



**NAME:** \_\_\_\_\_ **CLASS: VI** **SEC:** \_\_\_\_\_ **DATE:** \_\_\_\_\_

**SECTION – A**

1. Raima wanted to check whether a food sample contained protein, so she performed a laboratory test using chemicals. Which of the following shows the correct sequence of steps she should follow to test for protein?

- a. ii → iii → i → iv
- b. ii → i → iii → iv
- c. iii → ii → i → iv
- d. i → ii → iii → iv

i.	Add 2-3 teaspoons of water and two drops of copper sulphate solution.
ii.	Take the food sample (pasted/powdered) in a test tube.
iii.	Add 10 drops of caustic soda solution.
iv.	Observe the change in colour (violet).

2. Read the given statements and select the correct option.

Statement I: Solar panels use sunlight to generate electricity.

Statement II: Solar panels work efficiently on cloudy days as well.

- a. Both statements I and II are correct.
- b. Statement I is correct but statement II is incorrect.
- c. Statement I is incorrect but statement II is correct.
- d. Both statements I and II are incorrect.

3. In a clinic, Yuvan’s digital thermometer shows readings on both the Celsius and Fahrenheit scales at the same time. If Yuvan has a fever of 38°C, which Fahrenheit reading on the screen correctly matches it?

- a. 98.6°F
- b. 100°F
- c. 100.4°F
- d. 104°F

**SECTION-B**

4. Reema and Ajit learned from their teacher that fallen leaves decay to provide nutrients for new forest growth. Why is the decay of fallen leaves considered an example of recycling in nature?

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5. Sejal noticed that her body temperature was slightly decreased from 37.0°C, even though she felt perfectly healthy. Give a scientific reason to justify this observation.

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**SECTION C**

6. While returning from the fair, Sophia ran with the firki in her hand, and spun it joyfully, showing how an invisible force can create energy for our world.
- a. What makes a firki rotate?
  - b. Mention two common uses for windmills.
  - c. What do you mean by windmill farm?

OR

Gopal has a five-month-old brother. His grandmother insists on daily exposure to sunlight for baby.

- a. Why do you think exposure to sunlight for the newborn is essential?
- b. Draw one edible plant source and one edible animal source that help prevent a disease showing symptoms such as stunted growth, swelling of the face and legs, a distended abdomen, and discolouration of hair etc.

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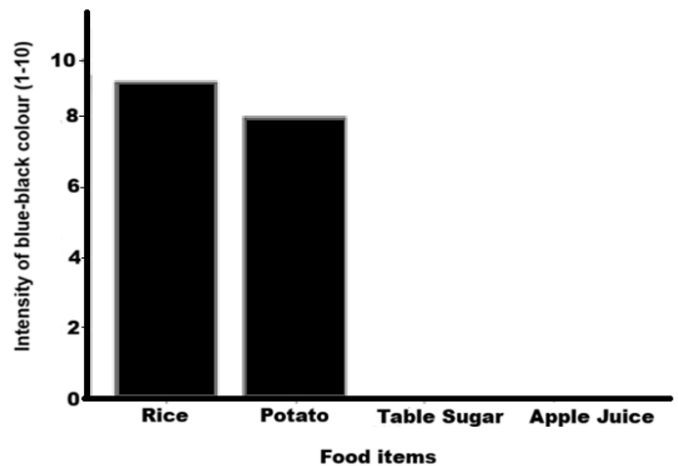
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**SECTION-D**

7. A student performed an iodine test on four different samples of carbohydrates to test the statement, "All starches are carbohydrates, but not all carbohydrates are starches." The results of the intensity of the blue-black colour change are shown in the bar graph.



a. Based on the graph, identify which samples contain starch.

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b. Explain how this graph supports the claim that not all carbohydrates are starches.

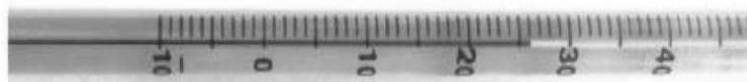
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8. Observe the part of thermometer shown in the figure and answer the following questions:



a. What type of thermometer is it?

