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Living and Non-living

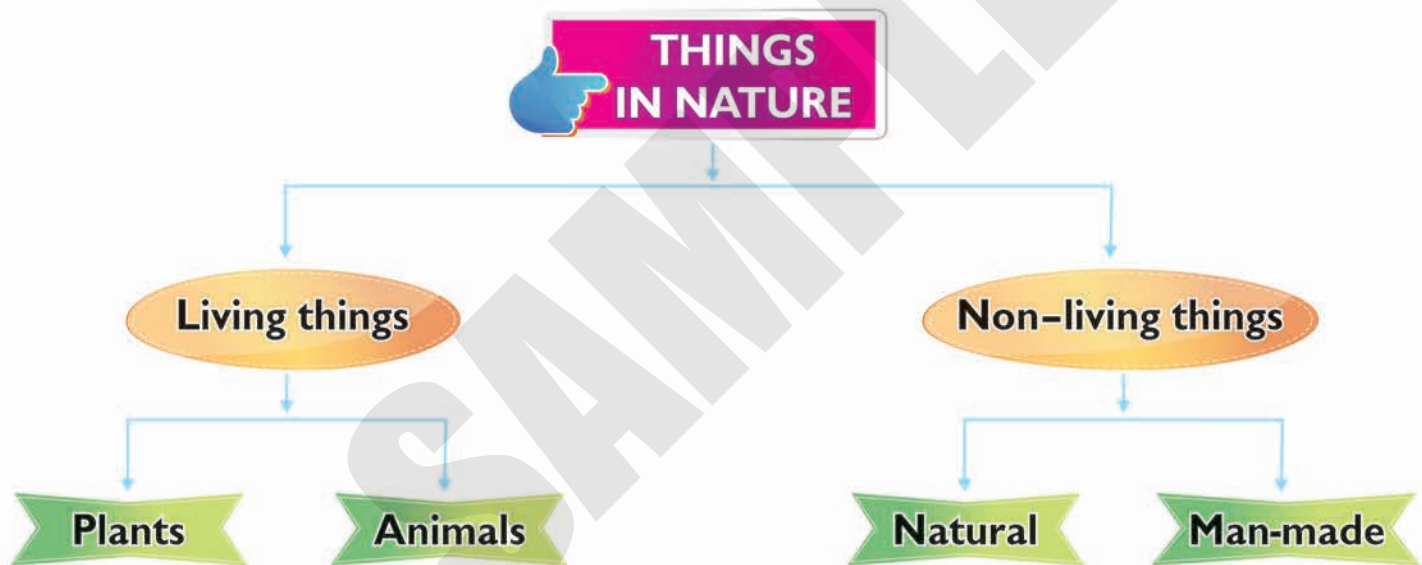
Learning Objectives

1. Classification of things
2. Living things
3. Non-living things
4. Difference between living things and non-living things
5. Natural and man-made things

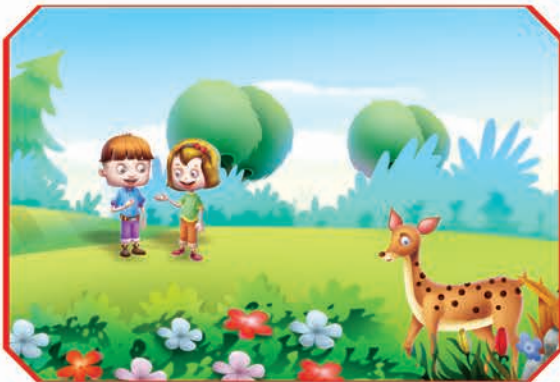


Let Me Answer

- What are five living things around you?
- What are nonliving things around your friend?



CLASSIFICATION OF THINGS



When we look at things in nature, we find that there are many things in nature. Some of these things are living and some others are non-living. We can classify all things into living things and non-living things.



Living Things

Living things are alive. For example :

1. **Human beings** : man, woman, girl, boy etc.



Boy

2. **Animals** : cow, dog, cat, elephant, lion etc.



Dog

3. **Birds** : crow, peacock, eagle, kite etc.



Crow

4. **Water animals** : fish, crocodile and other water organisms.



Crocodile

Non-living Things

These things do not have life in them.

