

Test: Primary 5 Science (Term 3) - ACS

Points: 24 points

Name: _____

Score: _____

Date: _____

Signature: _____

Select multiple choice answers with a cross or tick:

Only select one answer

Can select multiple answers

Question 1 of 26

Primary 5 Science (Term 3) 2 pts

For each question, four options are given. One of them is the correct answer. Choose the correct option (A, B, C or D) below. (11 x 2 marks)

The table below shows some information about three substances, A, B and C. A tick (✓) indicates that the substance has that property.

Properties	Substance		
	A	B	C
Has a definite shape	✓		
Occupies space	✓	✓	✓
Has a definite volume	✓		✓

Which of the following correctly identifies the state of each substance?

- A)

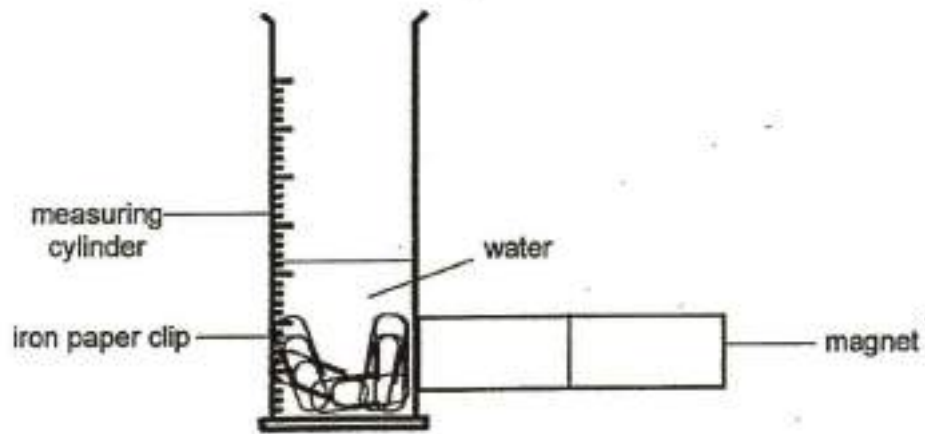
Substance A	Substance B	Substance C
liquid	solid	gas
- B)

Substance A	Substance B	Substance C
solid	liquid	gas
- C)

Substance A	Substance B	Substance C
solid	gas	liquid
- D)

Substance A	Substance B	Substance C
gas	solid	liquid

Nora was given a measuring cylinder with water and iron paper clips. She decided to use a magnet to remove the paper clips. She placed the magnet as shown and slid it up until the paper clips were removed.

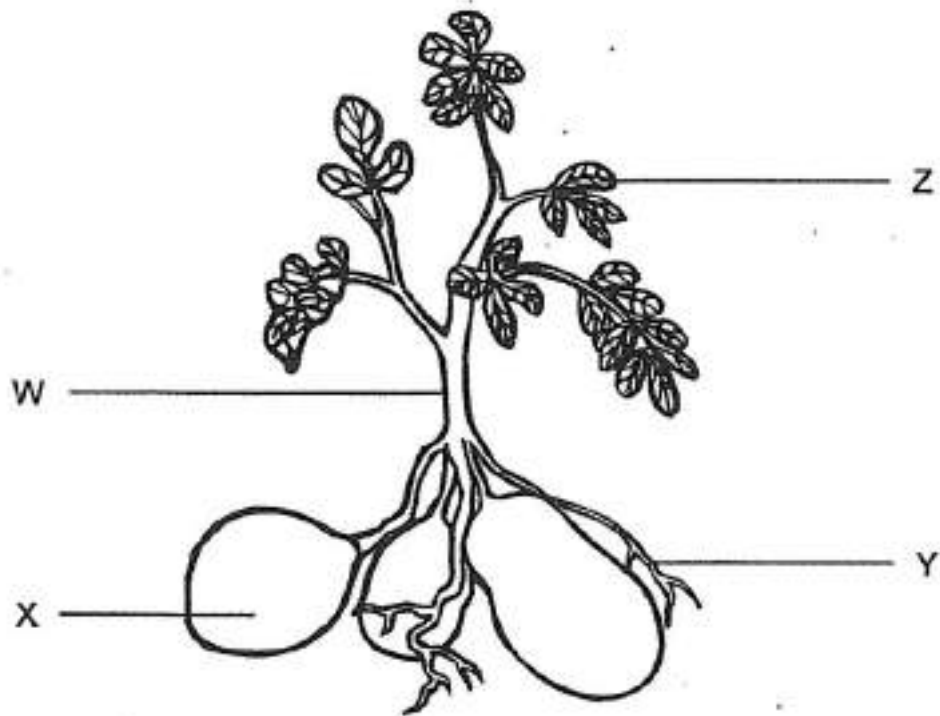


What characteristic(s) of a magnet is/are applied in her experiment?

- A: Magnets repel each other.
- B: Magnets attract magnetic materials.
- C: The magnetic force is the strongest at its poles.
- D: Magnetic force can pass through some materials

-
- A) B only
 - B) B and D only
 - C) A and C only
 - D) A, C and D only

Maya observed the potato plant shown.



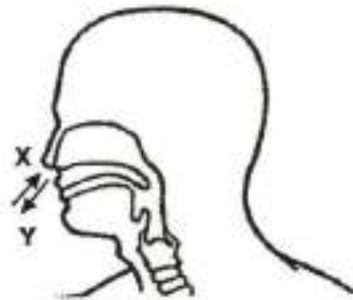
She made some statements about the potato plant.

- A: Z makes food for the plant.
- B: X stores excess food for the plant.
- C: Y absorbs water and mineral salts from the soil
- D: W has tubes that carry only food from one part of the plant to another.

Which of her statements are correct?

-
- A) A and C only
 - B) B and D only
 - C) A, B and C only
 - D) A, B, C and D only

The diagram shows a part of the human respiratory system. X represents air entering the nose and Y represents air leaving the nose.

