Anglo-Chinese School (Junior)

BITE-SIZED ASSESSMENT TWO (2025)
PRIMARY 5

SCIENCE

Friday 9 MAY 2025 45 min

INSTRUCTIONS TO PUPILS

DO NOT TURN OVER THE PAGES UNTIL YOU ARE TOLD TO DO SO

Follow all instructions carefully.

There are 10 questions in this booklet.

Answer ALL questions.

Name: _____)

Class: 5. (

	Possible Marks	Marks Obtained
TOTAL	25	

This question paper consists of 10 printed pages. (Inclusive of cover page)

Answer questions 1 to 10. The number of marks available is shown in the brackets [ ] at the end of each question. (25 marks)

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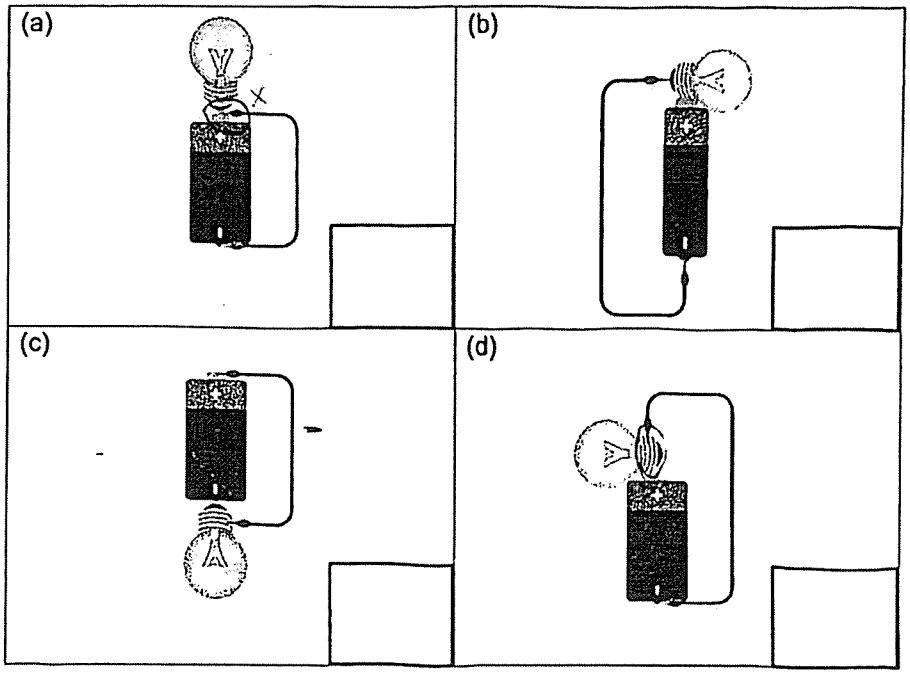
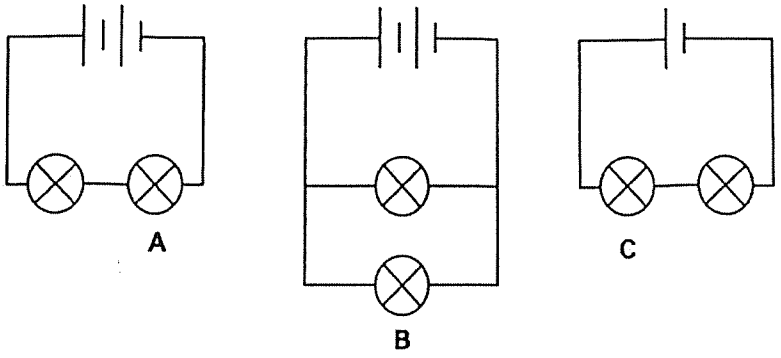
1. In which of the following circuits, will the bulb light up? Tick [✓] the box(es) next to the circuit(s) which the bulb will light up. [2]



2. Zayne sets up three electric circuits using identical batteries and bulbs in working condition.



Arrange the bulbs, A, B and C from the dimmest to the brightest. [1]