E.g. : a car, a table, a pen etc.

These can be natural things or man-made things.

1. Natural Things

Some things like the sun, the moon, rocks, water etc., which are not made by human beings, are called natural things.



Moon

2. Man-made Things

Some non-living things like rubber, pencil, book, clothes etc., that are made by human beings, are called man-made things.



Train

Facts to know

- ⊙ All living things are natural.
- ⊙ All natural things may not have life.

Dissimilarities between Living and Non-living Things

Living things are different from non-living things in many ways.

Living Things	Non-living Things
1. Living things can breathe.	1. Non-living things cannot breathe.
2. Living things can grow.	2. Non-living things cannot grow.
3. Living things need air, water and food to live.	3. Non-living things do not need air, water and food to live.
4. Living things can move on their own.	4. Non-living things cannot move.
5. Living things can feel.	5. Non-living things cannot feel.
6. Living things can produce more of their kind.	6. Non-living things cannot reproduce.

LET'S RECALL

1. Men, women, plants, animals, birds and insects are living things.
2. Chairs, tables, cars, books, pens etc., all are non-living things.
3. Water, air, clouds, rocks, mountains and hills, all are natural things.

Word Power

classification : an arrangement of organisms in classes or categories

natural : produced by nature, not man-made

reproduce : to lay eggs or give birth to the young ones



Cross Curriculum Connect



1. Answer the following questions in short.

- Write the names of five non-living things.
- Write the names of two natural things.
- Write the names of five living things.
- Write the names of two man-made things.

2. Fill up the blanks with suitable words.

groups Sun living life many

- There are things in nature.
- Some of these things are which can move from one place to another.
- Things can be classified into two
- is a natural non-living thing.
- Non-living things do not have

3. Answer the following questions.

- What are non-living things?
- What are living things?
- Name three things that cannot move.
- Name three things that can move.
- What is the difference between natural and man-made things?

4. Tick (✓) the right and cross (✗) the wrong statements.

- a. All non-living things grow. ☐
- b. Plants, animals and human beings are living things. ☐
- c. Birds like crow, duck, eagle do not lay eggs. ☐

5. Multiple choice questions

- a. Living things are
 - (i) mountains ☐ (ii) hills ☐
 - (iii) sunlight ☐ (iv) cow, dog, cat etc. ☐
- b. Which of the following is a man-made thing?
 - (i) Mountain ☐ (ii) Cat ☐
 - (iii) Pencil ☐ (iv) Sun ☐

6. Give one word for each one of the following.

- a. A bird with wings
- b. An animal with four legs
- c. An animal that is a pet
- d. A non-living thing
- e. A non-living thing in space

7. Match the columns.

Column A

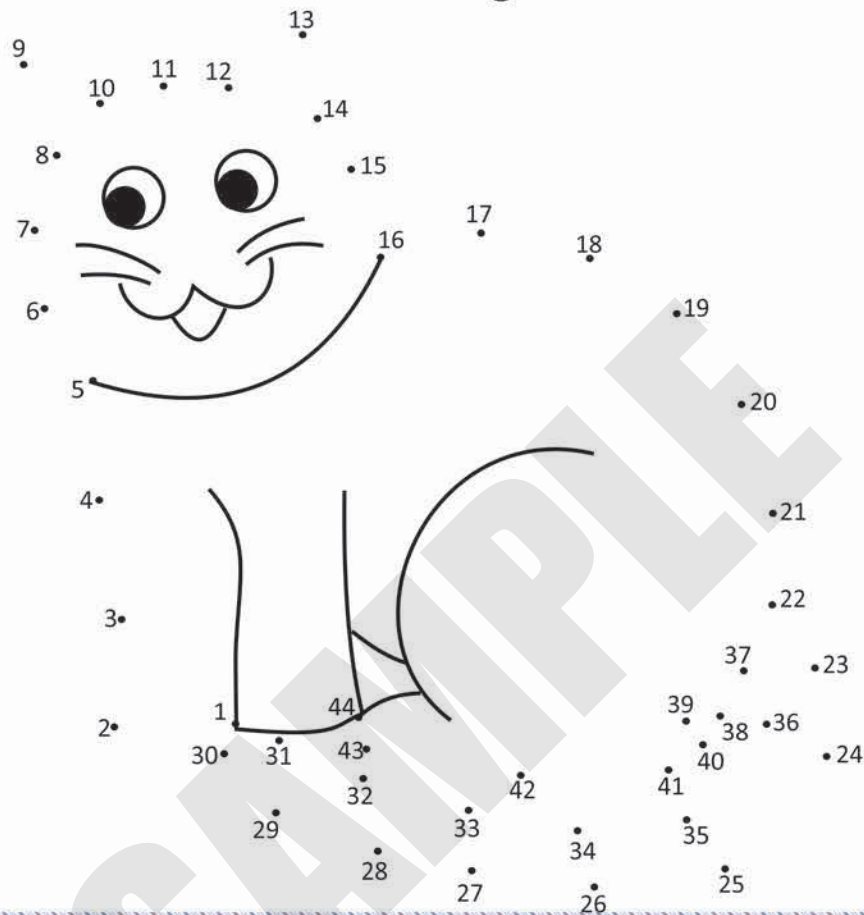
- a. Stone
- b. Snake
- c. Brick
- d. River

