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for Class **3**



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FOR  
CLASS 3



Containing :  
Multiple Choice Questions (MCQs)  
and Questions Based on Higher  
Order Thinking Skills (HOTS)

Lakhmir Singh  
Manjit Kaur

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It is the team-work of Lakhmir Singh and Manjit Kaur which has given some of the most popular books in the history of science education in India. Lakhmir Singh and Manjit Kaur both write exclusively for the most reputed, respected and largest publishing house of India : S. Chand and Company Pvt. Ltd.

## An Open Letter

Dear Friend,

We would like to talk to you for a few minutes, just to give you an idea of some of the special features of this book. Before we go further, let us tell you that this book conforms to the NCERT guidelines prescribed by the Central Board of Secondary Education (CBSE). Just like our earlier books, we have written this book in such a simple style that even the weak students will be able to understand science very easily. Believe us, while writing this book, we have considered ourselves to be the students of the concerned class and tried to make things as simple as possible.

The most important feature of this book is that we have included a large variety of different types of questions for assessing the learning abilities of the students. This book contains:

- (i) Objective type questions,
- (ii) Subjective type questions,
- (iii) Multiple Choice Questions (MCQs),
- (iv) Questions based on Higher Order Thinking Skills (HOTS), and
- (v) Activities.

Please note that answers have also been given for the various types of questions, wherever required. All these features will make this book even more useful to the students as well as the teachers. "A picture can say a thousand words". Keeping this in mind, a large number of coloured pictures and sketches of various scientific processes, procedures, appliances, manufacturing plants and everyday situations involving principles of science have been given in this book. This will help the students to understand the various concepts of science clearly. It will also tell them how science is applied in the real situations in homes, transport and industry.

We are sure you will agree with us that the facts and formulae of science are just the same in all the books, the difference lies in the method of presenting these

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facts to the students. In this book, the various topics of science have been explained in such a simple way that while reading this book, a student will feel as if a teacher is sitting by his side and explaining the various things to him. We are sure that after reading this book, the students will develop a special interest in science and they would like to study science in higher classes as well.

We think that the real judges of a book are the teachers concerned and the students for whom it is meant. So, we request our teacher friends as well as the students to point out our mistakes, if any, and send their comments and suggestions for the further improvement of this book.

Wishing you a great success,

Yours sincerely,

*Lakhmir Singh*  
*Manjit Kaur*

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## CHAPTER

# 1



# LIVING AND NON-LIVING

### Learning Objectives:

- Living and non-living things
- Natural and man-made things
- Features of living things

We see different things around us. All these things can be grouped as living or non-living things.

## LIVING AND NON-LIVING THINGS

Animals and plants have life. We call them **living things**. Things such as pencils, stones, bags and bottles do not have life. They are called **non-living things**.



Living things



Non-living things

## NATURAL AND MAN-MADE THINGS

Non-living things can be man-made or natural.

Roads, houses, computers and furniture are things made by humans. We call them **man-made things**.

The Sun, Moon, stars, air, water and soil are found in nature. They are not made by humans. We call them **natural things**.



Man-made things



Natural things

## FEATURES OF LIVING THINGS

### 1. Living Things Move

Humans walk, run, jog and skip.

Animals move from place to place in search of food, water, shelter and other things they need. Cows, tigers, lions, dogs and cats walk and run. Birds fly while fish swim. Snails and earthworms crawl. Frogs hop.

Plants move differently. The leaves of the mimosa plant close when touched. A sunflower turns to face towards the Sun. Climbers such as money plants move upwards with the support of a stick as they grow.



Living things move

## 2. Living Things Breathe

Living things need to breathe air to stay alive. Air contains the gas oxygen, which the body needs to burn food and release energy. Humans and animals such as cows, cats, sheep, goats and tigers breathe through nose. Fish breathe through gills. Insects breathe through holes and the earthworms breathe through their skin.



