

## About the Chapter

- Shape of the earth
- Atmosphere
- Space

Unit 1 : Our Earth

# 1

## Earth : Our Home

There are many planets, satellites, comets and meteors in the sky. It is called the **solar system**. This family has eight planets. All these planets revolve around the sun. One of these is a unique planet—earth. It has all the required elements needed for life – air, water and land. Earth is the third closest planet to the sun.

The surface of the earth is not the same everywhere. It is made up of land and water. Three-fourths part of the earth's surface is water while one-fourth part is land. We do all the activities on land only. Farmers grow crops on the land. All the homes, factories and roads are made on land only. All the plants, trees, animals and birds live on land only. This way, the earth is our home.

Earth is very big in size and round like a ball in shape. We cannot see the whole earth at the same time. If we stand at a high place and look far, we see the earth and the sky meeting at a place. In the same way, if we stand at a beach and look far, we see the surface of the water and the sky meeting. Actually, it is not so. It is an imaginary meeting line. It is called the **horizon**.

There is a layer of air around the earth which is known as **atmosphere**. Humans, plants and animals all need air to live. Life is not possible without air.

Hundreds of years before, people believed that the earth was flat. They feared to travel far



Solar System



### Interesting Fact

Sun is situated at a distance of 150 million km from the earth. Sun rays take about 8 minutes to reach the earth.



Horizon



Earth



as they thought they would fall off the earth. Nearly 500 years ago, a Portuguese sailor of Spain, **Ferdinand Magellan**, decided to find out the real shape of the earth. He travelled on a ship towards the west and went on sailing straight. He never looked back. After nearly three years, he reached the same place from where he had started. Thus, he concluded that the earth is round and it does not have any edges.

Some decades ago, some astronauts went into space. There they took photographs of the earth. In these too, the earth is round.

The first person to go into space was **Yuri Gagarin** in 1961. After this, two American astronauts, **Neil Armstrong** and **Edwin Aldrin**, landed on the moon on 21 July, 1969. They too took photographs of the earth. In 1984, Indian astronaut, **Rakesh Sharma**, went into the space and confirmed that the earth is round.



Ferdinand Magellan



Yuri Gargin



Edwin Aldrin



Neil Armstrong



Rakesh Sharma



### Remember

The earth spins on its axis from the west to the east. It completes one rotation in 24 hours. The completion of one round means one day and one night.



### Interesting Fact

**Kalpana Chawla** was born in Karnal, India in 1961. She became the first woman of Indian origin to go into space. In 2003, while coming back from her second space journey, the space craft exploded and she died along with other astronauts.



### Learnt by Now



- The solar system has 8 planets. Earth is one of them.
- Three-fourths of the earth is water and one-fourth is land.
- The place where earth and the sky seem to meet is called the horizon.
- The layer of air around the earth is called atmosphere.
- Ferdinand Magellan was the first to find out that the earth is round.
- Many astronauts who went into space have confirmed that the earth is round.



# Exercise



## A. Tick (✓) the correct answer : (MCQs)

- How many planets does the solar system have ?  
 (a) Five  (b) Eight  (c) Ten
- The layer of air around the earth is called :  
 (a) weather.  (b) climate.  (c) atmosphere.
- What is the shape of the earth ?  
 (a) Flat  (b) Round  (c) Square
- How does the earth move on its axis ?  
 (a) Like a top  (b) Like a car  (c) Like an aeroplane

## B. Write answers to the following questions :

- What is the solar system ? How many planets does it have ?
- Why do we call the earth our home ?
- What do you mean by the horizon ?
- Who was Magellan ? How did he find the shape of the earth ?
- What is atmosphere ? What is its importance to us ?

## C. Fill in the blanks :

- All the planets move around the \_\_\_\_\_.
- The \_\_\_\_\_ of the earth is very big.
- The layer of air around the earth is called \_\_\_\_\_.
- Earlier, people thought that the earth was \_\_\_\_\_.
- \_\_\_\_\_ happen due to earth's rotation on its axis.

## D. Tick (✓) the correct statements :

- The solar family is called the solar system.
- Life is not possible on the earth.
- We cannot see the whole earth at the same time.
- Magellan was a native of Portugal.
- Earth is round like an orange.

## E. Write the following :

- First person to know the shape of the earth. \_\_\_\_\_
- The first Russian in space. \_\_\_\_\_
- Two Americans on the moon, in 1969. \_\_\_\_\_
- First Indian astronaut in space in 1984. \_\_\_\_\_

## ■ Creative Task

❖ Collect pictures of the earth taken from the space and paste them in your