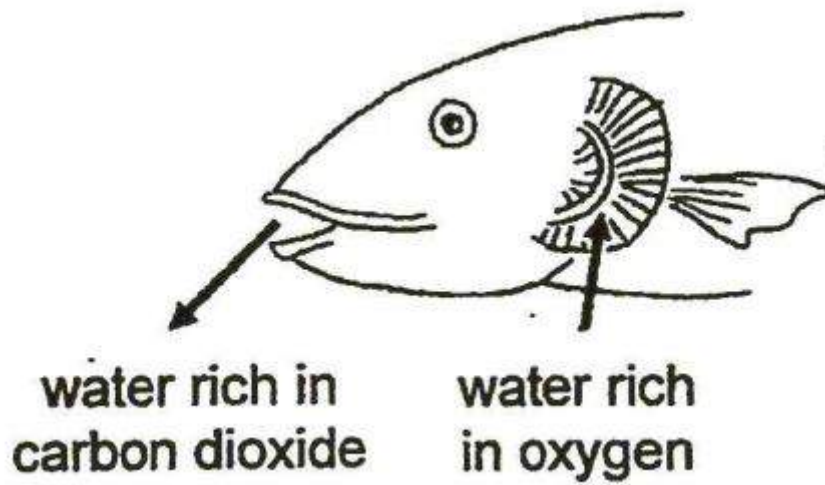


Which of the following correctly compares X and Y?

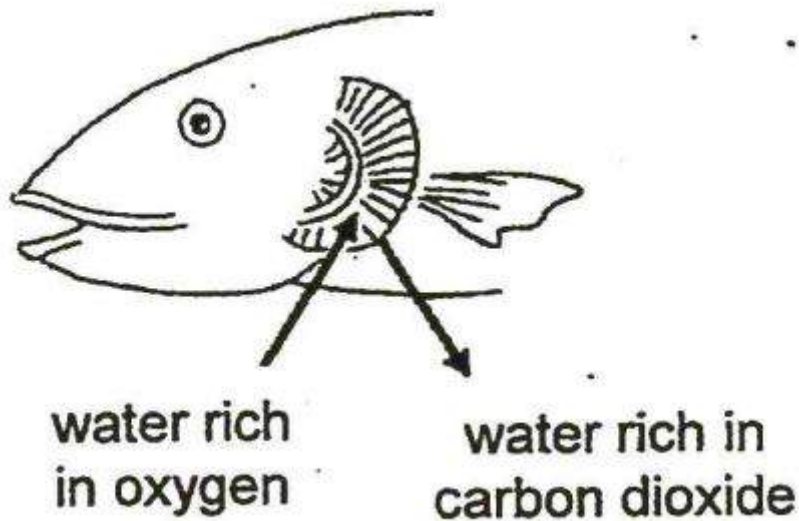
- A)
- | X | | | Y | | |
|------------------|--------------------------|------------------------|------------------|--------------------------|------------------------|
| Supply of oxygen | Supply of carbon dioxide | Supply of water vapour | Supply of oxygen | Supply of carbon dioxide | Supply of water vapour |
| rich | poor | poor | poor | rich | rich |
- B)
- | X | | | Y | | |
|------------------|--------------------------|------------------------|------------------|--------------------------|------------------------|
| Supply of oxygen | Supply of carbon dioxide | Supply of water vapour | Supply of oxygen | Supply of carbon dioxide | Supply of water vapour |
| rich | poor | rich | poor | rich | poor |
- C)
- | X | | | Y | | |
|------------------|--------------------------|------------------------|------------------|--------------------------|------------------------|
| Supply of oxygen | Supply of carbon dioxide | Supply of water vapour | Supply of oxygen | Supply of carbon dioxide | Supply of water vapour |
| poor | rich | rich | rich | poor | poor |
- D)
- | X | | | Y | | |
|------------------|--------------------------|------------------------|------------------|--------------------------|------------------------|
| Supply of oxygen | Supply of carbon dioxide | Supply of water vapour | Supply of oxygen | Supply of carbon dioxide | Supply of water vapour |
| poor | rich | poor | rich | poor | rich |

Which diagram shows how a fish breathes?

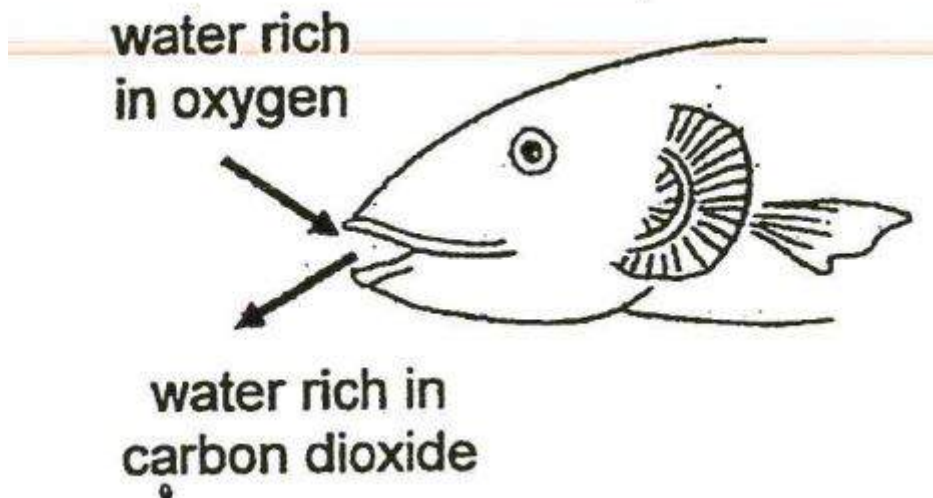
A)



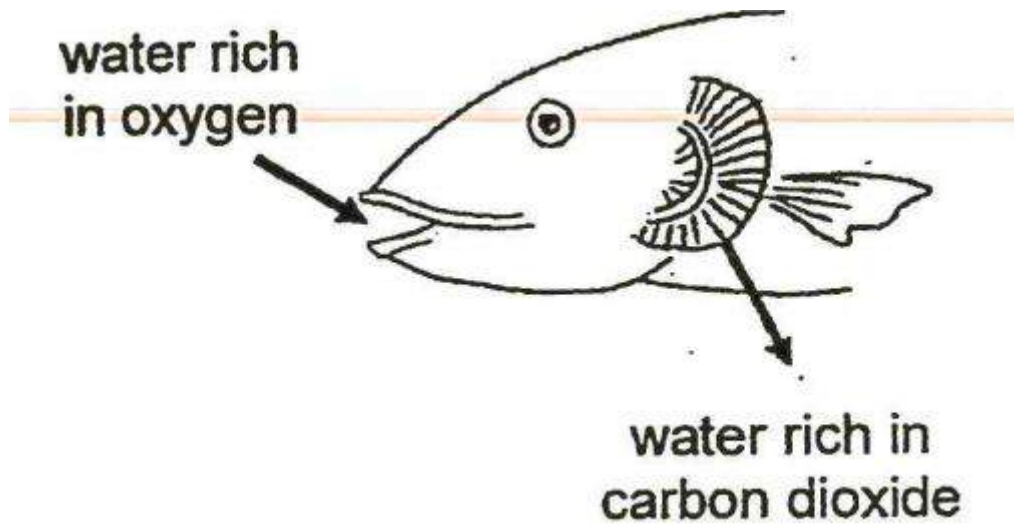
B)



