

Living and Non-living Things

BEFORE WE START, LET'S CHECK

What you already know

Name the things that have life.



H U N



P L T



A N L

What you will know

What is around us?



What are natural and man-made things?



What are living and non-living things?



How living things differ from non-living things?

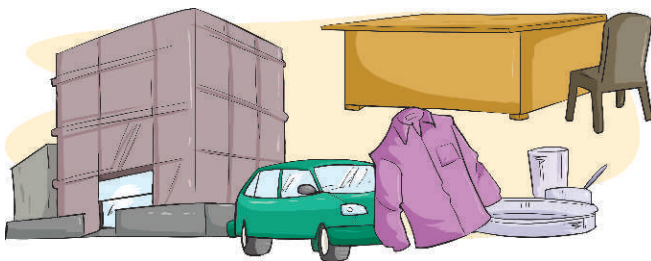


There are many things around us. In the classroom, we have friends, teachers, boards, chairs, bags, etc. At home, we have parents, beds, tables, TVs, etc. In a garden, we find plants, trees, flowers, grasses, butterflies, etc. In the sky, there are clouds, birds, aeroplanes, etc.

All things can be divided into two categories.

1. Man-made things

There are many things which are made by man. So, they are called **man-made things**.



Buildings, clothes, utensils, furniture, vehicles, roads, etc. are some man-made things.

2. Natural things

Many things in this world are not made by man. Nature has given these things to us. They are called **natural things**.



Plants, animals, birds, men, hills, rivers, clouds, etc. are some natural things.

LIVING AND NON-LIVING THINGS

Things also differ in one more way. Some things have life. They are called **living things**. Others do not have life. They are called **non-living things**.

All plants, animals and human beings are living things.

Living things differ from non-living things in many ways.

Living things need food and water

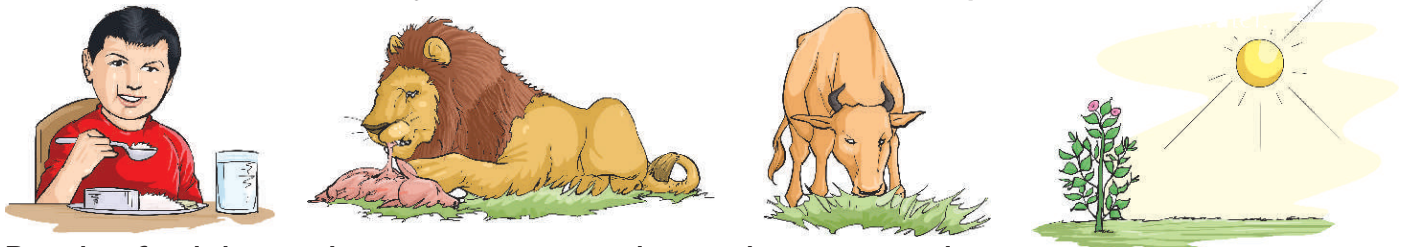
Living things cannot live without food. Food gives them energy to work. They need food to **grow** as well.

You eat food daily. Suppose you are hungry and do not get any food. How would you feel? You would start crying.

We get food from plants and animals.

Animals also need food. They roam around in search of food. They too get food from plants and other animals.

Plants also need food. They make their own food with the help of the sun, air and water.



Besides food, living things cannot stay alive without water also.



Non-living things do not need food and water.

Living things breathe

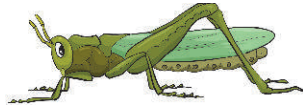
Cover your nose and mouth with your hand. How long can you do it? Not very long. After some time, you will feel uneasy. Why? It happens because you don't get air to breathe.

All living things need air to breathe.

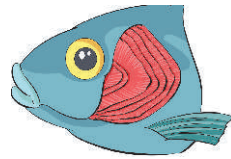




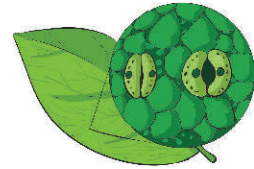
Most animals breathe through their nose.



Some animals breathe through the tiny holes in their body.



Fish breathe through gills.



Plants breathe through the tiny pores in their leaves.



Fun and Learn



Take a potted plant.



Put a jar over it.

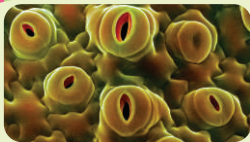


After some days, the plant will die.

Thus, it is proved that plants need air to live.

Non-living things do not breathe.

FIND OUT



Find out what stomata are. What is their use?

Living things grow

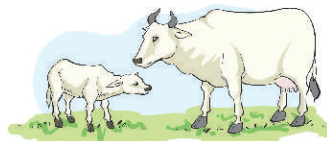
All living things grow with time. Do you remember how small you were a few years back? You will further grow into an adult. A calf grows into a cow, a small plant grows into a tree.



baby



adult



calf

cow



plant



tree

Have you ever seen your pencil or book grow?

Non-living things do not grow.

Living things move

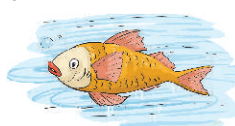
Living things move in different ways.