_____, _____, _____

dimmest **brightest**

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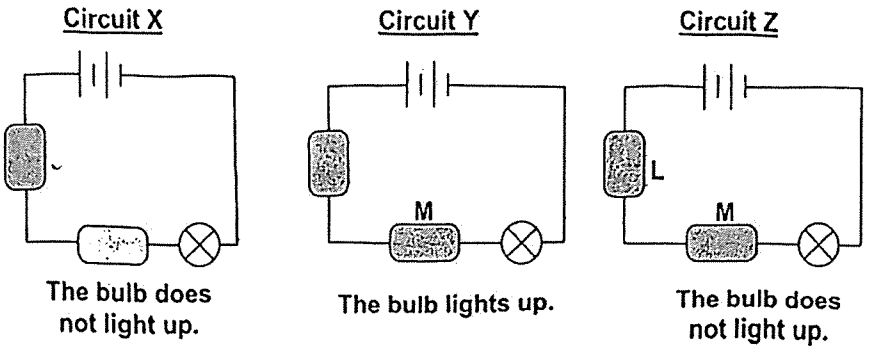
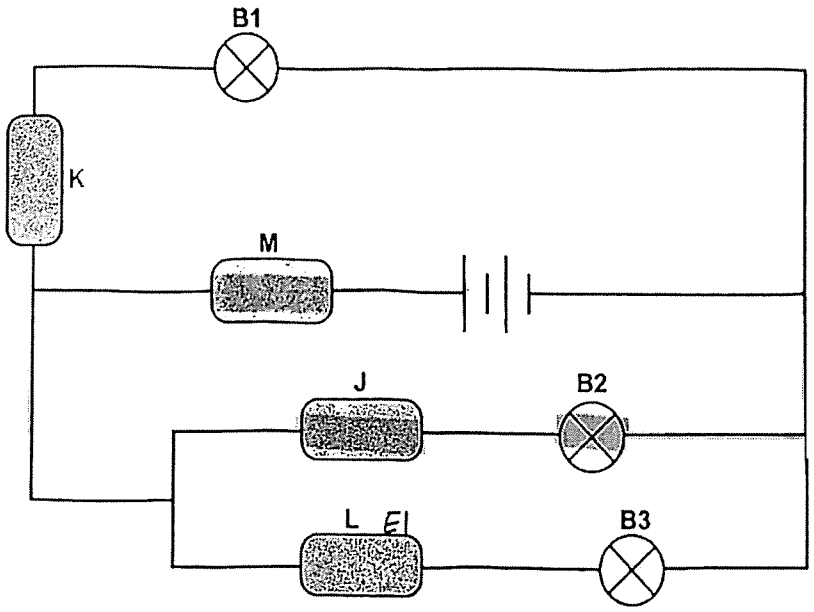
SCORE	/ 3

3. Elle connected different types of materials, J, K, L and M, in circuits X, Y and Z. Only the bulb in circuit Y lit up.



(a) Which materials, J, K, L and M are electrical insulators? Explain your answer. [2]

Elle sets up another circuit using materials J, K, L and M as shown below.



(b) Which bulb(s), B1, B2 or B3, will light up in this circuit? [1]

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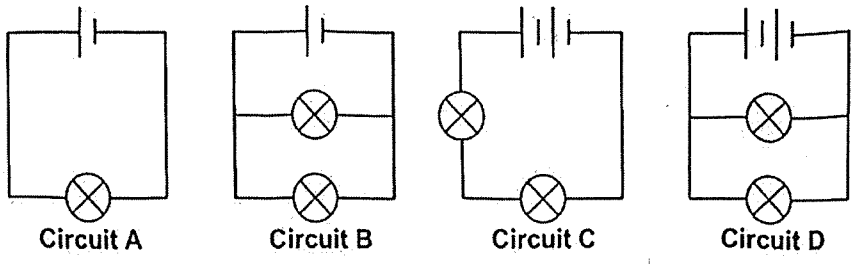
SCORE	/ 3

4. Ray wants to find out how the arrangement of bulbs affect the brightness of bulbs in a circuit. He sets up the following circuits using bulbs and batteries in working condition.



(a) Which circuits should Ray use to conduct a fair test? [1]

_____

(b) State two other variables that Ray should keep the same to ensure a fair test. [1]

_____

_____

(c) Ray used circuits B and D for another investigation. State the aim of his investigation. [1]

_____

_____

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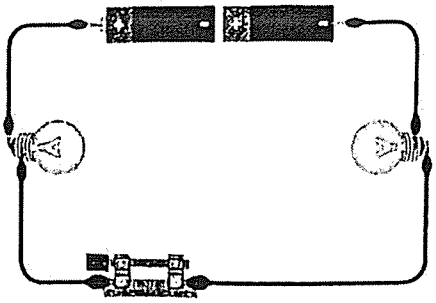
SCORE	
	3