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b. What is the reading of the thermometer?

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c. What is the smallest value that this thermometer can measure?

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**SECTION-E**

9. Green Valley High School is a large campus with 500 students and a sprawling garden. Every day, the school uses thousands of litres of water for restrooms, cleaning, and maintaining the greenery. Recently, the principal noticed that the monthly water bill has been increasing significantly despite the student count remaining the same.

a. According to the table, which area of the school consumes the most water daily?

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Area of School	Daily Water Usage (litres)	Method of Delivery
Restrooms	1,200	Manual Taps
School Garden	800	Large water pipes
Cleaning (Floors)	500	Bucket and mop
Canteen	600	Kitchen Faucets

b. Based on the table provided, suggest two specific steps the school can take to reduce the water usage in the garden and restrooms.

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c. How does spreading awareness among students help the environment?

- i. It increases the water bill.
- ii. It helps in the conservation of water for future use.
- iii. It encourages the use of more water pipes.
- iv. It decreases the number of plants in the garden.

d. What is the primary purpose of implementing rainwater harvesting in a school setting?

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NAME: \_\_\_\_\_

CLASS: VI

SEC: \_\_\_\_\_

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**SECTION - A**

1. Raima wanted to check whether a food sample contained protein, so she performed a laboratory test using chemicals. Which of the following shows the correct sequence of steps she should follow to test for protein?

- a. ii → iii → i → iv  
b. **ii → i → iii → iv**  
c. iii → ii → i → iv  
d. i → ii → iii → iv

i.	Add 2-3 teaspoons of water and two drops of copper sulphate solution.
ii.	Take the food sample (pasted/powdered) in a test tube.
iii.	Add 10 drops of caustic soda solution.
iv.	Observe the change in colour (violet).

2. Read the given statements and select the correct option.

Statement I: Solar panels use sunlight to generate electricity.

Statement II: Solar panels work efficiently on cloudy days as well.

- a. Both statements I and II are correct.  
b. **Statement I is correct but statement II is incorrect.**  
c. Statement I is incorrect but statement II is correct.  
d. Both statements I and II are incorrect.

3. In a clinic, Yuvan's digital thermometer shows readings on both the Celsius and Fahrenheit scales at the same time. If Yuvan has a fever of 38°C, which Fahrenheit reading on the screen correctly matches it?

- a. 98.6°F                      b. 100°F                      c. **100.4°F**                      d. 104°F

**SECTION-B**

4. Reema and Ajit learned from their teacher that fallen leaves decay to provide nutrients for new forest growth. Why is the decay of fallen leaves considered an example of recycling in nature?

**Ans: It is considered recycling because the leaves that fall from trees decay and enrich the soil with nutrients, which are then reused by new plants and trees to grow.**

5. Sejal noticed that her body temperature was slightly decreased from 37.0°C, even though she felt perfectly healthy. Give a scientific reason to justify this observation.

**Ans: The normal temperature of 37.0°C is an average value, and a healthy person's temperature may vary slightly. Body temperature is influenced by factors such as age, time of day, and activity level.**

### SECTION C

6. While returning from the fair, Sophia ran with the firki in her hand, and spun it joyfully, showing how an invisible force can create energy for our world.

a. What makes a firki rotate?

**Ans: It is the wind that makes a firki rotate.**

b. Mention two common uses for windmills.

**Ans: Windmills can be used to run flour mills and to generate electricity.**

c. What do you mean by windmill farm?

**Ans: A windmill farm is an area with a large number of windmills used to generate electricity.**

OR

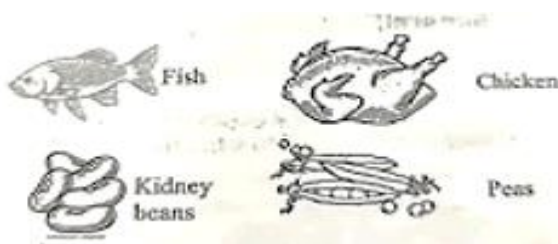
Gopal has a five-month-old brother. His grandmother insists on daily exposure to sunlight for baby.

a. Why do you think exposure to sunlight for the newborn is essential?