C)



D)



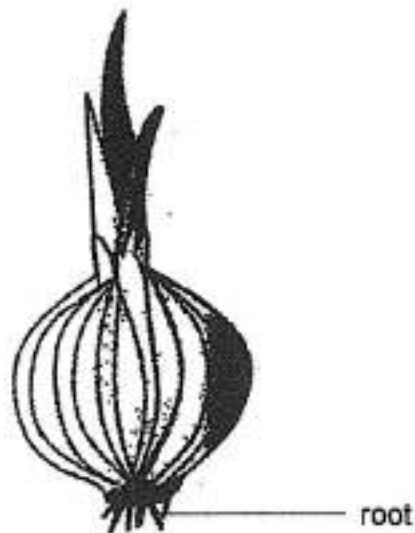
Question 6 of 26

Primary 5 Science (Term 3) 2 pts

Study the table of Cells W, X, Y and Z. A tick (✓) indicates that the cell part is present.

Cell Part	Cell W	Cell X	Cell Y	Cell Z
Cytoplasm	✓	✓	✓	✓
Cell membrane	✓	✓	✓	✓
Cell wall			✓	✓
Nucleus		✓	✓	✓
Chloroplast				✓

The diagram shows an onion.



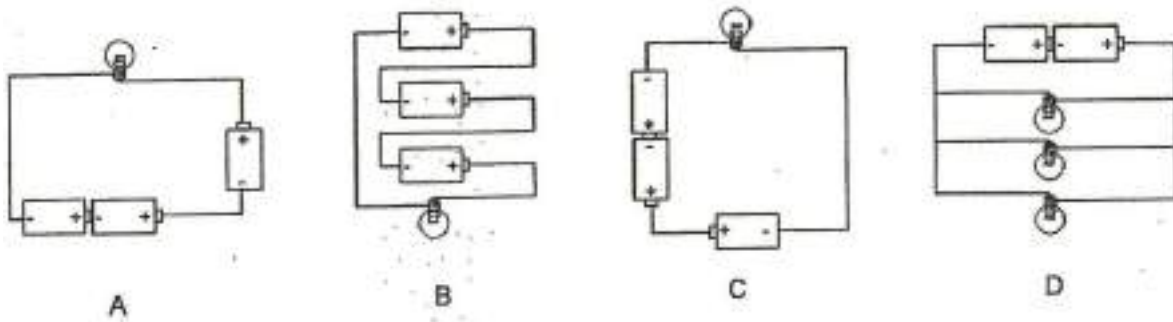
Which cell most likely represents the root of the onion?

- A) Cell W
- B) Cell X
- C) Cell Y
- D) Cell Z

Question 7 of 26

Primary 5 Science (Term 3) 2 pts

The diagrams below show some electrical circuits. Which circuits will produce the most brightly lit bulbs?

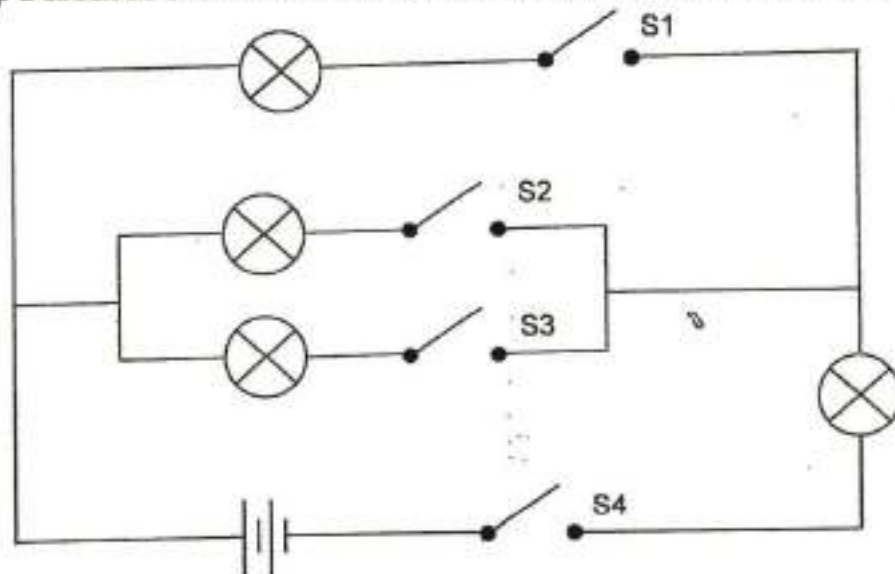


- A) A and B only
- B) A and C only
- C) A, B and C only
- D) B, C and D only

Question 8 of 26

Primary 5 Science (Term 3) 2 pts

Shay set up a circuit as shown. All batteries and bulbs were in working condition.

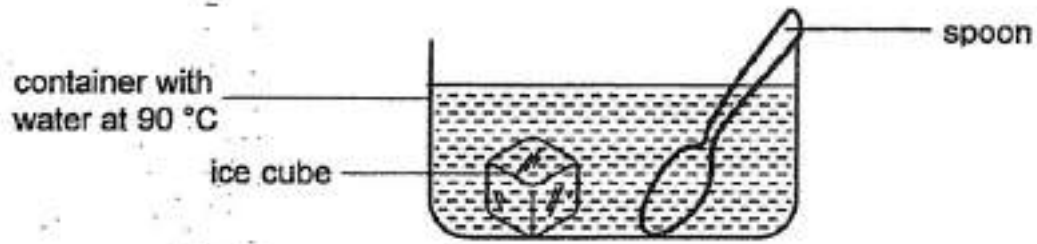


All the bulbs were lit when all the switches were closed. No bulbs lit up when he opened one of the switches.