5. Ali set up a circuit as shown.



(a) Draw a circuit diagram that represents Ali's circuit. [1]

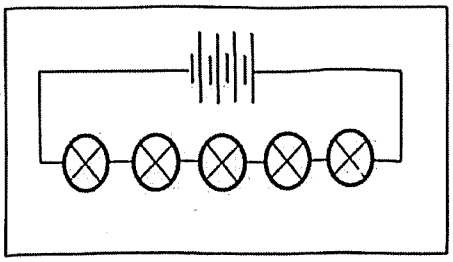
(b) Ali added two more batteries in series to his circuit and observed that neither of the bulbs lit up. Give a reason for his observation. [1]

(c) Draw a circuit diagram with wires, two batteries, two bulbs and a switch. Position the switch such that one bulb is lit all the time while the other bulb can be controlled by the switch. [2]

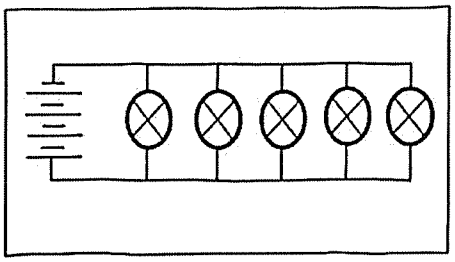
(Go on to the next page)

SCORE	/ 4

6. Mr Lee bought fairy lights B for his son's birthday party after comparing fairy lights A and B.



Fairy lights A



Fairy lights B

(a) State two advantages of fairy lights B. [2]

Advantage 1:

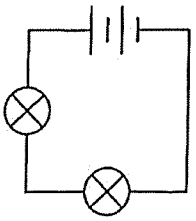
_____

Advantage 2:

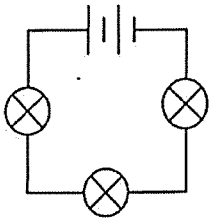
_____

Mr Lee wanted to investigate how the bulbs arranged in series affects the brightness of the bulbs in a circuit. He sets up the circuits as shown.

Bulb A



Bulb B



He noticed that bulb A was brighter than bulb B.

(b) What is the relationship between the number of bulbs arranged in series and their brightness in the circuit? [1]

_____

_____

(Go on to the next page)

SCORE	/ 3

7. Haris was given a circuit card with metal clips A, B, C, D, E and F as shown in figure 1. The metal clips were connected using wires at the back of the card. He set up a circuit tester as shown in figure 2 and connected points X and Y to the metal clips.

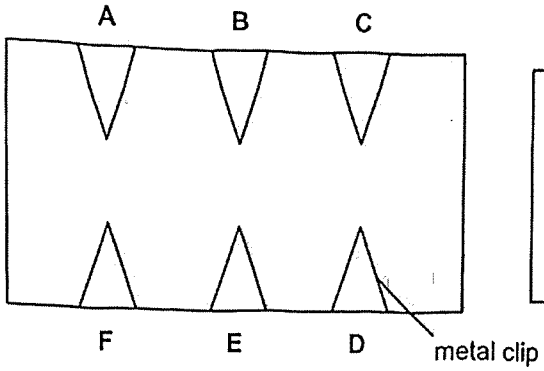


Figure 1
Front of circuit card

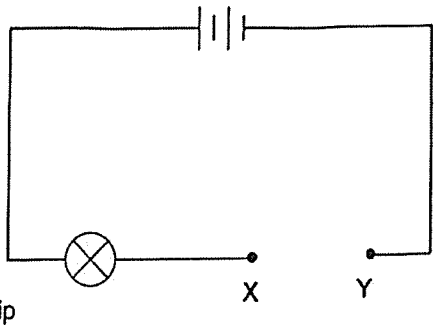
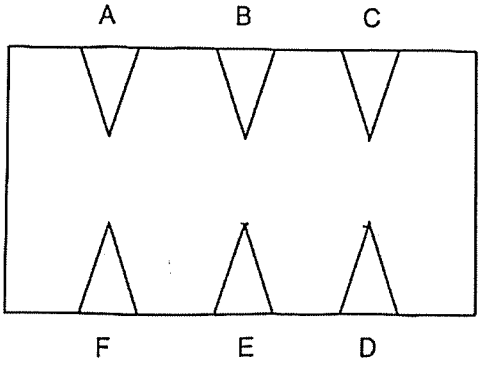


Figure 2
Circuit tester

He recorded his observations in a table.