Column B

- (i) Living thing
- (ii) Natural
- (iii) Non-living thing
- (iv) Man-made



1. Take a small puppy and a stone. Observe both things. Find out which is a living thing.
2. Join the dots and find out who is hiding. Also colour it beautifully.



HOTS

1. You are having two things : a pet (say a dog) and a toy. Which one needs food ? Why do you think so ?
2. Sit calmly and watch your breath. Now, see if your book also breathes. If yes, then tell the reason and if no, then also tell the reason.

project Time

Make a list of living things and non-living things present in a park. Make two separate lists. Each list must have at least five entries. Paste these two lists in your scrapbook.



Classification of Plants

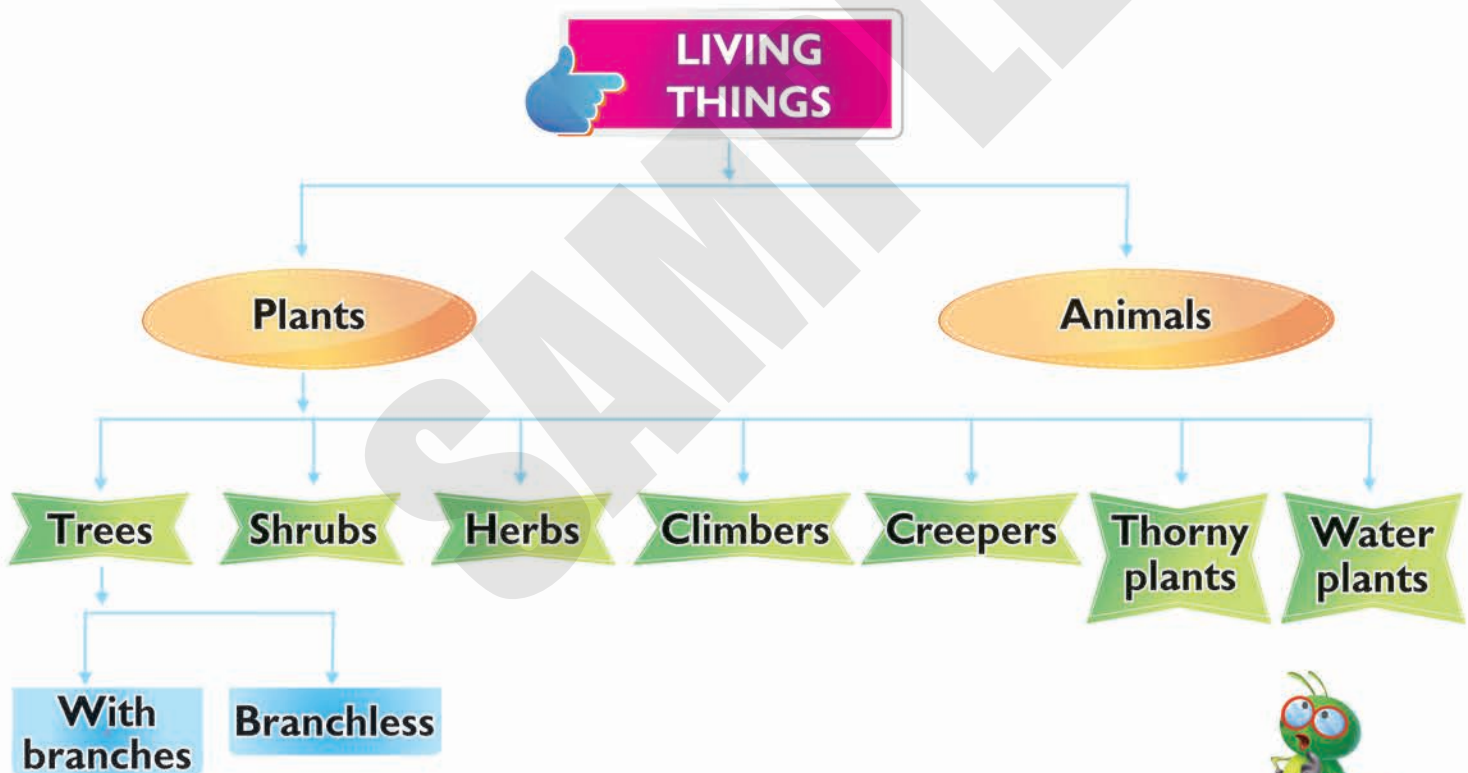
Learning Objectives

1. Classification of plants
2. The structure of trees
3. Features of shrubs
4. Usefulness of herbs
5. Specification about climbers and creepers



Let Me Answer

- Why plants are important to us?
- Have you ever encouraged anyone to grow plants?



WHAT ARE PLANTS?

Plants make our world look beautiful.

Plants are the living things which make food for themselves. Plants need soil, water, space, air and light to grow.

CLASSIFICATION OF PLANTS

Plants can be classified as follows :

Trees

Trees are huge and tall plants.

There are many kinds of trees that grow on land. E.g. : neem, banyan, mango etc.

Trees are of different shapes, sizes and heights.

Trees are source of wood and oxygen.

Trees have hard and woody stems called trunks.