Which switch did he open?

- A) S1
- B) S2
- C) S3
- D) S4

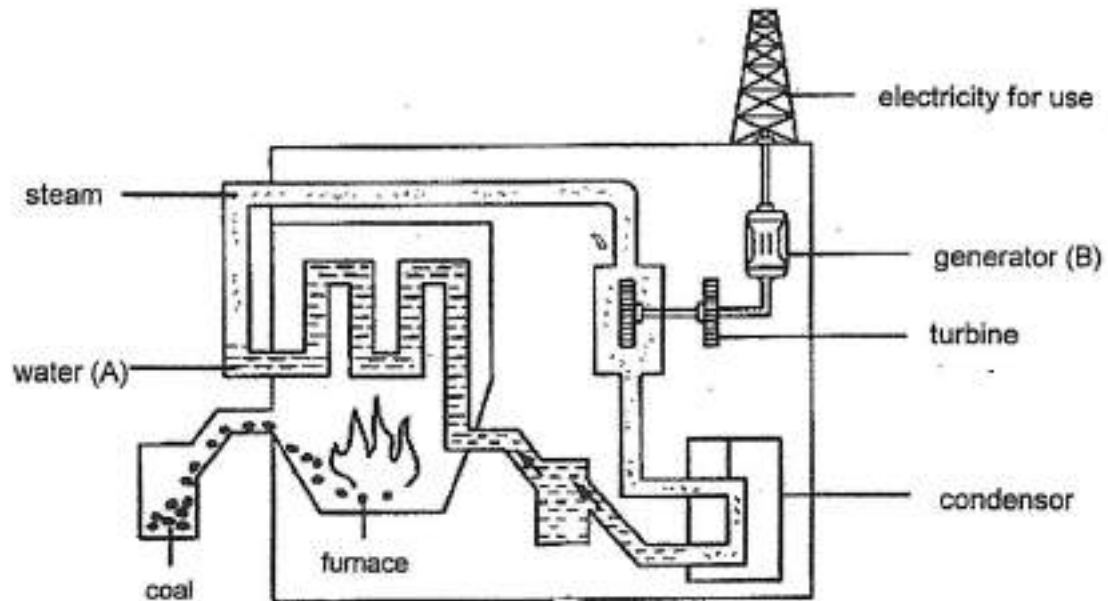
Mr Seng places a spoon and an ice cube into a container of hot water of 90°C .



Which of the statements below is incorrect?

-
- A) The water loses heat to the ice cube.
 - B) The ice cube loses heat to the water.
 - C) The spoon gains heat from the water.
 - D) The spoon loses heat to the surrounding air.

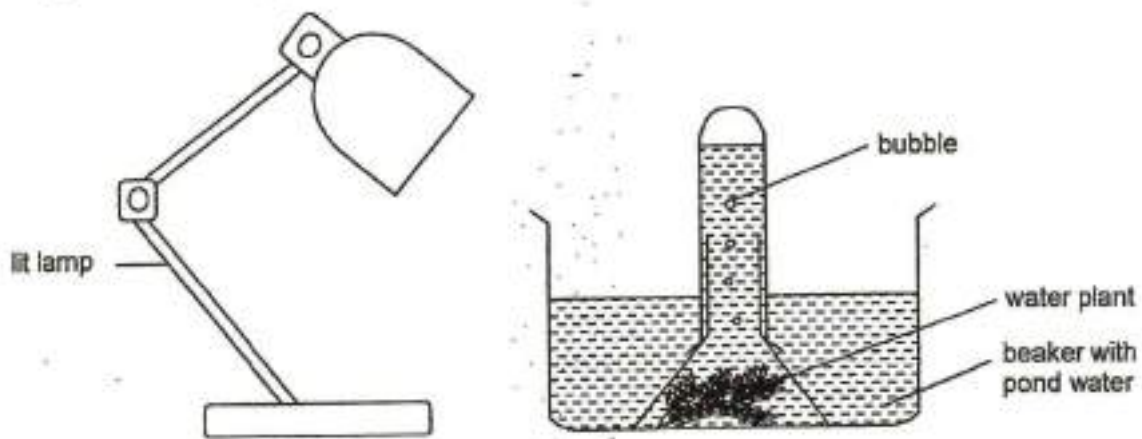
The diagram shows the main parts of a power station. Coal is burnt to change water into steam which is then used to turn the turbine.



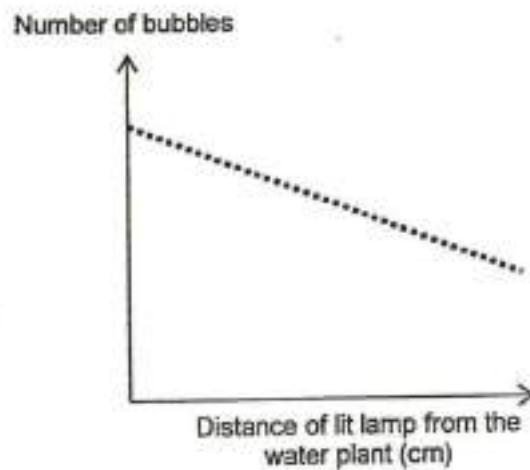
Which of the following correctly shows the main energy changes from A to B in the diagram?

- A) heat energy --> heat energy --> kinetic energy --> kinetic energy
- B) kinetic energy --> heat energy --> kinetic energy --> electrical energy
- C) heat energy --> kinetic energy --> kinetic energy --> electrical energy
- D) chemical potential energy --> heat energy --> kinetic energy --> kinetic energy --> electrical energy

Bryan set up an experiment as shown.