**Ans. Sunlight exposure has a lot of health benefits for infants; it helps the body to produce vitamin D that helps the body to absorb calcium. Also has a function of strengthening bones there by preventing rickets in children.**

b. Draw one edible plant source and one edible animal source that help prevent a disease showing symptoms such as stunted growth, swelling of the face and legs, a distended abdomen, and discolouration of hair etc

**Ans.**



### SECTION-D

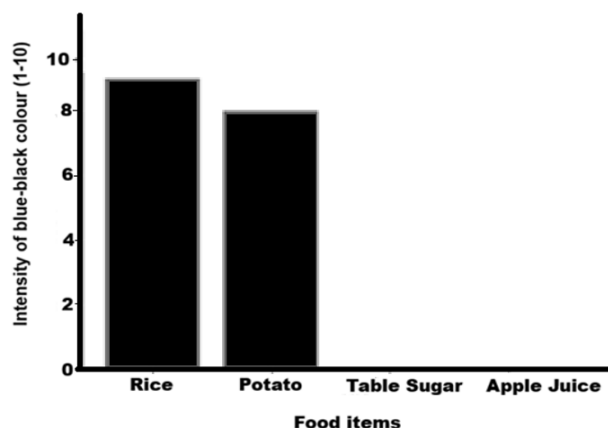
7. A student performed an iodine test on four different samples of carbohydrates to test the statement, "All starches are carbohydrates, but not all carbohydrates are starches." The results of the intensity of the blue-black colour change are shown in the bar graph.

a. Based on the graph, identify which samples contain starch.

**Ans. Rice and Potato are starches because they show a high intensity of blue-black colour in the iodine test.**

b. Explain how this graph supports the claim that not all carbohydrates are starches.

**Ans. While all four samples are carbohydrates, only the starches (Rice and Potato) reacted with iodine. The fact that Sugar and Apple Juice (which are also carbohydrates) showed no colour change proves that they are not starches, thereby confirming that not all carbohydrates are starches.**



8. Observe the part of thermometer shown in the figure and answer the following questions:



a. What type of thermometer is it?

**Ans: This is a laboratory thermometer, as it has a measuring range from -10 °C to 110 °C.**

b. What is the reading of the thermometer?

**Ans. The thermometer reading is 26 °C.**

c. What is the smallest value that this thermometer can measure?

**Ans: The smallest value this thermometer can measure is -10 °C, with 10 small lines representing each degree between any 10-degree intervals.**

### SECTION-E

9. Green Valley High School is a large campus with 500 students and a sprawling garden. Every day, the school uses thousands of litres of water for restrooms, cleaning, and maintaining the greenery. Recently, the principal noticed that the monthly water bill has been increasing significantly despite the student count remaining the same.

a. According to the table, which area of the school consumes the most water daily?

**Ans: The restrooms consume the most water, at 1,200 litres daily.**

Area of School	Daily Water Usage (litres)	Method of Delivery
Restrooms	1,200	Manual Taps
School Garden	800	Large water pipes
Cleaning (Floors)	500	Bucket and mop
Canteen	600	Kitchen Faucets

b. Based on the table provided, suggest two specific steps the school can take to reduce the water usage in the garden and restrooms.

**Ans: Two steps are**

- **fixing leaks in taps / turning off taps when not in use to stop restroom waste**
- **using sprinklers in the school garden instead of water pipes.**

c. How does spreading awareness among students help the environment?

- i. It increases the water bill.
- ii. **It helps in the conservation of water for future use.**
- iii. It encourages the use of more water pipes.
- iv. It decreases the number of plants in the garden.

d. What is the primary purpose of implementing rainwater harvesting in a school setting?

**Ans: To collect and store rainwater for cleaning and gardening purposes.**

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NAME: \_\_\_\_\_

CLASS: VI

SEC: \_\_\_\_\_

DATE: \_\_\_\_\_

**SECTION – A**

- Which step comes first in the scientific method?
  - Experiment
  - Hypothesis
  - Question
  - Observation
- Match the following terms with their appropriate meanings (in terms of water) and choose the correct option.