Some trees have branches but some other do not have.



Neem



Banyan



Mango



Papaya tree



Ashoka tree



Coconut tree

Branchless Trees

Most of the trees have branches.

However, there are some trees which do not have branches.

They are Ashoka tree, papaya tree, coconut tree etc.

Shrubs

Shrubs are woody, short plants.

E.g. : rose, jasmine, china rose etc.

These are smaller than trees.

They are short but strong plants.

The shrubs have stems that divide at ground level.



Rose



Jasmine



China Rose





Herbs

Herbs are small and weak plants. E.g. : grass, mint, coriander etc.

They die after producing seeds.

Some herbs are very useful.

These are used in cooking, medicines and for drinking.

Most of the herbs grow in some particular season. So, herbs are also called seasonal plants.



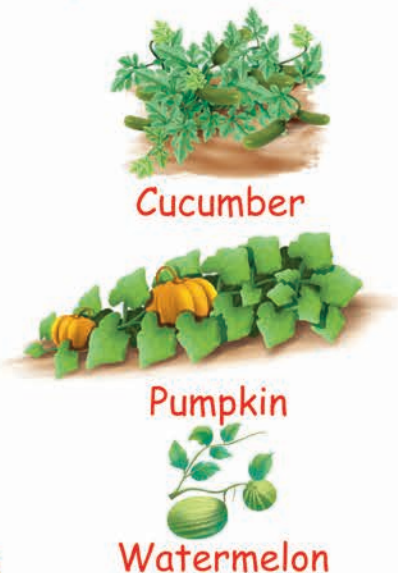
Climbers

Climbers are weak plants. E.g. : pea, bean, grapevine etc.

They have long and thin stems.

They depend on support to grow and stand erect.

They cannot grow straight. They need support to grow straight and erect.



Creepers

Creepers are plants with weak and thin stems. E.g. : cucumber, pumpkin, watermelon etc.

They grow and spread along the ground.

Their fruits are big.

Some ripen fruits are eaten raw. E.g. : watermelon, cucumber etc.

Some fruits are used in cooking. E.g. : pumpkin, gourd etc.

Thorny Plants

Some plants have sharp thorns.

Such plants are called thorny plants. E.g. : lemon, rose, cactus etc.