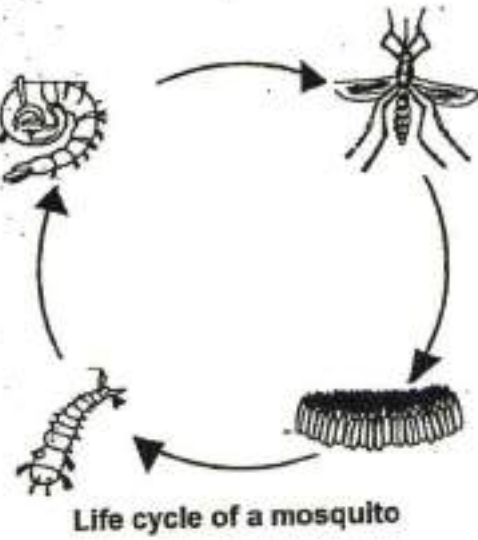
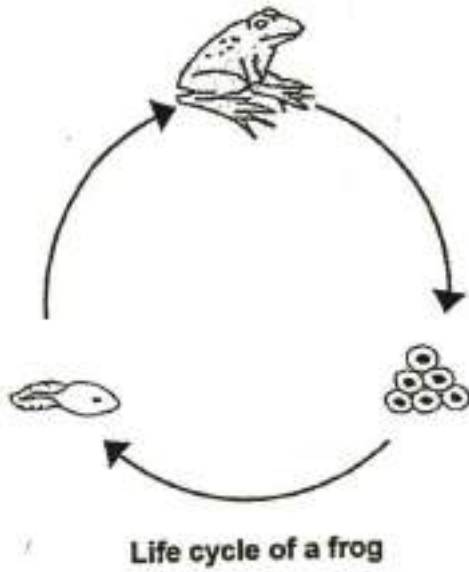
He then plotted a graph based on the number of bubbles produced.



Which of the following shows the best relationship between the distance of the lit lamp from the water plant and the rate of photosynthesis based on the graph?

- A) The distance of the lit lamp from the water plant affects the rate of photosynthesis.
- B) The distance of the lit lamp from the water plant has no effect on the rate of photosynthesis.
- C) As the distance of the lit lamp from the water plant increases, the rate of photosynthesis decreases.
- D) As the distance of the lit lamp from the water plant decreases, the rate of photosynthesis decreases.

Compare the two life cycles.



State a similarity and a difference between the two life cycles. (2 marks)

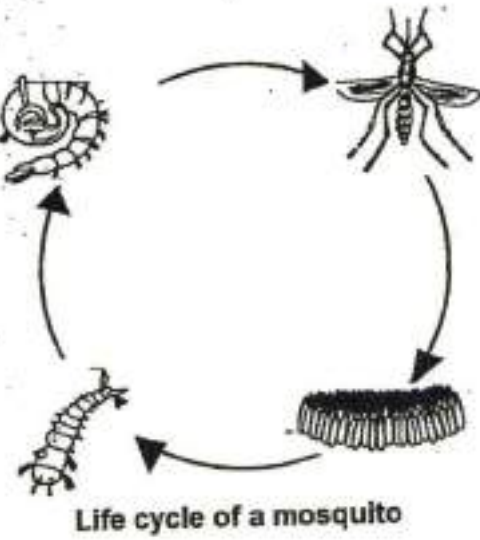
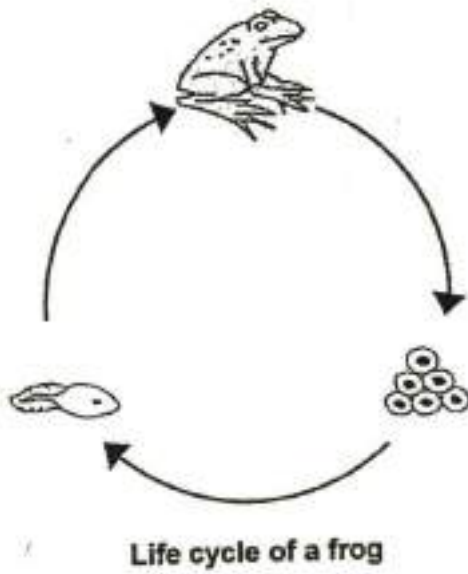
Similarity: _____

Difference: _____

This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.

Grading: This question type is not graded on this system and will not affect the final score as it was designed in such a way that it requires manual assistance.

Compare the two life cycles.

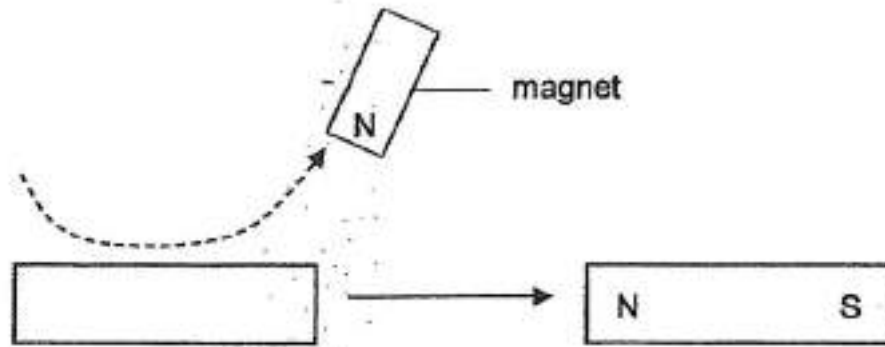


State the difference in the way the young and the adult frog breathe. (1 mark)

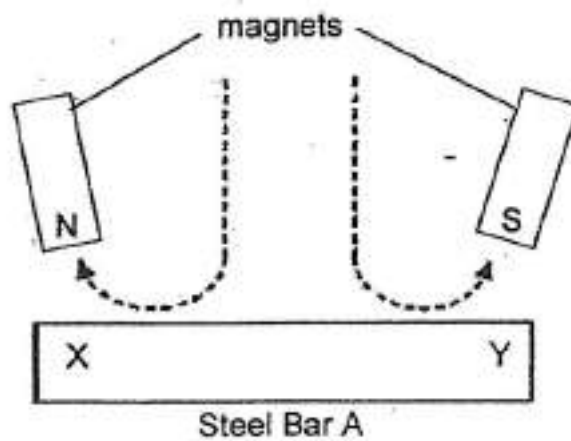
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An iron bar was magnetised using the "stroke" method as shown.



Two magnets were used to magnetise Steel Bar A using the same method.



Identify the poles of Steel Bar A at X and Y respectively.