Clips connected	Did the bulb light up?
A and B	No
A and C	Yes
A and D	Yes
E and F	No
C and E	Yes

(a) Draw the **least** number of lines to show how the wires were connected at the back of the card. [1]



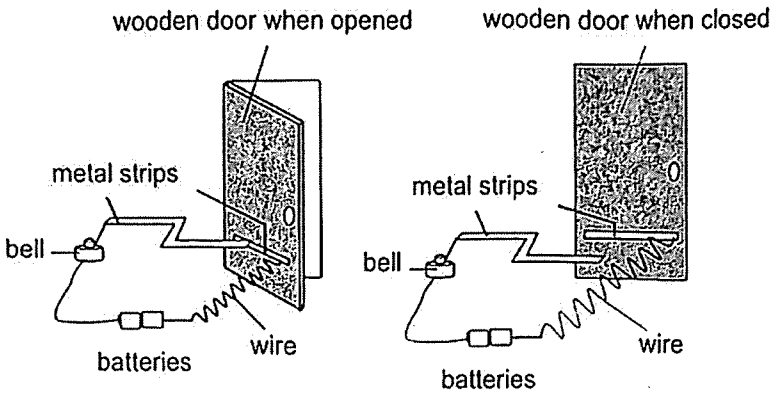
Back of circuit card

(b) What will Haris observe about the bulb if he connects points X and Y to clips B and F? [1]

(Go on to the next page)

SCORE	
	2

8. Munirah made a model of an automatic door alarm system with a bell, two batteries and some wires and metal strips as shown. When the system is activated, the house owners will be alerted when there is a burglar who enters the house.



(a) Explain how the system works when the door was opened. [2]

(b) Munirah's brother told her that the bell was too soft to be heard. Without changing the bell, suggest what Munirah can do to make the bell produce a louder sound. [1]

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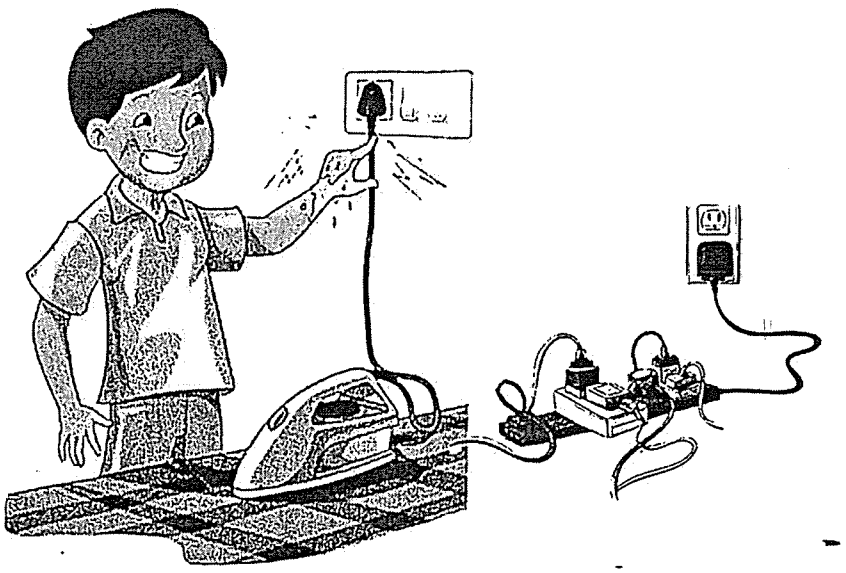
SCORE / 3

9. The picture shows electrical hazards when electricity is used in Ben's home.



State two measures that Ben should take to use electricity safely. [2]

Safety measure 1:

_____

_____

Safety measure 2:

_____

_____

(Go on to the next page)

