1 Living and Non-living Things

My Learning PLAN

- **Know the differences between living things and non-living things**

WARM-UP

1. Look at the pictures here. Now write YES or NO in the table below.

chair

butterfly

Features	Chair	Butterfly
moves on its own		
does not breathe		
feeds		
produces babies		
gives out waste		
does not feel		
grows		

Look around you. You will see many things. Some are big, some are small; some are hard, some are soft; some are living, while others are non-living.

DIFFERENCES BETWEEN LIVING AND NON-LIVING THINGS

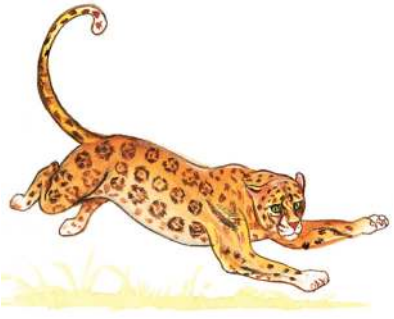
Living things differ from non-living things in many ways. Let us learn how.

Living Things Move

Living things can move from one place to another.

They move in search of food, shelter and to protect themselves from their enemies.

Animals like leopards and buffaloes move with the help of their legs. Birds and insects fly with the help of their wings. Fish swim with the help of their fins and tails. Snakes crawl from one place to another.

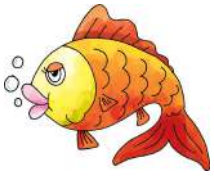


leopard

buffalo

bird

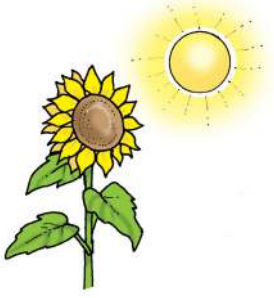
insect



fish

snake

Plants do not move from one place to another because most of them can make their food themselves. But different parts of a plant can show movement.



The sunflower always faces the sun.

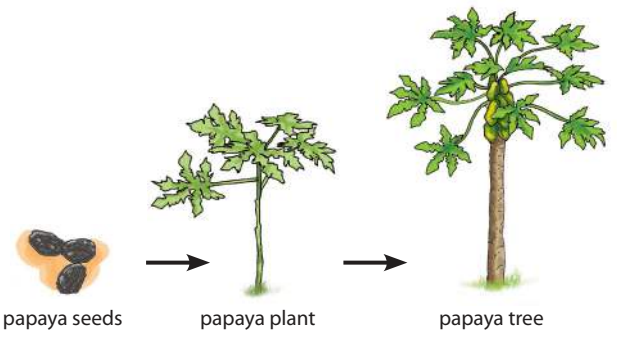
The leaves of the touch-me-not plant close when touched.

The jasmine flower (raat ki rani) opens only in the night.

On the other hand, non-living things like cars and bricks cannot move on their own.

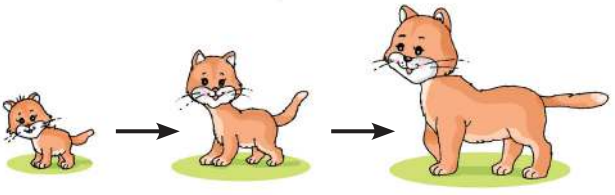
Living Things Grow

Living things grow and change shape and size.



A seed grows into a plant.

A1



A kitten grows up to become a cat.

You were born as a baby. Now, you have grown up. After some years, you will become an adult, like your parents.

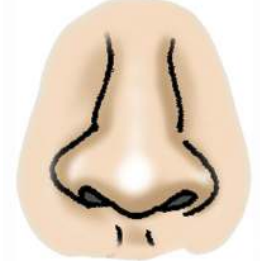
Non-living things stay the same and do not grow. For example, a table or a phone would always stay the same.

Living Things Breathe

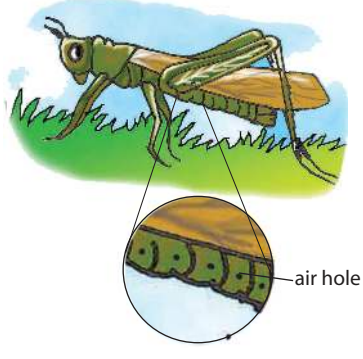
All living things breathe in air to stay alive.

Human beings and most animals breathe through their nose.

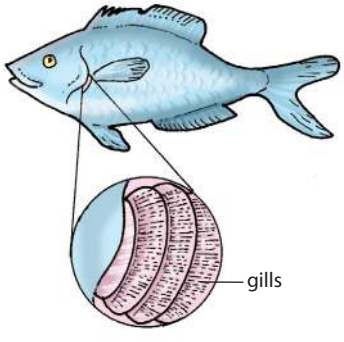
Insects, like grasshoppers, have **air holes** along the sides of their body for breathing. Fish breathe through gills. Plants breathe through tiny **pores** in the leaves called **stomata**.



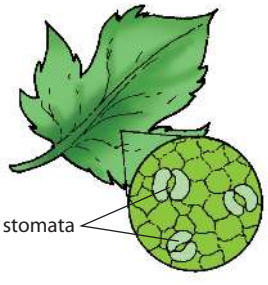
human beings—nose



grasshopper—air holes



fish—gills



plant—stomata

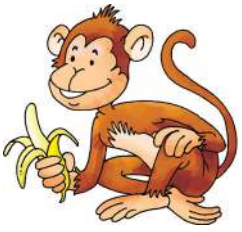
Non-living things do not breathe.