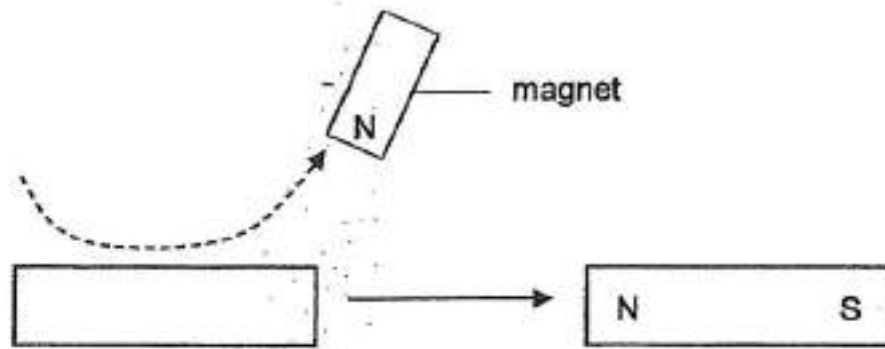
1. [] At X: _____

A. North Pole

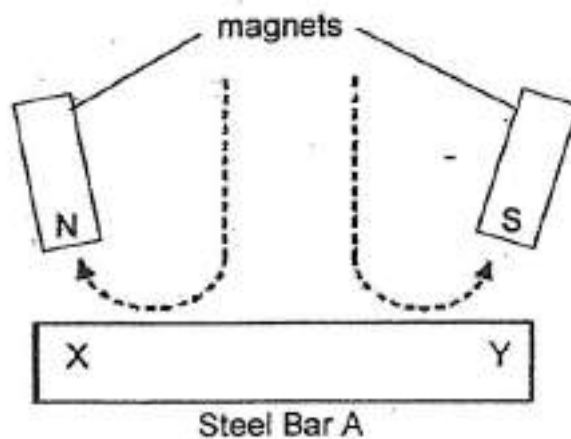
2. [] At Y: _____

B. South Pole

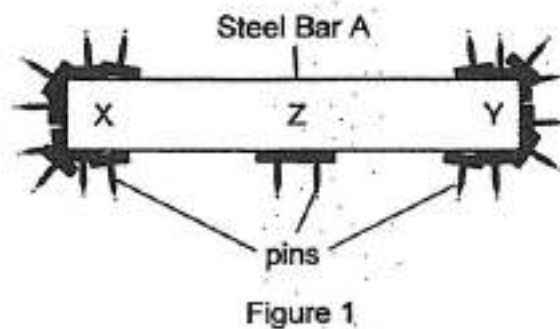
An iron bar was magnetised using the "stroke" method as shown.



Two magnets were used to magnetise Steel Bar A using the same method.



Jo dipped Steel Bar A into a tray of iron pins. He observed the following result shown in Figure 1.



What can Jo conclude about the magnetic strength of parts X, Y and Z of Steel Bar A based on his result? (1 mark)

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Question 16 of 26

Primary 5 Science (Term 3) 0 pts

Jo dipped Steel Bar A into a tray of iron pins. He observed the following result shown in Figure 1.

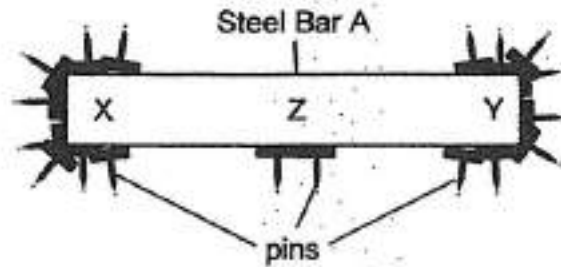


Figure 1

Jo was then given a rod. What can he do to find out if it is a magnet? (1 mark)

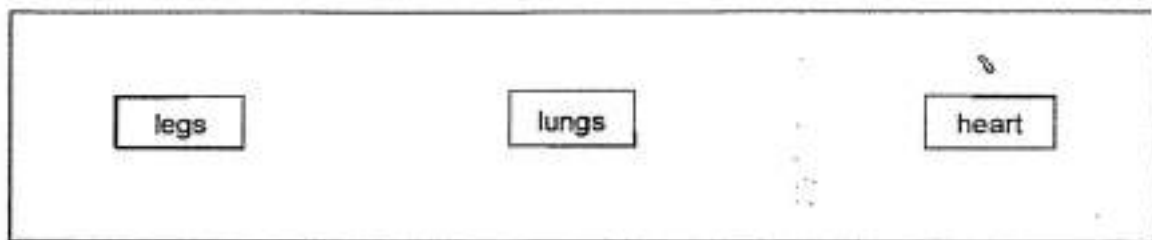
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Question 17 of 26

Primary 5 Science (Term 3) 0 pts

The diagram below shows three parts of a human body.



In the diagram, draw arrows to show how blood rich in oxygen is circulated to the legs. (1 mark)

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Question 18 of 26

Primary 5 Science (Term 3) 0 pts

Explain clearly the function of the circulatory system. (2 marks)

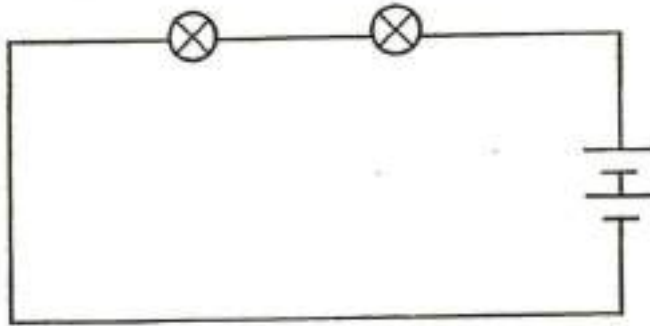
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Question 19 of 26

Primary 5 Science (Term 3) 0 pts

Nathan set up a circuit as shown. The bulbs and batteries are identical and in working condition.

