



INDIAN SCHOOL AL WADI AL KABIR



CLASS: VII	DEPARTMENT: SCIENCE 2025-2026	DATE: 08-01-2026
WORKSHEET NO: 11	CHAPTER: LIFE PROCESSES IN ANIMALS	NOTE: A4 FILE FORMAT
NAME OF THE STUDENT	CLASS & SEC:	ROLL NO.

I. OBJECTIVE-TYPE QUESTIONS:

1. Which sequence correctly represents the movement of oxygen in humans?
 - (a) Nose → Trachea → Bronchi → Alveoli → Blood
 - (b) Nose → Lungs → Bronchi → Trachea → Alveoli
 - (c) Nose → Trachea → Alveoli → Bronchi → Blood
 - (d) Nose → Bronchi → Trachea → Alveoli → Blood
2. A student observes that limewater turns milky faster when exhaled air is passed through it than when inhaled air is passed. This indicates that:
 - (a) Inhaled air contains more oxygen.
 - (b) Exhaled air contains more carbon dioxide.
 - (c) Inhaled air contains nitrogen.
 - (d) Exhaled air contains less water vapour.
3. Why are alveoli considered efficient structures for gas exchange?
 - (a) They have thick walls and a small surface area.
 - (b) They contain mucus to trap dust.
 - (c) They have thin walls and are surrounded by blood capillaries.
 - (d) They prevent carbon dioxide from entering the blood.
4. Which of the pairs has animals that can breathe through their skin, and one of them also uses lungs?
 - (a) Fish and frog
 - (b) Frog and earthworm
 - (c) Frog and human
 - (d) Bird and frog
5. A bird swallows small stones along with food. What would happen if these stones were absent?
 - (a) Food digestion would stop completely.
 - (b) Food would not be ground properly in the gizzard.

- (c) Food would not enter the stomach.
- (d) Respiration would be affected.

6. If the diaphragm did not move downward during inhalation, what would be the immediate effect?

- (a) Air would rush into the lungs.
- (b) The chest cavity volume would increase.
- (c) Lungs would not expand properly.
- (d) Carbon dioxide would be absorbed.

7. When a child remains underwater without breathing, what mainly forces them to come up and breathe again?

- (a) Fall in body temperature
- (b) Tired muscles
- (c) Rise in heart rate
- (d) Accumulation of carbon dioxide

For the following questions, two statements are given- one labelled Assertion (A) and the other labelled Reason (R). Select the correct answer to these questions from the codes (i), (ii), (iii), and (iv) as given below

- (i) Both A and R are true, and R is the correct explanation of the assertion.*
- (ii) Both A and R are true, but R is not the correct explanation of the assertion.*
- (iii) A is true, but R is false.*
- (iv) A is false, but R is true*

8. **Assertion (A):** Animals need oxygen continuously to stay alive.

Reason (R): Oxygen is required for the breakdown of food to release energy.

9. **Assertion (A):** Inhaled air contains more carbon dioxide than exhaled air.

Reason (R): Carbon dioxide is produced during respiration in cells.

10. **Assertion (A):** The diaphragm plays an important role in breathing.

Reason (R): It helps in increasing and decreasing the volume of the chest cavity.

II. VERY SHORT ANSWER TYPE QUESTIONS: (2M)

1. A person who eats very fast often complains of indigestion. Explain how slow chewing can prevent this problem.

[Hint: Slow chewing mixes food well with saliva, starts the digestion of starch in the mouth, and makes swallowing easier, thus reducing indigestion.]

2. Name the breathing organs:

- a) Fish – [Gills.]
- b) Frogs – [Lungs and moist skin.]

3. Define digestion.

[Hint: Digestion is the process of breaking down complex food into simpler substances that can be absorbed by the body.]

4. What is breathing?

[Hint: Breathing is the physical process of inhaling oxygen-rich air and exhaling carbon dioxide-rich air.]

5. The stomach produces acid, which is strong enough to digest food. Why does this acid not damage the stomach wall?

[Hint: The stomach wall secretes mucus, which forms a protective layer and prevents the acid from damaging the stomach lining.]

