

**PARAGON CONVENT SCHOOL**

**SECTOR: 24B, CHANDIGARH**

**LESSON - 7**

**THE LIVING AND THE NON LIVING**

**Summary:**

- All living beings grow, have a definite life span, respond to stimuli, respire, reproduce, excrete and are made up of cells.
- All living beings respond to stimuli by moving towards or away from it.
- Living beings show a wide variation in their size, shape, food habits and in their place of living.
- Cells are the smallest structural and functional unit of life.
- A species is a group of similar living organisms that have similar body parts, live in the same habitat, eat the same kind of food and reproduce among themselves.

**Multiple Choice Questions (Page No. 80)**

1. (a)      2. (d)      3. (a)      4. (b)      5. (d)

**Multiple Choice Questions (Page No. 82)**

1. (a)      2. (d)      3. (c)      4. (b)      5. (c)

**SECTION A**

**Oral questions**

Q1.- How is the growth of crystal different from the growth of a baby bird?

Ans.- The growth of the crystal is external, i.e., due to addition of substances from outside. The growth of baby bird is internal, i.e., from inside due to multiplication and growth of cells.

Q2.- Why do living things respire?

Ans.- All the living things respire to get energy.

Q3.- How is a lion different from a peepal plant?

Ans.- (i) A peepal plant can make its food through photosynthesis whereas a lion does not make its own food and gets its food from other animals.

(ii) A peepal tree cannot move, whereas the lion can move.

(iii) A peepal tree continues to grow throughout its life while the lion grows only upto a certain age.

### **Science quiz**

Q1.- Name the structural and functional unit of living things.

Ans.- A cell

Q2.- Name a microscopic organism.

Ans.- Amoeba / Paramecium / bacteria

Q3.- Name the two waste products produced in each animals and plants.

Ans.- Wastes of plants - gums, resins and latex, carbon dioxide.

Wastes of animals - urea, carbon dioxide, uric acid, faeces, urine.

### **WORKSHEET**

#### **Tick ( ✓ ) the correct options**

1. (d)      2. (c)      3. (d)      4. (b)      5. (b)

#### **Circle the odd ones. Give reasons for your choice.**

1. Toy                  Kitten                  Watch                  Pencil

Ans.- Kitten - It is a living thing. Others are non-living things.



Q2.- Which of the following were once the part of living things?

Leather, wool, electric bulb, salt, mango, wooden table, metallic bucket.

Ans.- Leather, wool, mango and wooden table were once a part of living things.

Q3.- What is meant by respiration? Why is respiration essential for living organisms?

Ans.- Respiration is the process of breakdown of food in the body of an organism with the help of oxygen to release carbon dioxide, water and energy. Respiration is essential for all living things because it provides energy to living things to do work, move and stay alive.

Q4.- Manoj sees a dog in his garden. He picks up a stone and throws it at the dog. The dog gets hurt and within no time bites Manoj's leg. Manoj's friend, Arjun, takes him to the doctor. The doctor immediately gives him first aid and injections. Manoj promises his parents and friends that he will not repeat this in future.

a) Name the 'stimulus' and 'response' in this case.

b) What value do you learn from Arjun and Manoj?

Ans.- (a) Throwing stone on dog is a stimulus and biting of dog is a response.

(b) From Arjun, we learn to be helpful and kind to others and from the actions of Manoj we learn that we should not harm other animals or plants unnecessarily.

### **Long Answer Questions**

Q1.- Explain how different organisms carry out exchange of gases. Give one example of each.

Ans.- Different organisms carry out exchange of gases through different organs.

i) Animals like tigers, cats, dogs and human beings breathe through lungs.

ii) Insects like cockroaches, flies, mosquitoes and grasshoppers breathe through air holes (spiracles) present on the surface of their bodies.

iii) The fish has special organs of breathing called gills. The gills absorb oxygen dissolved in water.

iv) The earthworm breathes through its skin. The skin of an earthworm is quite thin and moist and has a good blood supply.

v) Like animals, exchange of gases also takes place in plants through tiny pores called stomata, present on the surface of the leaves.

Q2.- Animals grow only till a particular age whereas plants grow throughout their life. Justify.

Ans.- All the living things grow, they become taller and bigger on their own. Growth is actually an increase in size of the body. All the animals grow upto a certain age only. After attaining certain size and shape, they stop growing. Humans also grow for a few years and then they stop growing. For example, in humans we observe that there is no growth in arms and limbs after a certain age. But in case of plants, a tiny seed grows into a baby plant and after some time it grows into a big plant or tree. Unlike animals, plants continue to grow throughout their life. After attaining a certain height, the plants do not grow in height but only in width. New branches grow. They produce seeds, flowers and fruits. E.g., a peepal tree and a banyan tree lives for 200 years.

Q3.- a) A plant grows towards sunlight. Mention the stimulus and the response.

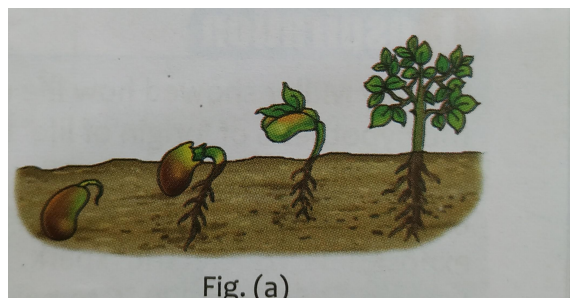
b) What is meant by 'stimulus' and 'sensitivity'?

Ans.- (a) Sunlight is stimulus and bending of plant towards sunlight is response.

(b) Stimulus is any change in the surroundings of an organism to which it responds. Some examples of stimuli are light, sound, smell and touch.

The ability to respond to any external change is called sensitivity.

Q4.- a) Which characteristic of living things is shown in the fig.(a) given below?



b) Distinguish between ‘tissues’ and ‘organs’.

Ans.- (a) The given picture shows the growth of a tiny seed into a big plant.

(b) A group of similar cells that perform a particular function is called a tissue.

A group of tissues that work together to perform a particular function in the body is called an organ. E.g., heart, lungs, etc.

Q5.- a) What is the common feature in living things and non-living things?

b) Give any four differences between living things and non-living things.

Ans.- (a) The common feature in living and non-living things is that they are made up of matter. i.e. they have mass and occupy space.

LIVING THING	NONLIVING THINGS
(i) Living things are made up of cells.	i) Non-living things are not made up of cells.
(ii) Living things can move.	ii) Non-living things cannot move on their own.
(iii) Living things have a definite lifespan.	iii) Non-living things do not have a definite lifespan.
(iv) Living things reproduce.	iv) Non-living things do not reproduce.
(v) Living things need food to live.	v) Non-living things do not need food.