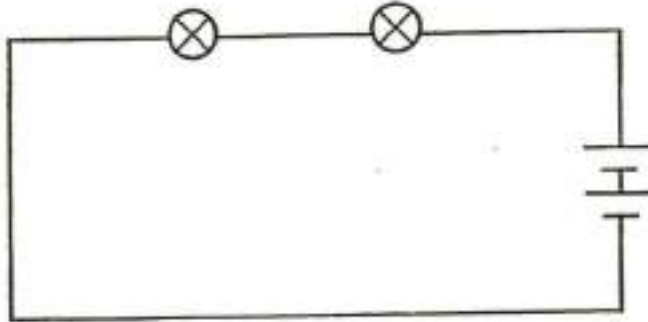


State two changes Nathan can make to the circuit so that each bulb will be brighter. (1 mark)

This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.

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Nathan set up a circuit as shown. The bulbs and batteries are identical and in working condition.



Nathan repeated the experiment with a different number of batteries. The results of the experiment are shown in the table based on a rating scale of 1 to 3 stars where 1 star represents the bulbs being least bright and 3 stars represent them being the brightest.

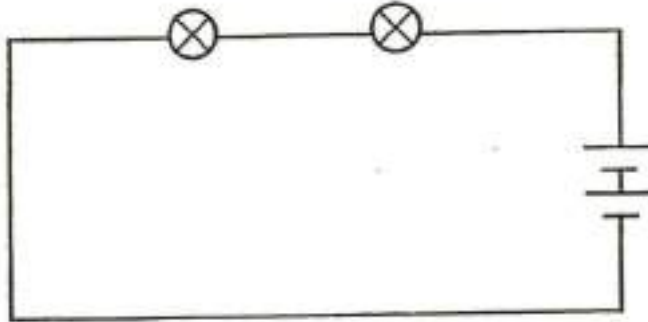
Number of batteries	Rating scale
3	★
4	★★
5	★★★

What was the aim of Nathan's experiment? (1 mark)

This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.

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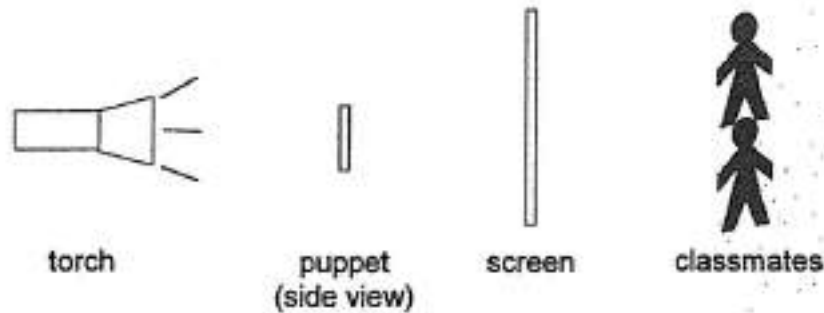
Number of batteries	Rating scale
3	★
4	★★
5	★★★

When a sixth battery was added to the circuit, the bulbs did not light up even though the batteries were arranged in the correct way. Explain why. (1 mark)

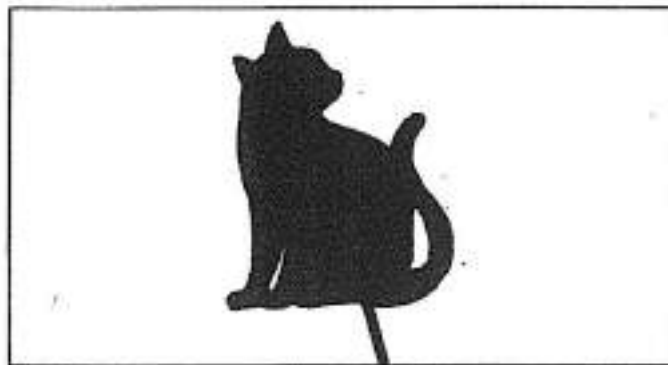
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Julie prepared a shadow puppet show for her classmates as shown. She made puppets using cardboard. Her classmates are only able to see dark shadows on the screen.



The diagram below shows a shadow cast by a puppet.

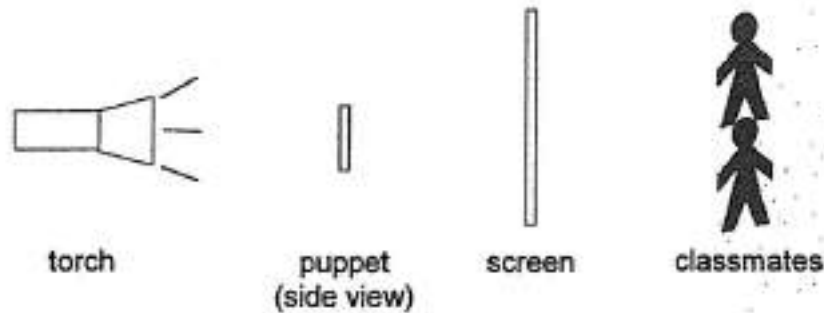


State two properties of light. (1 mark)

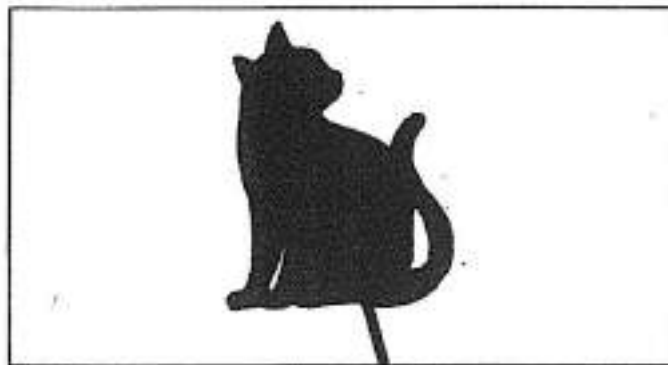
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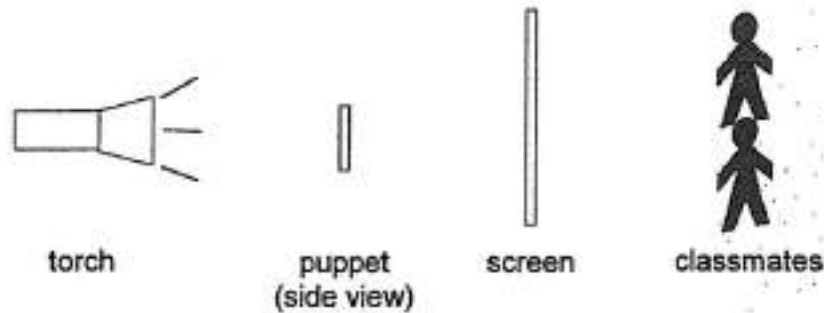