Living Things Need Food

Living things need food to live and grow.

Animals eat plants or other animals.

Plants do not need to go here and there to make food. They can make their own food.



A monkey eating a banana.

A tiger eating a goat.

Non-living things do not need food. Do you serve food to your computer? Yes/No .....

Info Bits

A crocodile can live without food up to two years!

Living Things Feel

When we get hurt, we feel pain. We can also smell food being cooked in the kitchen. Eyes, ears, nose, tongue and skin are **sense organs**. All living things feel the changes around them through their sense organs. A cat can smell a mouse. Insects always fly towards light.

We feel pain if we get hurt.

We can smell food.

Plants do not have sense organs, but they can feel the changes around them. A plant kept in the shade will grow in the direction of sunlight.

A2

Non-living things do not feel. If you drop your pencil, it will not be hurt.

Living Things Reproduce

Most of the plants produce seeds that grow into new plants. Dogs give birth to puppies, cows to calves, and so on. Human beings have babies too. Birds and some animals such as snakes, crocodiles, fishes, lizards and turtles lay eggs. Babies hatch from these eggs. This is known as **reproduction**.

a dog with its puppy

a turtle with its eggs

a woman with her baby

Non-living things do not reproduce.

air holes: tiny holes along the sides of the bodies of insects that help them in breathing

pores: very small holes that cannot be seen by eyes

stomata: pores in the leaves of the plants through which they take in air

sense organs: Eyes, ears, nose, tongue and skin are sense organs. We can feel changes around us with the help of sense organs.

reproduction: the process of producing more of one's own kind

- Living things move, grow, breathe, need food, feel the changes around them, and reproduce.
- Non-living things do not move, grow, breathe, need food, feel or reproduce.
- Some living things reproduce by laying eggs, others give birth to young ones.

REVIEW ZONE

A **Tick (✓) the correct answer.**

1. Which of the following things does not breathe?

   a. lion b. cooker c. bird d. fish

2. Which of the following actions can a frog not do?

   a. move b. feel c. make food d. grow

3. Which of the following can reproduce?

   a. table b. paper c. hen d. watch

4. How many sense organs do human beings have?

   a. 5 b. 6 c. 4 d. 2

B **Choose the most suitable word from the following to fill in the blanks.**

air	seeds	living	eggs	movement	reproduction	non-living

1. Plants and animals are ..... things.
2. A rock is a ..... thing.
3. All living things need ..... to breathe.
4. The process of producing young ones is called ..... .
5. Birds reproduce by laying ..... .
6. Most plants grow from ..... .

C **State whether the following statements are TRUE or FALSE.**

1. A cycle cannot move on its own. .....
2. Living things feel changes around them through their sense organs. .....
3. A dog lays eggs. .....
4. A mango tree has to go here and there to look for food. .....
5. Insects can fly with the help of wings. .....

D **Colour the boxes with the names of non-living things yellow and those with the names of living things green.**

RAT | ELEPHANT | SPARROW | PEN | BOTTLE | CLOUD | FLOWER | LAMP | TRAIN | WASHING MACHINE


From the names given in the boxes,

a. name the things that can move on their own.

.....

b. name the things that cannot grow.

.....

E Answer the following questions.

1. Why do animals move?
2. What is reproduction?
3. How do fishes reproduce?
4. Why do living things need food?
5. What movements do plants show?
6. How is a bird different from a book?
7. Where did sunflower get its name from?

HOTS CORNER

1. What can an animal do that a plant can't? Choose from the options below.

make their own food, move freely from place to place, eat other organisms, grow, have roots, reproduce

PLANTS	BOTH	ANIMALS

a. Write the characteristics of plants on the left side.

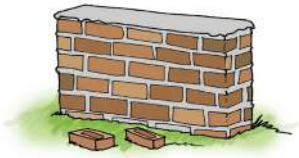
b. Write the characteristics of animals on the right side.

c. Write the characteristics common to both plants and animals in the middle.

2. Why are the following things not considered to be living things?

a.  that flies high in the sky.

.....

b.  that grows by joining bricks.

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ENHANCE YOUR LIFE SKILLS

1. Play games that involve the use of your sense organs. Games such as Chinese whisper (ear), pinning the tail on the donkey (touch), blind man's bluff (eyes) are a lot of fun.
2. Find out from which living things the following items are obtained.

(Clue: We obtain some from plants while the others are obtained from animal sources.)



ONLY A CLICK AWAY

1. To do an interactivity or play a quiz on 'Living Things vs Non-living Things', visit the following link.
http://www.bbc.co.uk/schools/scienceclips/ages/5_6/ourselves.shtml

ACTIVITY BAG

1. Living Things Grow

Activity 1

Take soil in two glass bowls. Bury a pebble in one bowl and a bean seed in the other. Sprinkle water over both. Keep the bowls in the sun. Observe both for six days. What do you see? Write the observations in your science notebook.

2. Plants Can Feel the Changes Around Them

Activity 2

Take a cardboard box. Cut out a square window on one side of the box. Place a small pot with a plant inside it. Close the box. Observe after some days. Draw the observations in your science notebook.

You will see that the branches of the plant have started growing towards the window. They are actually growing in the direction of ……..

3. Make groups of five students each. Take a chart paper and draw an animal each that shows the following types of movements. *One has been done for you.*

Swim	Crawl	Climb	Swing	Walk
				

Teacher's Notes

- Teacher can do a comparative study of living things with non-living things, for example, the teacher could ask students to compare a dog with a car.
- Teacher can try and show a touch-me-not plant to the class to illustrate that plants too show movements.