



## INDIAN SCHOOL AL WADI AL KABIR

<b>Class: VI</b>	<b>Department: SCIENCE 2020-2021</b>	<b>Date: 18.10.2020</b>
<b>Worksheet No.: 9 With answers</b>	<b>Topic: Living Organisms and their Surroundings</b>	<b>Note: A4 FILE FORMAT</b>
<b>NAME OF THE STUDENT:</b>	<b>CLASS &amp; SEC:</b>	<b>ROLL NO.:</b>

### I. OBJECTIVE TYPE QUESTIONS

- Following are some features of plants.
  - They lose a lot of water through transpiration.
  - Their leaves are always broad and flat.
  - They lose very little water through transpiration.
  - Their roots grow very deep into the soil.Which of the combination of above features are typical of desert plants?  
a) (i) and (ii)      b) (ii) and (iv)      c) (ii) and (iii)      **d) (iii) and (iv)**
- Boojho comes across an animal having a stream-lined and slippery body. What is the habitat of the animal?  
**a) Water**      b) Desert      c) Grassland      d) Mountain
- Which of the following is not an example of response to stimulus?
  - Watering in mouth when we see delicious food items.
  - Closing of leaves of Mimosa plant when touched.
  - Shutting our eyes when an object is suddenly thrown in our direction.
  - A chick hatching out of an egg.**
- Choose the set that represents only the biotic components of a habitat.
  - Tiger, Deer, Grass, Soil
  - Rocks, Soil, Plants, Air
  - Sand, Turtle, Crab, Rocks
  - Aquatic plant, Fish, Frog, Insect**
- Which of the following is not found in the mountain region?
  - Lion**
  - Mountain goat
  - Yak
  - Snow leopard
- What feature of whales and dolphins helps them use the oxygen dissolved in water?
  - Gills
  - Blowholes**
  - Skin
  - All of the above
- Which of the following is not a characteristic of living organisms?
  - They need food for nutrition
  - They reproduce their own kind
  - They do not respond to stimuli**
  - They respire

*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 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): living things produce more of their own kind through reproduction.

Reason (R): it takes place in same way in all the living organisms.

**iii). A is true but R is false**

9. Assertion (A): the process of getting rid waste materials by living organisms is known as excretion.

Reason (R): Some plants remove waste products as secretions.

**ii) Both A and R are true but R is not the correct explanation of the assertion.**

10. Assertion (A): animals which are hunted for food are called prey and those that feed on the prey are called predators.

Reason (R): an example of a predator -prey relation is the lion and deer.

**i) Both A and R are true but R is the correct explanation of the assertion.**

## **II. BASIC CONCEPT LEVEL QUESTIONS**

1. What do you mean by Adaptation? **[Hint: The special characteristics that enable plants and animals to be successful in a particular environment are called adaptations.]**
2. Why is reproduction important for organisms? **[Hint: Reproduction is very important for living organisms as it helps them to produce young ones of their own kind and maintains the continuity of life.]**
3. Why do desert snakes burrow deep into the sand during the day? **[Hint: As the deeper layers of sand are cooler, so desert snakes burrow deep into the sand to stay away from heat of the desert during day time.]**
4. What is a habitat? What are the two types of habitats? **[Hint: The natural living place of an organism is its habitat. An organism depends on its habitat for food, water, air, shelter, etc. The two types of habitat are terrestrial and aquatic habitat.]**
5. Differentiate between Biotic and Abiotic components. **[Hint: **Abiotic**: It refers to the non-living **components** of an ecosystem, e.g. air, soil, water, sunlight. **Biotic**: It refers to living **components** of an ecosystem, e.g. plants, animals etc.]**
6. Write the characteristics of living organisms. **[Hint: Respiration, movement, response to stimulus, nutrition, growth, excretion, reproduction, life span]**

7. Name two aquatic animals that do not have a streamlined shape and two aquatic animals that have a streamlined shape. [Hint: Not streamlined – Squid, Octopus; Streamlined – Dolphins, Whales]