A dog runs.



A bird flies.



A fish swims.



A snake crawls.



A frog jumps.

KNOW A FACT



The bamboo is the fastest growing plant. It can grow up to 1 metre in one day.

We also move in different ways.



We walk.



We run.

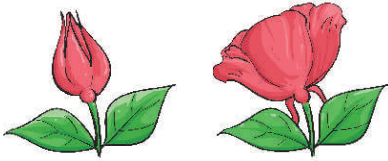


We jump.

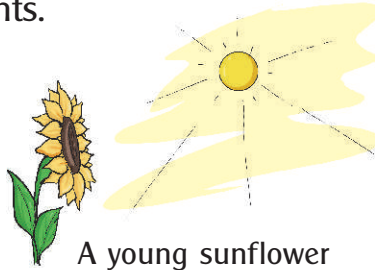


We swing.

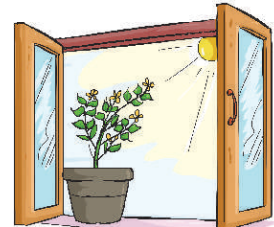
Plants do not move from one place to another. They are fixed to the ground. But they also show some special movements.



A bud opens up to become a flower.

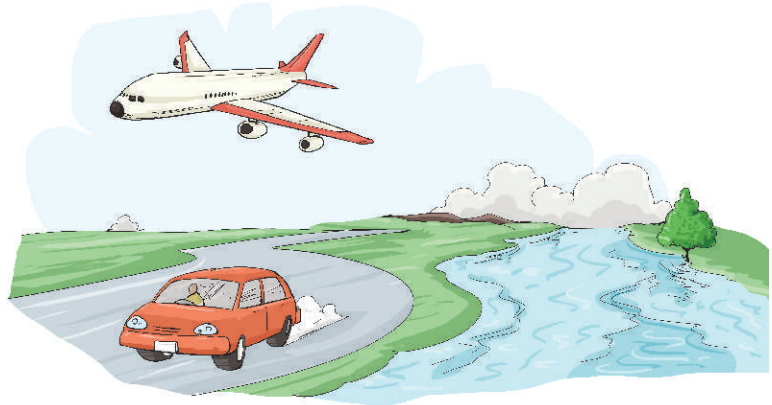


A young sunflower turns to face the sun.



A plant tends to grow towards sunlight.

Do non-living things move? You may have seen a car running, an aeroplane flying or river water flowing. But they do not move on their own. A car or an aeroplane moves using its fuel. River water flows down from a height.



Living things feel

All living things feel and respond.



We laugh when tickled.

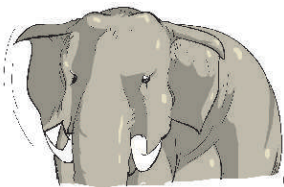


We cry when hurt.

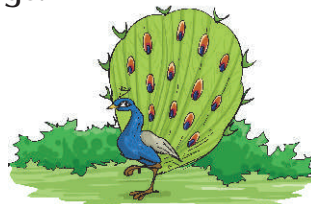


We shiver when feel cold.

Similarly, animals also show feelings.



An elephant flaps its ears to keep itself cool.



A peacock dances in the rain.



A dog barks at strangers.

Plants also feel and respond.

Have you seen a mimosa plant?

It is also called a 'touch-me-not' plant. If you touch the leaves of the plant, they fold.



Write answers



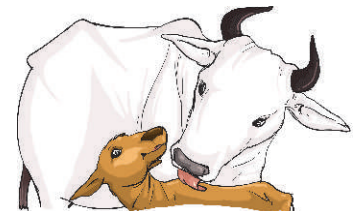
Write two more examples which show that animals also have feelings and they respond. _____

Non-living things do not feel and respond.

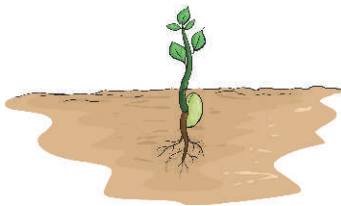
Living things reproduce

Living things produce more of their own kind. Your grandparents gave birth to your parents. Your parents gave birth to you.

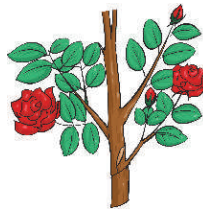
Animals also reproduce either by laying eggs or by giving birth to young ones.



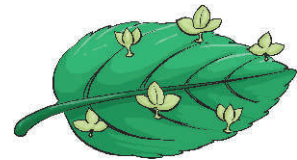
Most plants produce new plants through seeds. Some plants also produce new plants through their stems or leaves.



Most plants grow from seeds.



A rose plant can grow from a stem.



Some plants grow from the leaves of their parent plants.

Have you ever seen your doll give birth to a baby doll?

Non-living things do not reproduce.