1. Boiling	a) Change of state from solid (ice) to liquid (water)
2. Condensation	b) Change in state from liquid (water) to gas (vapour)
3. Freezing	c) Cooling down of vapour to form water droplets
4. Melting	d) Change in state from liquid (water) to solid (ice)

- 1–b, 2–c, 3–d, 4–a
- 1–d, 2–a, 3–c, 4–b
- 1–b, 2–a, 3–d, 4–c
- 1–c, 2–b, 3–d, 4–a

**For the following question two statements are given – one labelled Assertion (A) and the other labelled Reason (R). Select the correct answer to the question from the options (i), (ii), (iii) and (iv) as given below:**

- Both A and R are true and R is the correct explanation of A.
- Both A and R are true but R is not the correct explanation of A.
- A is true but R is false.
- A is false but R is true.

3. Assertion (A): Earth is called a red planet.

Reason (R): Most of the earth is covered with water and appears blue from space.

4. A cluster of frogs egg that appears jelly like is known as \_\_\_\_\_.



8. Observe the given figure and answer the questions below:

a) Identify and name the given figure.

\_\_\_\_\_

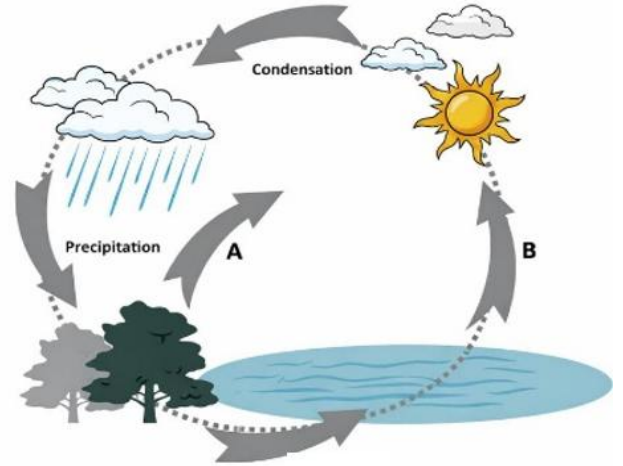
b) Name the processes shown in A and B.

\_\_\_\_\_

c) What is transpiration?

\_\_\_\_\_

\_\_\_\_\_



**OR**

On a sunny day, the heat from the Sun warms the air around us. This warmth helps water change into water vapour through a process that occurs slowly but becomes faster in the presence of sunlight. Take two similar plates and pour the same amount of water into each. Keep one plate in sunlight and the other in the shade. After some time, you will observe that the water in the plate kept in sunlight disappears faster than the water in the plate kept in the shade. Based on the above passage, answer the following questions:

a) What is evaporation?

\_\_\_\_\_

b) Why does water kept in the shade also evaporate?

\_\_\_\_\_

c) Which will evaporate faster: water in a plate or water in a bottle cap? Give reason.

\_\_\_\_\_

**SECTION-D**

9. In a science class, the teacher displayed charts showing the life cycles of two organisms that live near ponds and stagnant water. The students learned that both start their life as eggs laid in water and their early stages develop in an aquatic environment. As the discussion continued, the teacher pointed out that although there are similarities, the sequence of stages and the way these organisms breathe during different stages are quite different.

a) Name the two organisms whose life cycles are being discussed.

\_\_\_\_\_

b) Write the four stages in the life cycle of each organism.