Living things breathe

A plant breathes through tiny holes in its leaves called **pores** or **stomata**.

## 3. Living Things Grow

A baby grows to become a child and then becomes an adult. A chick hatches out of an egg and grows to become a hen. A calf grows into a cow and a cub grows into a lion. Tadpoles grow to become frogs.

A seed grows into a seedling or baby plant that further grows into a plant.



Living things grow

## 4. Living Things Need Food and Water

Food gives us energy. Water is necessary to stay alive.

Green plants prepare their own food through the process called **photosynthesis**. They need water, air and sunlight to prepare food.

Animals get their food from plants or other animals.



Living things need food

## 5. Living Things Reproduce

Reproduce means to give birth to young ones.

Birds, fish and snakes lay eggs. Little ones hatch out of the eggs.

Humans and animals such as dogs, cats, cows, horses, elephant and giraffe give birth to babies.

Baby plants grow from the seeds of an adult plant.



Living things reproduce

## 6. Living Things Feel

Humans and animals can feel changes around them with the help of **sense organs**.

Eyes, ears, nose, tongue and skin are the sense organs. Skin helps us to feel hot and cold. When we touch something hot we immediately move away our hand. When we feel cold we cover ourselves in woollen clothes. Our eyes help us to see a speeding car and we move away from it.

Caterpillars sense using long hair that grows through holes all over their body. A butterfly uses its antennae to smell and find food.

Plants too can feel changes around them. They can feel light and grow towards it.



Sunflower turns towards light



A mimosa leaf closes when touched



Feeling cold

Non-living things do not move, breathe and grow. They do not need food and water, nor do they reproduce and feel.

### Know more

The leaves on some trees respond to the change of season. The leaves of the tree shown in the picture are turning brown during autumn.



### ACTIVITY

**Objective:** To show that plants move and grow towards light

**Materials needed:** Shoebox, cardboard paper, scissors, tape and small potted plant

**Steps:**

- Cut a large hole at one end of the shoebox. Hold the box up to the light and be sure to tape up any other spaces where light shines through.
- Cut two pieces of cardboard. Both the pieces should be half the width of the shoebox and the same height as of the shoebox.
- Divide the box in thirds. Tape one cardboard piece on the left side of the box at the one-third mark. Tape the other cardboard piece on the right side of the box at the two-thirds mark. Place the small potted plant in the shoebox opposite the hole; make sure that it is well watered.
- Close the box, tape it, and place it close to a sunny window.

**Observation:** In about 4 or 5 days open the box and notice how the plant grows in the direction of the light coming from the hole.



### SUMMARY

- Living things are alive. They move, breathe, grow, need food and water, reproduce and feel.
- Non-living things are not alive. They do not move, breathe, grow, need food and water, nor do they reproduce and feel.
- Roads, houses, computers and furniture are things made by humans. We call them man-made things.
- The Sun, Moon, stars, air, water and soil are found in nature. We call them natural things.

## GLOSSARY

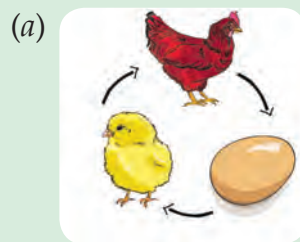
- **Living things:** things that are alive; they move, breathe, grow, need food and water, reproduce and feel
- **Man-made things:** things made by man
- **Natural things:** things that occur in nature and are not man-made
- **Non-living things:** things that are not alive; they do not move, breathe, grow, need food and water, nor do they reproduce or feel
- **Reproduce:** give birth to young ones

### Objective Type Questions

#### 1. Name the following:

- (a) Two living things: ....., .....
- (b) Two non-living things: ....., .....
- (c) Two man-made things: ....., .....
- (d) Two natural things: ....., .....