Explain clearly why her classmates were able to see the shadow of the puppet on the screen during the show. (1 mark)

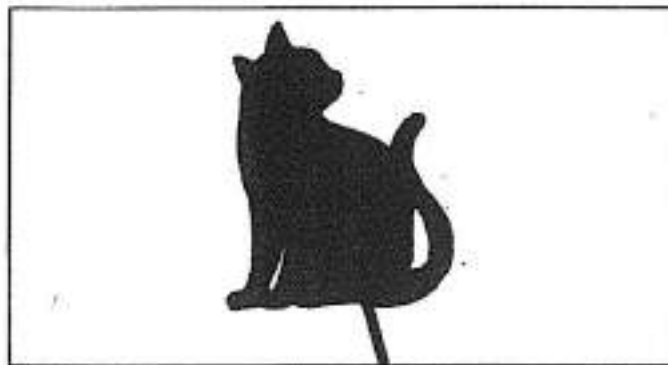
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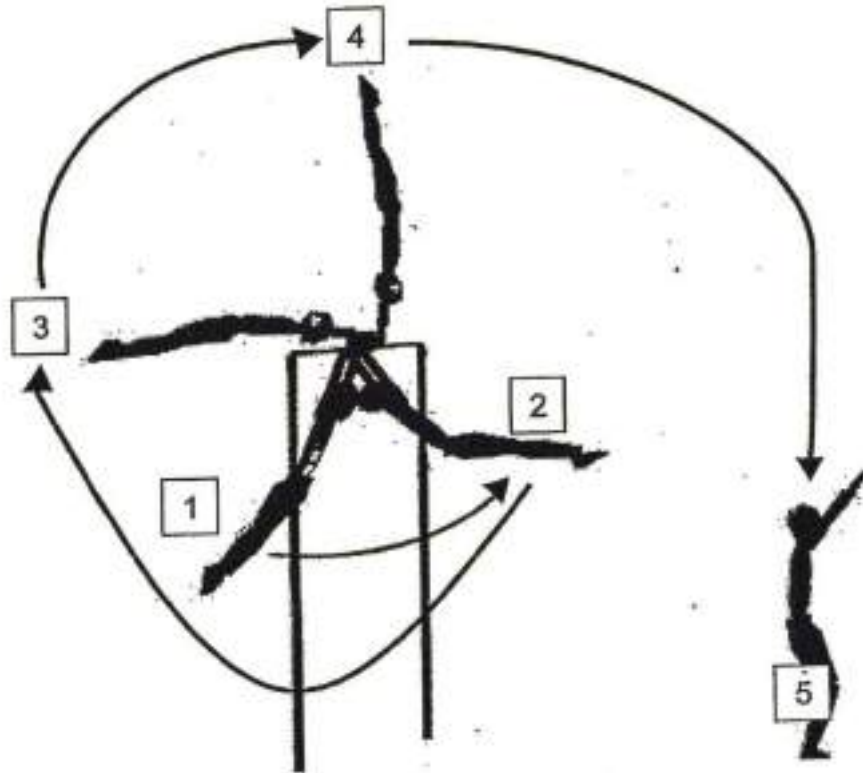


What can Julie do to make the shadow of the puppet appear bigger? (1 mark)

This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.

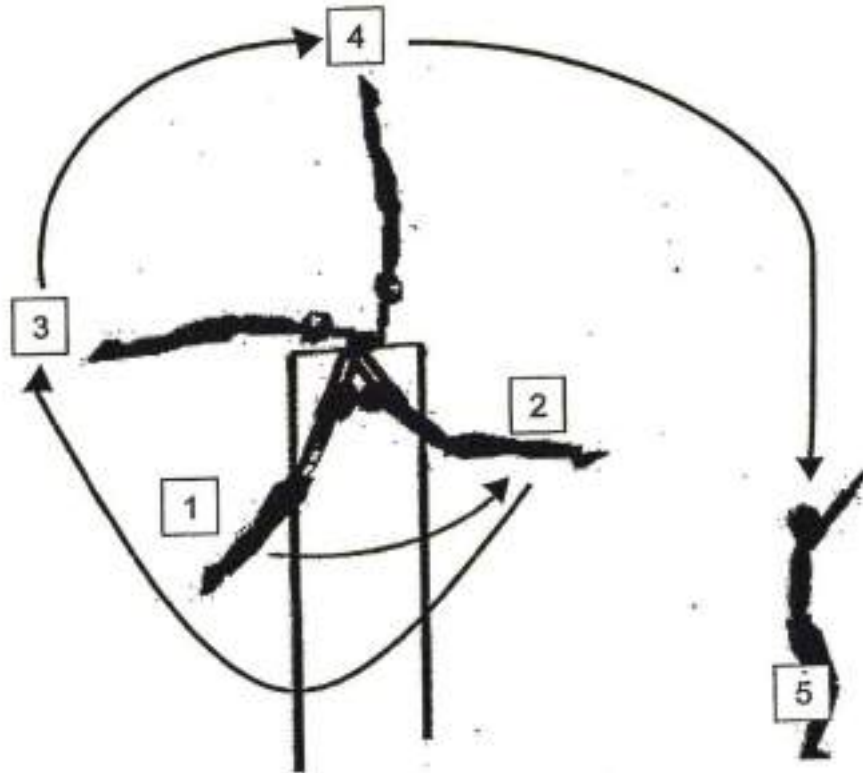
Grading: This question type is not graded on this system and will not affect the final score as it was designed in such a way that it requires manual assistance.

The diagram shows a gymnast swinging on a horizontal bar. Position 1 shows her starting point, where she swings forward to Position 2 before swinging backwards and over the bar. She releases her grip on the bar after Position 4 and lands at Position 5.



At which position does the gymnast possess the most gravitational potential energy?

The diagram shows a gymnast swinging on a horizontal bar. Position 1 shows her starting point, where she swings forward to Position 2 before swinging backwards and over the bar. She releases her grip on the bar after Position 4 and lands at Position 5.



Describe the energy conversion of the gymnast from Position 3 to Position 5. (2 marks)

This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.

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