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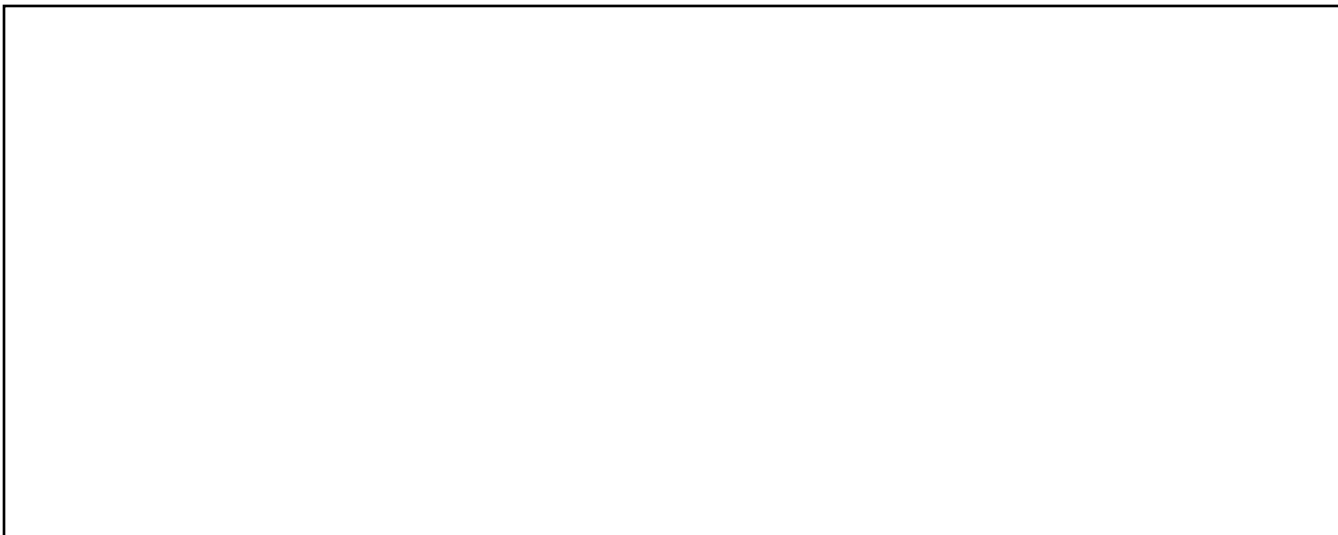
c) How does the mode of respiration differ in their larval stages?

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d) Draw and label the life cycle of any one of these organisms.



**SECTION-E**

10. During a school astronomy camp, Riya and her classmates visited an observatory on a hilltop. As night fell, the sky sparkled with countless stars. The guide pointed to a large scientific instrument mounted on a rotating stand and explained that scientists use it to explore the wonders of the universe. When Riya looked through it, she was amazed to see faint stars and distant planets that she could never see with her naked eyes. However, the guide also told them that the view is sometimes blurred because of Earth's atmosphere, and very faraway planets cannot be seen clearly due to their enormous distance from Earth.

a) Name the instrument Riya used to observe the sky.

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b) What is the main use of this instrument?

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c) Mention any two limitations of using this instrument.

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NAME: \_\_\_\_\_

CLASS: VI

SEC: \_\_\_\_\_

DATE: \_\_\_\_\_

**SECTION – A**

- Which step comes first in the scientific method?
  - Experiment
  - Hypothesis
  - Question
  - Observation**
- Match the following terms with their appropriate meanings (in terms of water) and choose the correct option.

1. Boiling	a) Change of state from solid (ice) to liquid (water)
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4. Melting	d) Change in state from liquid (water) to solid (ice)

- 1–b, 2–c, 3–d, 4–a**
- 1–d, 2–a, 3–c, 4–b
- 1–b, 2–a, 3–d, 4–c
- 1–c, 2–b, 3–d, 4–a

For the following question two statements are given – one labelled Assertion (A) and the other labelled Reason (R). Select the correct answer to the question from the options (i), (ii), (iii) and (iv) as given below:

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- Both A and R are true but R is not the correct explanation of A.
- A is true but R is false.
- A is false but R is true.

3. Assertion (A): Earth is called a red planet.

Reason (R): Most of the earth is covered with water and appears blue from space.