Words to Remember

- | | | |
|-----------------|---|---|
| man-made things | – | things made by human beings |
| natural things | – | things made by nature |
| grow | – | to increase in size; to exist and develop |
| gills | – | the organ in the body of fish and some other water animals through which they breathe |
| pores | – | tiny openings through which liquids or gases may pass |

crawl	– to move with the belly on the ground
shiver	– to shake or tremble with cold
reproduce	– to produce young

Points to Recall

- ✿ There are many things around us.
- ✿ Some are man-made things *i.e.* made by man.
- ✿ Some are natural things given to us by nature.
- ✿ Things having life are called living things.
- ✿ Non-living things do not have life.
- ✿ Living things need food and water to live and grow. Non-living things do not live and grow.
- ✿ Living things breathe through the nose, gills, holes, stomata, etc. Non-living things do not breathe.
- ✿ Living things grow with time. Non-living things do not grow.
- ✿ Living things move in different ways. Non-living things do not move on their own.
- ✿ Living things feel and respond, non-living things do not feel and respond.
- ✿ Living things produce young ones of their own kind. Non-living things do not reproduce.

Exercises

A. Tick (✓) the correct option.

1. Which of the following is not a natural thing?

(a) river ☐ (b) sea ☐ (c) road ☐ (d) hill ☐

2. Which of the following makes its own food?

(a) lion ☐ (b) pigeon ☐ (c) shark ☐ (d) grass ☐

3. Which of the following breathe through gills?

(a) birds ☐ (b) fish ☐ (c) butterflies ☐ (d) snakes ☐

4. Which is the fastest growing plant?

(a) bamboo ☐ (b) banyan ☐ (c) money plant ☐ (d) eucalyptus ☐

5. Which of the following crawls?

(a) cheetah ☐ (b) snake ☐ (c) rabbit ☐ (d) cat ☐

6. Which of the following plants can grow from a stem?

(a) basil ☐ (b) spinach ☐ (c) rose ☐ (d) lotus ☐

B. Write 'T' for true statements and 'F' for false ones.

1. All plants, animals and human beings are living things.
2. Animals roam around in search of food.
3. Plants breathe through their flowers.
4. A pencil can grow into a pen.
5. Plants do not show any kind of movement.

C. Fill in each blank with the correct word.

1. _____ (*Living / Non-living*) things cannot live without food.
2. Most animals breathe through their _____ (*gills / noses*).
3. A small plant grows into a _____ (*tree / seed*).
4. River water flows _____ (*up / down*) from a height.
5. We shiver when we feel _____ (*hot / cold*).

D. Answer in one or two words.

1. What do we call the things given to us by nature? _____
2. What do we call the things having life? _____
3. What does a calf grow into? _____
4. What young flower turns to face the sun? _____
5. What plant closes up its leaves when touched? _____

E. Answer in one sentence only.

1. How do plants breathe?
2. In what direction does an indoor plant tend to grow?
3. What happens if we are tickled?
4. How does an elephant keep itself cool?
5. How do animals reproduce?

F. Answer in two or three sentences.

1. What are natural things? Give some examples.
2. Why do we need food?
3. Name some different ways of movement by living things.
4. An aeroplane flies like a bird. Is it a living thing?
5. How do plants reproduce?



BRAINSTORM

1. Why do plants not roam around for food?
2. A lion eats other animals. Is it dependent on plants for food? If yes, how? If not, why?
3. Wood is a non-living thing which we get from a tree, a living thing. Write the names of three more non-living things which we get from living things.



TELL YOUR TEACHER

Look at the pictures. Tell your teacher what good or bad thing the child in each picture is doing.



FIND OUT



Look at the following picture of a plant. This plant grows at such places where it cannot make enough food for itself. So, it eats insects and worms. Such plants are called insectivorous plants.



It has parts like a trap.



An insect or a worm enters it.



It closes the trap at once.



Then, it eats the prey.

Find out the name of this plant.

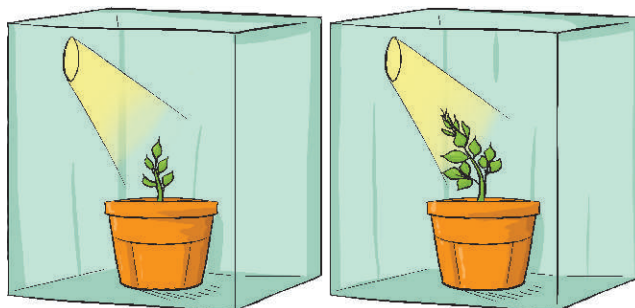
Project

Take a sheet of chart paper. Draw two large circles on it side by side. Write 'Living Things' below one circle and 'Non-living Things' below the other. Collect pictures of ten living things and ten non-living things. Paste them on their respective circles. Give your chart the title 'Living and Non-living Things'. Submit the chart to your science teacher.



Experiment

- Take a potted plant.
- Now take a large cardboard box without lid.
- Make a big hole in one of its sides as shown.
- Cover the plant putting the box upside down over it.
- Water the plant daily.
- After a few days, you will notice that the plant grows towards light.



Virtual Tour

For more information visit:

- <http://www.tes.co.uk/teaching-resource/Plants-Show-Movement-Sunflower-Touch-Me-Not-6212860/>
- https://www.youtube.com/watch?v=lnx48Ai1_Yc