### **III. INTERMEDIATE LEVEL QUESTIONS**

1. What are stimuli? Give two examples how living organisms respond to stimuli.  
[Hint: Changes in our surroundings that make us respond to them are called Stimuli. Wild animals run away when bright light is flashed towards them. Plants like touch-me-not close their leaves when someone touches them.]
2. How do aquatic animals use the oxygen dissolved in water?  
[Hint: Most aquatic animals have gills that help them use oxygen dissolved in water. Whales and dolphins have blowholes located on the upper part of their head which allows them to breathe when they come near the water surface. They can stay in water without breathing for a long time.]
3. What are the specific features present in a deer that helps it to detect the presence of predators like lion?  
[Hint: Specific features present in deer that help them to detect the presence of predators like lion are:  
(i) Long ears to hear and recognise movement of predators.  
(ii) Eyes on the sides of its head which allow it to look in all directions.]
4. Do plants excrete? What are the different mechanisms?  
[Hint: Yes. Some plants store waste products within their parts in a way that is not harmful to them. Other plants remove wastes as secretions.]
5. How do squids and octopus move in water?  
[Hint: Squids and octopus do not have a streamlined body. However when they move they make their body shapes streamlined.]
6. What are the adaptive features of desert plants like cactus?  
[Hint: Leaves in desert plants are either absent, small or present in the shape of spines. Their stem is covered by a thick waxy substance. This helps in reducing water loss through transpiration. Photosynthesis in cacti takes place through stem. Their roots grow deep in soil to absorb water.]
7. a) What is respiration? Why is it important?  
[Hint: Respiration is the process of breakdown of food in the presence of oxygen into carbon dioxide and water to release energy. Breathing is the process of taking in oxygen-rich air and giving out carbon dioxide-rich air. We breathe in oxygen which is used by our body and

breathe out carbon dioxide. It is through respiration that our body obtains energy from the food we intake.]

b) How do plants respire?

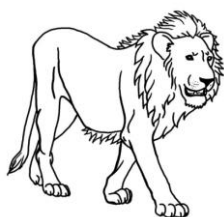
[Hint: Respiration takes place through leaves with the help of tiny pores called Stomata.]

8. Why do living organisms need food?

[Hint: Food gives organisms energy needed to grow and help perform other life processes like digestion, respiration, etc.]

#### IV. ADVANCED LEVEL QUESTIONS

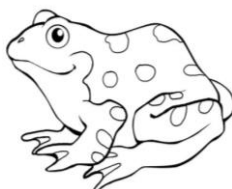
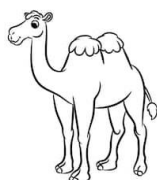
1. Identify and define predator and prey. Explain how they are adapted to their habitat.



[Hint: Predator – lion, Prey- deer. The powerful hind legs of lion help it run fast and catch its prey. The good eyesight of lion help it hunt at night.

Deer have sharp ears and great sense of smell which help them in identifying the predator. Eyes at the sides to see in all directions.]

2. Identify the habitat for the following animals and write about their adaptive features.



[Hint: Camel (desert)- It has long legs which provide protection from heat of sand, excrete small quantity of urine, they do not sweat and their dung is dry, can live without water for many days as their bodies lose little water.

Frog (pond) - Frogs are adapted to live both on land and water, they have webbed feet which allows them to swim in water, they have strong back legs that help in leaping and catching their prey.

Mountain goat (mountain region) – Thick hooves which allow them to move about in mountain region.]

3. Give reasons:

a) Mountain trees are cone-shaped and have sloping branches.

[Hint: It helps the rainwater and snow to slide off easily.]

b) In aquatic plants, the leaves are highly divided.

[Hint: It allows water to flow easily without damaging the leaves.]

c) Snow leopards have thick fur, feet and toes.

[Hint: This protects its body and feet from cold when it walks on snow.]

d) Aquatic animals have streamlined bodies.

[Hint: It helps them move easily in water.]

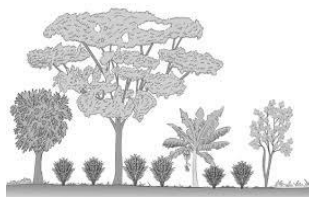
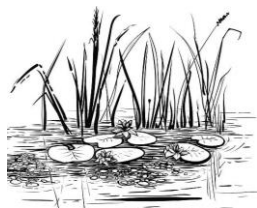
e) Speed is very important for survival in grasslands for animals that live there like deer.

[Hint: It helps them run away from predators like lions.]

4. a) From the picture below identify the type of habitat the plants are present in.

[Hint: (i) Aquatic, (ii) Terrestrial.]

b) Explain how they are different based on their adaptation.



[Hint: Aquatic- Free floating plants, roots are much reduced in size, main function is to hold the plant in place, stem of these plants are long, hollow and light, leaves and flowers float on the surface of water.

Terrestrial – Roots normally play important role in absorption of nutrients and water from the soil, leaves are exposed to sunlight.]

## V. EXEMPLAR QUESTIONS

1. Like many living organisms, a car also moves. Yet it cannot be considered to be a living organism. Give two reasons.

[Hint: Living Organisms have the ability to move on their own, whereas a car moves by burning fuels like petrol and diesel. Cars do not show other characteristics of living organisms such as respiration, growth, excretion, reproduction, etc.]

2. Which of the following cannot be called a habitat? Why?

- Desert with camels
- Pond with fishes
- Jungle with wild animals
- Cultivated land with grazing cattle

[Hint: (d). Reason: Habitat is the place where animals live. It is their home. Grazing cattle come to the cultivated land only for feeding and do not live there.]