**Ans: A is false but R is true.**

4. A cluster of frogs egg that appears jelly like is known as Spawn.

## SECTION-B

5. Why is the study of science considered as an adventurous journey?

**Ans: Science is compared to a big adventure because it involves exploring the unknown, discovering new things, and solving mysteries. Just like an adventure, it is full of excitement, challenges, and unexpected discoveries.**

6. Differentiate between a planet and a star.

Planet	Star
<b>The celestial bodies which revolve around the sun in certain orbit are called planets.</b>	<b>Stars are the celestial bodies which can emit heat and light continuously.</b>
<b>Planets do not twinkle in the sky.</b>	<b>Stars twinkle in the sky.</b>
<b>They do not have their own light.</b>	<b>They have their own light.</b>
<b>They revolve around the sun.</b>	<b>They are fixed at a point.</b>
<b>Planets are small as compared to stars</b>	<b>They are very big in size.</b>

## SECTION C

7. Explain how science is a part of our everyday life by giving any four suitable examples.

**Ans: The concept of “Science is everywhere” means that scientific principles and processes are at work in almost every aspect of our daily lives, even if we do not always notice them. Here are some examples: (a) Cooking: Boiling water, baking bread, or frying an egg**

**(b) Breathing: Oxygen is taken into your lungs, where it is absorbed by your blood and used by cells to produce energy is a biological process.**

**(c) Using a Smartphone: The technology in your smartphone like touch screens relies on physics, chemistry, and computer science.**

**(d) Weather: Rain, wind, and clouds occur due to scientific processes such as evaporation and condensation.**

**(e) Transportation: Driving a car, riding a bicycle, or even walking involves science.**

**(f) Plant Growth: The growth of plants involves photosynthesis, where plants convert sunlight into energy.**

8. Observe the given figure and answer the questions below:

a) Identify and name the given figure.

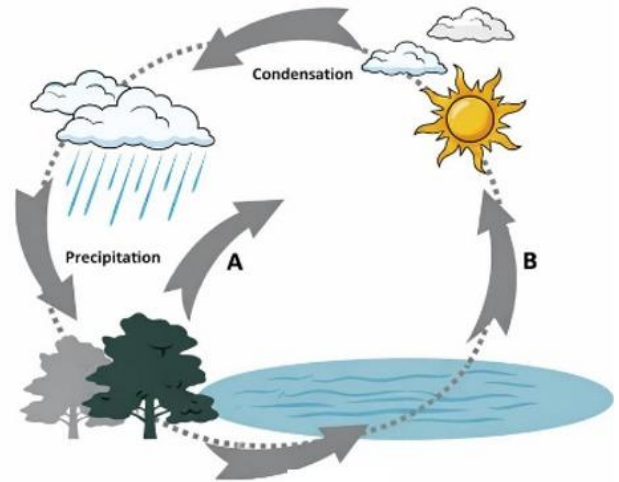
**Ans: Water cycle**

b) Name the processes shown in A and B.

**Ans: A -Transpiration**

**B - Evaporation**

c) What is transpiration?



**Ans: The loss of water from plants in the form of water vapour**

**OR**

On a sunny day, the heat from the Sun warms the air around us. This warmth helps water change into water vapour through a process that occurs slowly but becomes faster in the presence of sunlight. Take two similar plates and pour the same amount of water into each. Keep one plate in sunlight and the other in the shade. After some time, you will observe that the water in the plate kept in sunlight disappears faster than the water in the plate kept in the shade. Based on the above passage, answer the following questions:

a) What is evaporation?

**Ans: Evaporation is the process by which water changes into water vapour on heating.**

b) Why does water kept in the shade also evaporate?

**Ans: Water kept in the shade also evaporates because the surrounding air gets warm due to the Sun's heat, and this warm air provides the heat needed for evaporation.**

c) Which will evaporate faster: water in a plate or water in a bottle cap? Give reason.

**Ans: Water in a plate will evaporate faster than water in a bottle cap because the plate has a larger surface area exposed to air, which increases the rate of evaporation.**

**SECTION-D**

9. In a science class, the teacher displayed charts showing the life cycles of two organisms that live near ponds and stagnant water. The students learned that both start their life as eggs laid in water and their early stages develop in an aquatic environment. As the discussion continued, the teacher pointed out that although there are similarities, the sequence of stages and the way these organisms breathe during different stages are quite different.

a) Name the two organisms whose life cycles are being discussed.

