## Class 6...Science Chapter - 7 Things Around Us...

**A. Give two examples for the following.**

| | | | | | |
|---|---|---|---|---|---|
| 1. | Life processes in living things – | a) | Respiration | b) | Reproduction |
| 2. | Wastes given out by plants – | a) | Oxygen | b) | Water vapour |
| 3. | Omnivores – | a) | Crow | b) | Bear |
| 4. | Biotic components – | a) | Plants | b) | Animals |
| 5. | Secondary consumers – | a) | Snake | b) | Lion |

**B. Give one word for the following.**

1. The smallest living structure that is able to function independently – Cell
2. The process by which living things use oxygen to release energy from food – Respiration
3. Components of the environment that are non-living – Abiotic
4. A cycle of growth and development of an organism – Life cycle
5. Animals that feed on dead plants and animals – Scavengers

**III. Short answer type questions**

Q.1 State any four characteristics of living things.

Ans: a) Living things grow and develop. b) They reproduce to produce their own kind.
c) They respond to changes in their surroundings. d) They need food and use energy to live.

Q.2 Define respiration. Why is it important?

Ans: Respiration is the process by which living organisms use oxygen to break down food and release energy. It is important because energy is needed to carry out all life processes.

Q.3 What are autotrophs? How are they different from heterotrophs?

Ans: Autotrophs are organisms that prepare their own food (e.g., plants). Heterotrophs depend on other organisms for food (e.g., animals, humans).

Q.4 Define decomposers.

Ans: Decomposers are organisms like bacteria and fungi that break down dead plants and animals into simpler substances.

Q.5 What is a biotic community?

Ans: A biotic community is a group of living organisms (plants, animals, microorganisms) that live and interact in a particular environment.

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**IV. Long answer type questions**

Q.1 Describe the structural organization in living things.

Ans: All living things are made up of small units called cells. These cells are organized in a systematic way to form the complete body of an organism. The levels of structural organization are:

a) Cell – The basic structural and functional unit of life. Example: muscle cell, nerve cell.
b) Tissue – A group of similar cells that work together to perform a particular function. Example: muscle tissue, xylem tissue.
c) Organ – Different tissues combine to form an organ, which performs a specific function. Example: heart, lungs, leaf.
d) Organ system – A group of organs working together to carry out major functions of the body. Example: digestive system, respiratory system.
e) Organism – The entire living being, made up of many organ systems working together. Example: human, plant, dog.

Thus, the structural organization in living things follows the order:
Cell → Tissue → Organ → Organ system → Organism.

Q.2 With the help of an example explain stimulus and response in plants.

Ans: Plants, like animals, can also react to changes in their surroundings. Any change in the environment that causes a reaction in a living thing is called a stimulus, and the reaction shown by the plant is called a response.

a) For example, when we touch the leaves of a touch-me-not plant (Mimosa pudica), the leaves fold up immediately.
b) Here, the stimulus is the touch. The response is the folding of the leaves.
Another example is sunflower turning towards the sun.
c) Here, the stimulus is sunlight.
d) The response is the turning of the flower.

Thus, stimulus is the cause, and response is the effect shown by the plant.

Q.3 Differentiate between living things and non-living things.

Ans: Living things and non-living things can be differentiated on the basis of their characteristics:
Examples: Chair, stone, car, book. Bookshelves

**Living Things –**

a) They have life.
b) They grow, move, breathe, reproduce, and respond to stimuli.
c) They need food, air, and water to survive.
d) Examples: Human, cow, tree, fish.

**Non-living Things –**

a) They do not have life.
b) They do not grow, move, breathe, or reproduce.
c) They do not need food, air, or water.

Q.4 Describe the different abiotic components of the environment.

Ans: Abiotic components are the non-living parts of the environment. These include: Groceries

a) Air – provides oxygen, carbon dioxide, and other gases.
b) Water – essential for survival of all organisms.
c) Soil – provides minerals and a place for plants to grow.
d) Light and Temperature – affect growth, reproduction, and behavior of organisms.

Q.5 Explain how oxygen and carbon dioxide of the air are balanced in nature.

Ans: The balance of oxygen and carbon dioxide in the air is mainly maintained by the processes of respiration and photosynthesis.

**1. Respiration:**

* All living beings (humans, animals, and plants at night) take in oxygen from the air and release carbon dioxide.
* This increases the amount of carbon dioxide in the atmosphere.

**2. Photosynthesis**:

* Green plants use carbon dioxide from the air, water, and sunlight to prepare food.
* During this process, they release oxygen into the air.
* This increases the amount of oxygen in the atmosphere.

Thus, the oxygen taken in by animals during respiration is replaced by the oxygen released by plants during photosynthesis, and the carbon dioxide released by animals is used by plants. In this way, the proportion of oxygen and carbon dioxide in the atmosphere remains balanced in nature.