SCORE	/ 2

10. Read and follow the step-by-step instructions carefully.

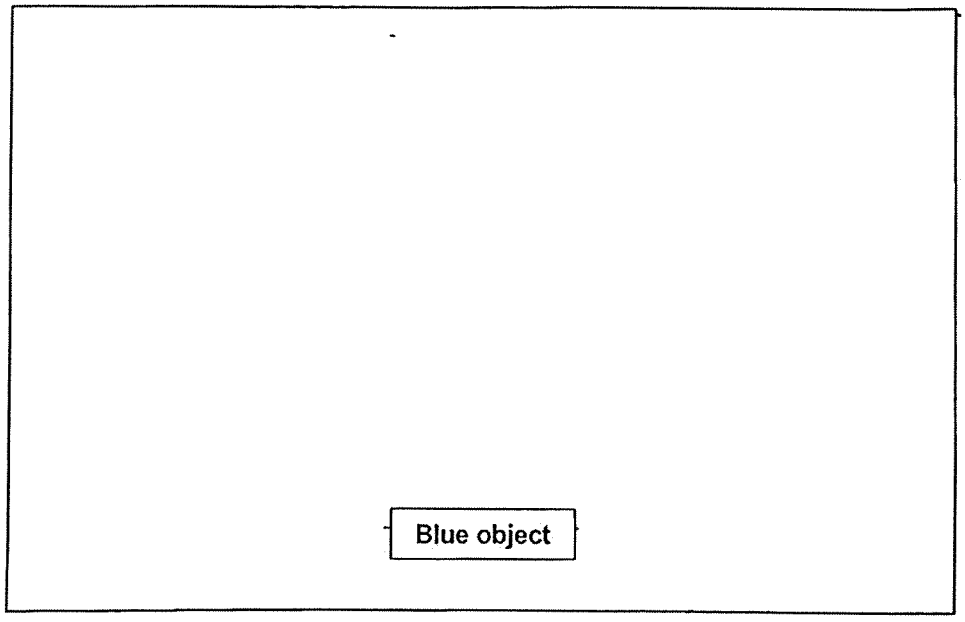
Steps:

1) Your teacher will give you a bag with a blue and silver object.
2) Use the objects and your electricity kit to answer parts (a) and (b).
3) Using the components in your electricity kit, test that your bulb and battery are in working condition.

(a) Test which object(s), blue and/or silver, is/are electrical conductor(s) and tick (✓) the correct box(es). [1]

Object	Tick (✓) conductor of electricity
Blue	
Silver	

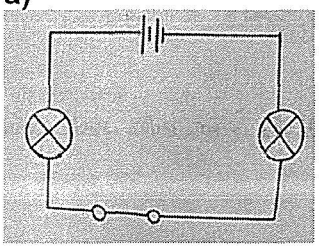
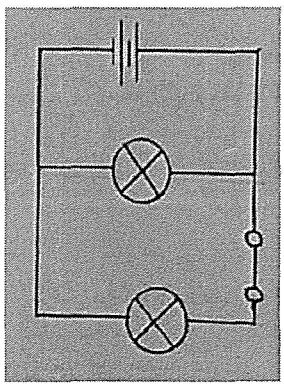
(b) Complete the circuit diagram in the box, to show how you tested the blue object. [1]

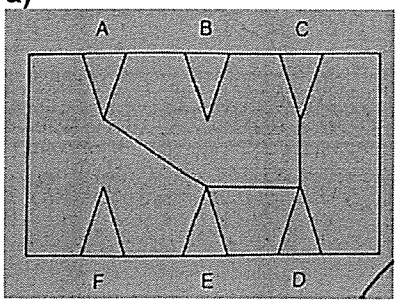


End of Paper

SCORE	/ 2

SCHOOL : ACSJ SCHOOL
LEVEL : PRIMARY 5
SUBJECT : SCIENCE
TERM : WA2 2025

Q1)	b,c
Q2)	C, A, B
Q3)	a) C: K and L. E: Bulbs in circuit with K and L did not light up. B: current electricity could not flow through the open circuit. b) B2 will light up.
Q4)	a) Circuit C and D. b) The type of batteries and the type of bulbs. c) To find out if the amount batteries affect the brightness of the bulbs in the circuit.
Q5)	a)  b)The amount of electric current was too much and either one or both bulbs fused. c) 
Q6)	a) Advantage 1:When one bulb fuses all the other bulbs will remain lit.

	Advantage 2: The bulbs in fairy lights B will be brighter than the bulbs in fairy lights A. b)As the number of bulbs arranged in series increases, their brightness in the circuit decreases.
Q7)	a)  b)The bulb will not light up.
Q8)	a) When the door is opened, the two pieces of metal strips will come into contact and it will form a closed circuit, allowing electricity to flow through the circuit and the bell will ring. b) Munirah could add more batteries.
Q9)	Safety measure 1: Ben should dry his hands before touching the switch. Safety measure 2: Ben should decrease the amount of plugs plugged into a socket.
Q10)	a) Silver b)