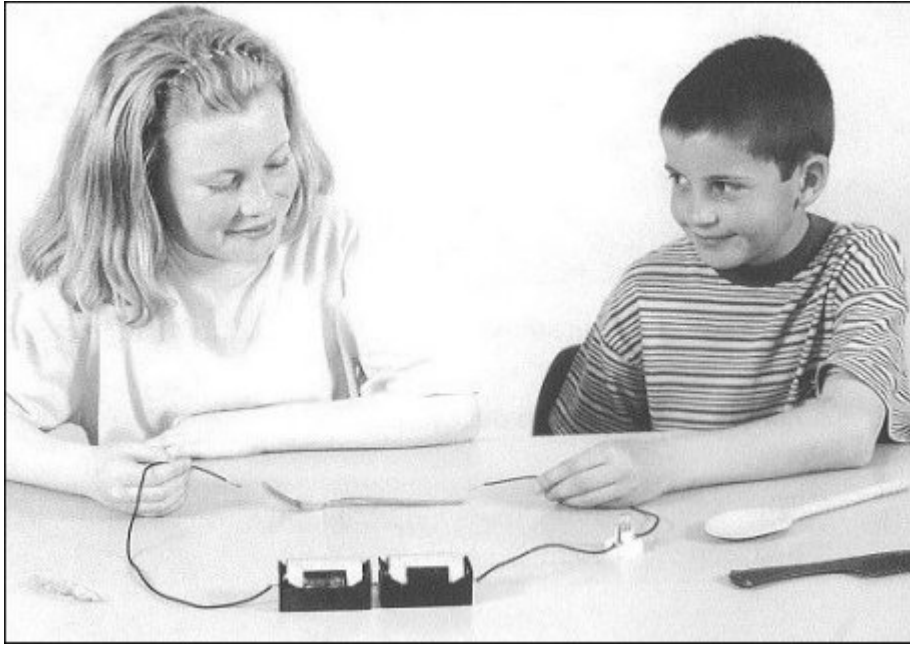
2 marks

Circuits

- (a) Lisa and James are testing different materials in a circuit.

When they connect a steel fork in the circuit, the bulb lights.

They put three other objects in the circuit, one at a time.



Complete the table of results, to show what they found, by putting **ONE** tick for each object.

One has been done for you.

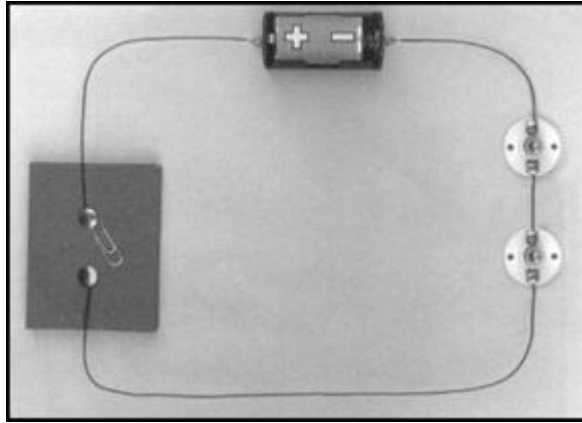


	bulb lights	bulb does not light
steel fork	✓	
plastic comb		
wooden spoon		
aluminium foil		

1 mark

- (b) Daniel has made a circuit.

The circuit contains one new battery, two new bulbs and a switch.



The bulbs are not lit in Daniel's circuit.

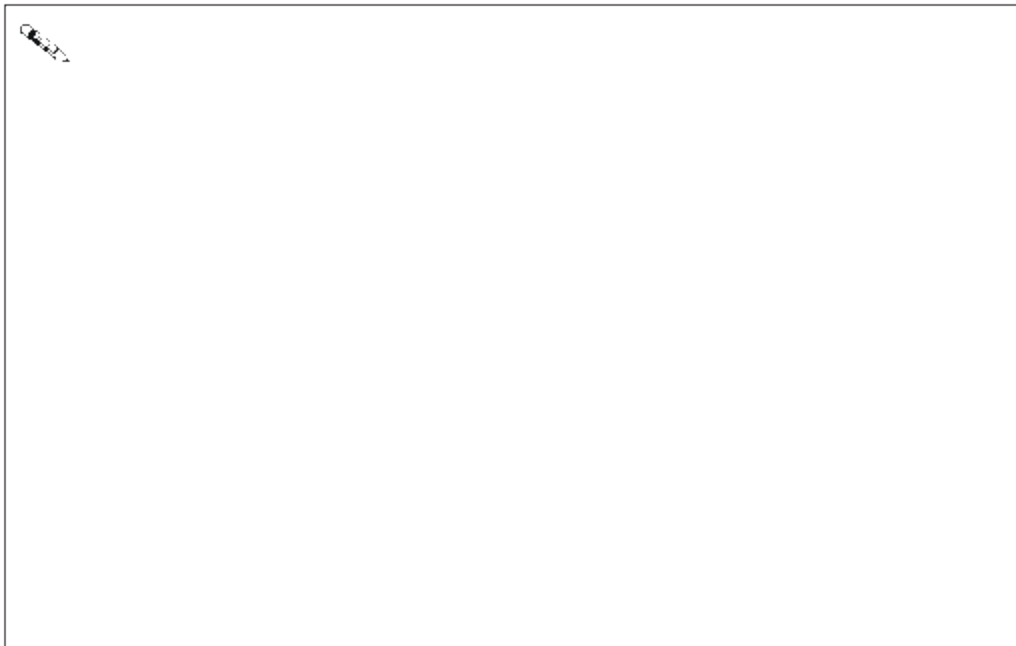
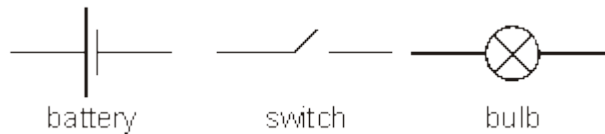
Why are the bulbs not lit in this circuit?