Rose



Lemon



Cactus

Water Plants

Some plants which grow in water, are called aquatic plants.

Stems of these plants sink in water.

Leaves and flower parts are above or on the surface of water. E.g. : lotus and water lily.



Lotus

Facts to know



- ⦿ Lotus is the National Flower of India.
- ⦿ The tallest trees of the world are Redwood trees, found in California USA.

LET'S RECALL

1. Trees are big plants.
2. Trees have strong and woody stems called trunks.
3. Shrubs are short, woody plants with stems that spread at ground level.
4. Herbs are flowering plants. Since most of these plants grow in a particular season, they are called seasonal plants.
5. Climbers are plants which require support to grow.
6. Creepers are plants which grow and spread along the ground. They have thin and weak stems.
7. Plants which have thorns are called thorny plants.



classification	: an arrangement of organisms in classes or categories
flowering plant	: the plant that gives out flowers
huge	: very big, large
organism	: a living plant or animal
seed	: a flowering plant's unit of reproduction
stem	: the main body or stalk of a plant rising above ground
trunk	: the woody and strong stem of a tree



Train Your Brain



Cross Curriculum Connect



1. Answer the following questions in short.

- What are creepers?
- Define climbers.
- Give two examples of seasonal plants.
- What are water plants?

2. Fill up the blanks with suitable words.

Creepers support small and weak Shrubs hard and woody

- Herbs are plants.
- Climbers need to grow.
- Trees have stems.
- have stems that spread at ground level.
- are the plants which grow along the ground.



3. Answer the following questions.

- a. What are plants?
- b. What are trees? Give two examples.
- c. From where do plants get their food?
- d. What are herbs? Give two examples.
- e. What are shrubs? Give two examples.

4. Tick (✓) the right and cross (✗) the wrong statements.

- a. Plants make their own food. ☐
- b. All trees are of the same shape, size and height. ☐
- c. Herbs die after producing seeds. ☐
- d. Climbers have thin and long stems. ☐
- e. Creepers have strong stems. ☐

5. Multiple choice questions

- a. Trees do not require the to grow.

- | | | | |
|----------------|--------------------------|---------------|--------------------------|
| (i) soil | ☐ | (ii) water | ☐ |
| (iii) sunlight | ☐ | (iv) darkness | ☐ |

- b. Which is the source, not provided by the trees?

- | | | | |
|--------------|--------------------------|--------------------------|--------------------------|
| (i) Wood | ☐ | (ii) Oxygen | ☐ |
| (iii) Metals | ☐ | (iv) Shelter to wildlife | ☐ |

- c. What is not required by plants to grow?

- | | | | |
|-----------------|--------------------------|------------|--------------------------|
| (i) Sunlight | ☐ | (ii) Water | ☐ |
| (iii) Moonlight | ☐ | (iv) Air | ☐ |

6. Give one word for each one of the following.

- a. A shrub
- b. A creeper
- c. A climber
- d. A branchless tree
- e. A tree with branches

7. Match the columns.

Column A

- a. Ashoka tree
- b. China Rose
- c. Pumpkin
- d. Mango
- e. Coriander
- f. Grapevine

Column B

- (i) Tree
- (ii) Creeper
- (iii) Shrub
- (iv) Herb
- (v) Climber
- (vi) Branchless tree



Activity Time

Draw a picture of a plant and label its parts like roots, stem, leaves, flower etc.



1. Name the water plant with bears our "National Flower".
2. Sanya has a money plant in her house. Her mother has tied a thread to the tip of the plant and other end of the thread to a higher point. Why?

1. Collect the samples of the following :

- (i) rose plant (flower twig only)
- (ii) jasmine plant (flower twig only)
- (iii) eucalyptus tree (leaves only)
- (vi) mango tree (leaves only)

Show those samples to you Science teacher.

2. Name the plants that you see around you. Make a list of trees, shrubs, herbs, creepers and climbers in the following table.

S.No	Name of the plant	Tree	Herb	Shrub	Creeper	Climber
1.						
2.						
3.						
4.						
5.						

3. Find out the regional names of common plants, e.g. : mint is called pudina, coriander is called dhania etc. Also make a list as shown.

S.No	Name of the plant	Regional name
1.		
2.		
3.		
4.		
5.		