**Ans: The two organisms are: Mosquito and Frog.**

b) Write the four stages in the life cycle of each organism.

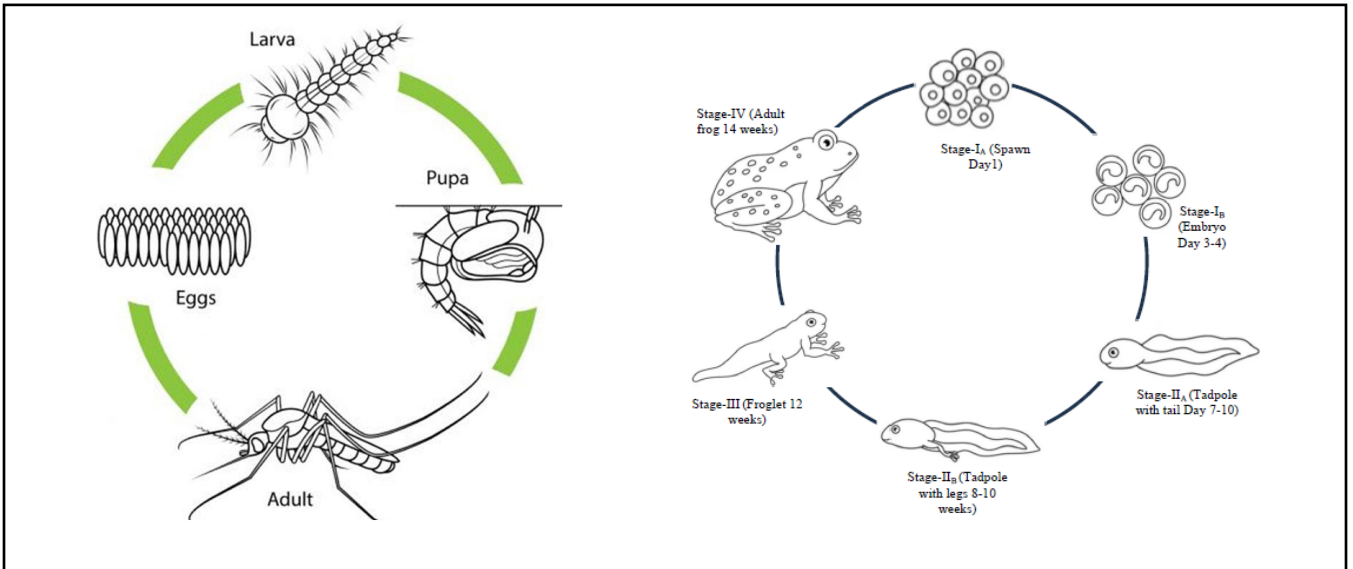
**Ans: Four stages in their life cycles: \* Mosquito: Egg → Larva → Pupa → Adult**

**\* Frog: Egg → Tadpole → Froglet → Adult**

c) How does the mode of respiration differ in their larval stages?

**Ans: Difference in mode of respiration: \* Mosquito larvae and pupae breathe through siphons (air tubes). \* Frog tadpoles breathe through gills, while adult frogs breathe through lungs and skin.**

d) Draw and label the life cycle of any one of these organisms.



### SECTION-E

10. During a school astronomy camp, Riya and her classmates visited an observatory on a hilltop. As night fell, the sky sparkled with countless stars. The guide pointed to a large scientific instrument mounted on a rotating stand and explained that scientists use it to explore the wonders of the universe. When Riya looked through it, she was amazed to see faint stars and distant planets that she could never see with her naked eyes. However, the guide also told them that the view is sometimes blurred because of Earth's atmosphere, and very faraway planets cannot be seen clearly due to their enormous distance from Earth.

a) Name the instrument Riya used to observe the sky.

**Ans: The instrument Riya used is a telescope.**

b) What is the main use of this instrument?

**Ans: A telescope helps us to view many dim objects which are not visible to our naked eyes.**

c) Mention any two limitations of using this instrument.

**Ans: The limitations of telescope include interference from the earth's atmosphere which can blur images, and the very large distances of planets and stars which make detailed observation difficult.**

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