6. During vigorous exercise, a student's breathing rate increases rapidly. Why does breathing rate increase?

[Hint: The breathing rate increases as the muscles need more energy and thus more oxygen is needed to release the energy.]

III. SHORT ANSWER TYPE QUESTIONS: (3M)

1. Explain the role of saliva in digestion.

[Hint: Saliva moistens food and makes it easy to swallow.

It helps in the process of digestion in the mouth as it contains digestive juice that breaks down starch into sugar.]

2. Differentiate between breathing and respiration.

Hint:

Breathing	Respiration
Physical process	Chemical process
Takes place in lungs	Takes place in cells
Involves inhaling and exhaling	Releases energy

3. How does the small intestine help in digestion and absorption?

[Hint:

- Receives bile and pancreatic juice along with the secretion of intestinal juice from its walls.
- Completes digestion of carbohydrates, proteins, and fats.
- Helps in absorption of digested food through villi into the blood.]

4. How do different animals breathe? Explain with examples.

[Hint:

- Humans, birds, and mammals breathe through lungs.
- Fish use gills to absorb oxygen dissolved in water.
- Frogs breathe through gills as tadpoles, lungs on land, and skin in water.

- Earthworms breathe through moist skin.]

5. Explain respiration with the help of a word equation.

[Hint: Respiration is the process by which glucose is broken down in the presence of oxygen to release energy.]

Word equation:

Glucose + Oxygen → Carbon dioxide + Water + Energy

This energy is used for movement, growth, and repair.]

6. A frog lives both on land and in water.

Explain how its breathing mechanism helps it survive in both habitats.

[Hint: A frog lives both on land and water, thus it has a dual mode of breathing. A frog breathes through its lungs when it is on land and through moist skin when it is in water. This helps in allowing gas exchange in both environments.]

IV. LONG ANSWER TYPE QUESTIONS: (5M)

1. Describe the process of digestion in humans.

[Hint: Digestion begins in the mouth, where the food is chewed, and saliva breaks starch into simple sugars. Then the food passes through a long pipe called the oesophagus, which connects to the stomach, where proteins are digested with the help of digestive juice and hydrochloric acid. The partially digested food then enters the small intestine, where bile juice, pancreatic juice and intestinal juice break down the carbohydrates to simple sugars, proteins to amino acids and fats to fatty acids and glycerol.]

V. SOURCE-BASED/ CASE STUDY-BASED QUESTIONS

Read the following passage and answer the questions.

Riya was observing a rabbit in her garden. She noticed that the rabbit's chest moved up and down continuously, even when it was resting. She learned that animals require energy to perform various activities, including movement, growth, and repair. This energy is obtained from food through a process that involves oxygen. The oxygen taken in reacts with food in the cells, releasing energy and producing carbon dioxide and water as waste products.

Breathing and respiration are often confused, but they are different processes. Breathing is the physical process of inhaling oxygen and exhaling carbon dioxide, while respiration is a chemical process that occurs inside cells. During respiration, oxygen reacts with food to release energy. Even when animals are not actively breathing, cellular respiration continues to occur.

i) What is produced when oxygen reacts with food in the cells?

[Hint: When oxygen reacts with food in the cells, energy is released along with carbon dioxide and water as waste products.]

ii) Why does respiration continue even when breathing slows down during sleep?

[Hint: Respiration continues even when breathing slows down during sleep because the body requires a supply of energy at all times.]

ANSWERS FOR OBJECTIVE TYPE QUESTIONS [1 to 10]:

1. (a) Nose → Trachea → Bronchi → Alveoli → Blood
2. (b) Exhaled air contains more carbon dioxide.
3. (c) They have thin walls and are surrounded by blood capillaries.
4. (b) Frog and earthworm
5. (b) Food would not be ground properly in the gizzard.
6. (c) Lungs would not expand properly.
7. (d) Accumulation of carbon dioxide
8. (i) *Both A and R are true, and R is the correct explanation of the assertion.*
9. (iv) *A is false, but R is true.*
10. (i) *Both A and R are true, and R is the correct explanation of the assertion.*

<i>Prepared by: Ms Alysia Fernandes</i>

<i>Checked by: HOD Science</i>