.....

1 mark

- (c) Draw a circuit diagram of Daniel's circuit. Use these symbols.

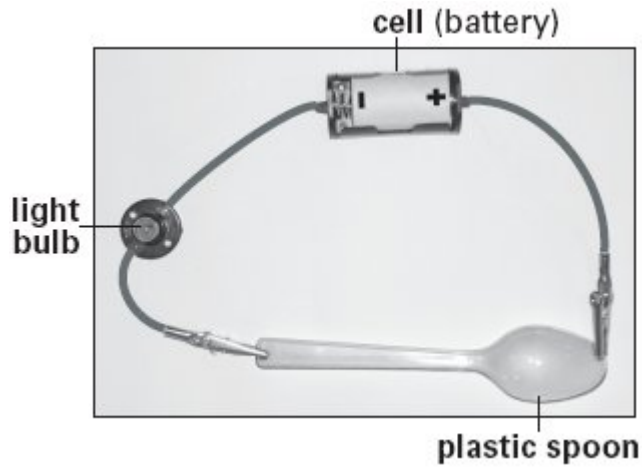


1 mark

Electricity

- (a) Shana builds the three circuits below. All the equipment works. The bulbs in the circuits are **not** lit up.

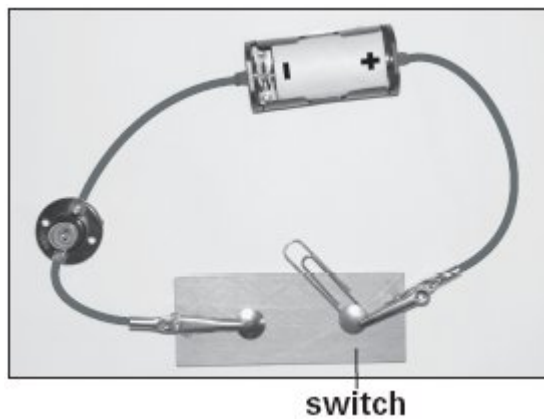
Complete each sentence to explain why the bulb has not lit in each circuit.



The bulb has **not** lit because the plastic spoon

.....

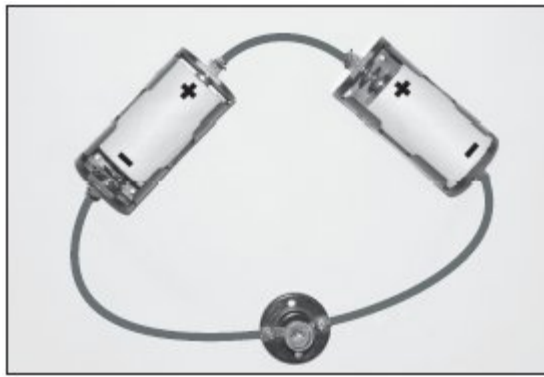
1 mark



The bulb has **not** lit because

.....

1 mark

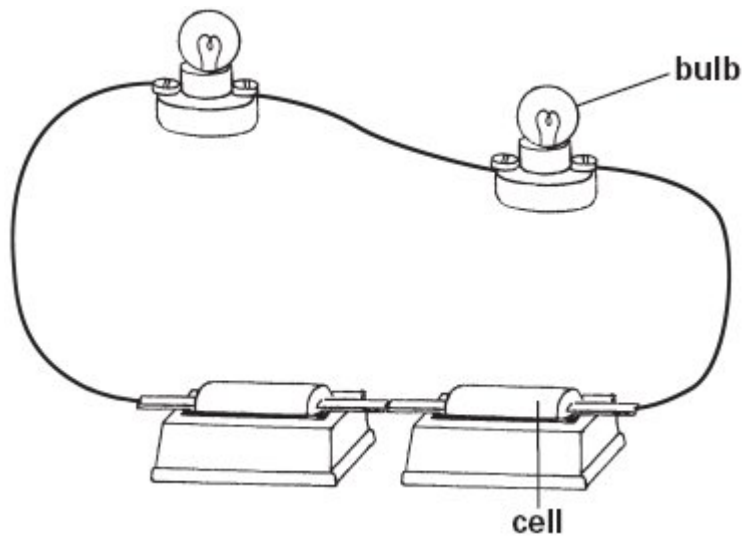


 The bulb has **not** lit because

.....

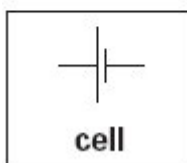
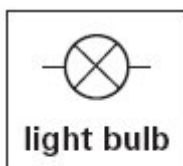
1 mark

(b) Andy builds the circuit below. The bulbs **do** light up.



Draw a circuit diagram for Andy's circuit in the space below.

Use these symbols in your circuit diagram:



1 mark

- (c) Andy wants to change his circuit so that the **two** bulbs are brighter.
He can use any other equipment.

Suggest **TWO** ways Andy can make his **two** bulbs brighter.



1.

1 mark

2.

1 mark