#### 2. Which feature of living things does each picture depict?



#### 3. Match the following.

Column A	Column B
(a) birds, fish	(i) photosynthesis
(b) food	(ii) breathes through skin
(c) green plants	(iii) lay eggs
(d) earthworm	(iv) energy

**4. Fill in the blanks.**

- (a) Climbers such as money plants ..... upwards with the support of a stick as they grow.
- (b) Living things need to ..... air to stay alive.
- (c) Living things need ..... and .....
- (d) ..... means to give birth to young ones.
- (e) Plants can feel ..... and grow towards it.

**Subjective Type Questions****5. Answer the following.**

- (a) What are living things? Give examples.
- (b) What are non-living things? Give examples.
- (c) How are natural things different from man-made things?
- (d) What are some features of living things? Make a list.

**Multiple Choice Questions (MCQs)****6. Tick (✓) the correct options.**

- (a) All of these are living things except  
 (i) frog                      (ii) tortoise                      (iii) snake                      (iv) window
- (b) All of these are non-living things except  
 (i) balloon                      (ii) ant                      (iii) thread                      (iv) honey
- (c) Which of these is not man-made?  
 (i) table                      (ii) pencil                      (iii) clouds                      (iv) hut
- (d) Which of the following does a butterfly use to smell and find food?  
 (i) hair                      (ii) nose                      (iii) antenna                      (iv) wings

**Questions Based on Higher Order Thinking Skills (HOTS)**

7. Can you name some non-living things that were once living?
8. Cars move, so are they living things?
9. Are vegetables and fruits living things or non-living things? Say why.

**ANSWERS**

1. (a) Animal; Plant (b) Bag; Stone (c) House; Furniture (d) Water; Soil 2. (a) Grow (b) Reproduce (c) Need food (d) Move 3. (a)(iii); (b)(iv); (c)(i); (d)(ii) 4. (a) move (b) breathe (c) food; water (d) reproduce (e) light 6. (a)(iv); (b)(ii); (c)(iii); (d)(iii)

## CHAPTER

# 2



# PARTS OF A PLANT

### Learning Objectives:

- Root and shoot systems
- Leaves, flowers, fruits, seeds
- Types of plants
- Seed to new plant

**P**lants have different parts. Each part has some important functions.

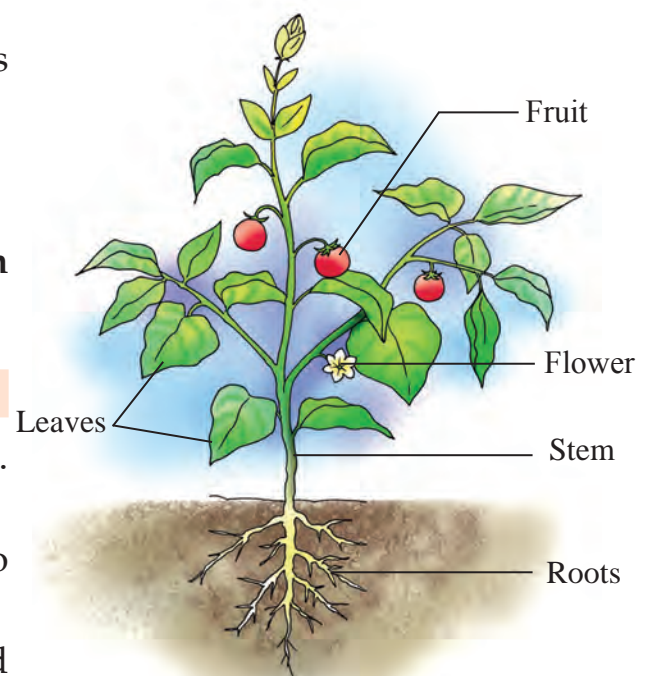
### ROOT AND SHOOT

A plant has two main parts – the **root system** and the **shoot system**.

### Root

**Roots** generally grow below the ground. Important functions of roots are:

- they keep the plant anchored or fixed to the soil
- they help the plant to absorb water and nutrients present in the soil; a plant needs these to grow and make its own food



Different parts of a plant



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