

# The Earth—Our Home



## The Lesson at a Glance

In this chapter, we will learn about:

- the earth as a unique planet
- the composition and the movements of the earth

## Get Prepared

Anna had accidentally locked herself inside the car on a family picnic trip. While waiting for her parents to help her out, she started feeling giddy. The moment the lock of the door clicked open, she took a deep breath and felt better.

Why did she feel sick inside the car?

## LET'S KNOW OUR EARTH

We need air to breathe. We cannot live without air. Our earth has gifted us air, water, soil, forests and minerals. The earth is a unique home for us. The land and water bodies on the earth are of great importance to us. Our earth gives us various kinds of food. Beautiful animals, birds, fishes also live here.

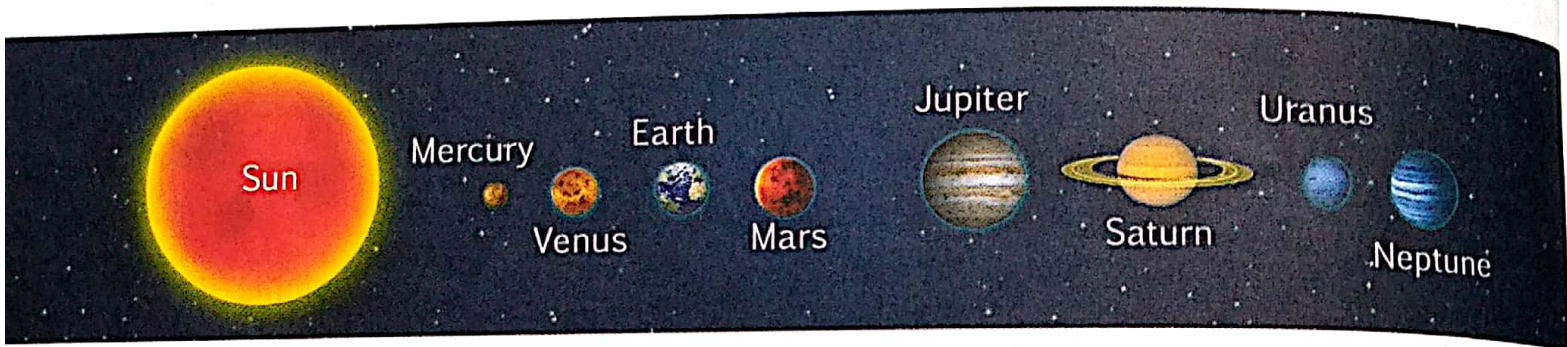
Air and water are the two most important elements of the earth. It is impossible to live without these two elements. The earth is the only **planet** where there is life. Plants, animals and human beings live on the earth.

**planet:** a heavenly body in space that moves around the sun and receives light from it



## WHAT MAKES UP THE EARTH?

Three quarters of the earth's surface is covered with water. One quarter of the earth's surface is covered with land. The earth is surrounded by a layer of air called **atmosphere**. The water on the earth is collected in lowlands which form the lakes, rivers, seas and oceans. The land on the earth is in the form of plains, sandy deserts, hills and mountains. Oxygen, the air we breathe, forms a part of atmosphere.



Eight planets of the Solar System

## MOVEMENTS OF THE EARTH

The earth spins like a top around an imaginary line called **axis**. This movement is known as rotation. Rotation of the earth causes day and night. The earth takes 24 hours to complete one rotation. During rotation, the part of the earth that faces the sun receives light and has day. The part which is away from the sun does not receive light and has night.

The earth while spinning on its axis also moves around the sun. The movement of the earth around the sun is called revolution.



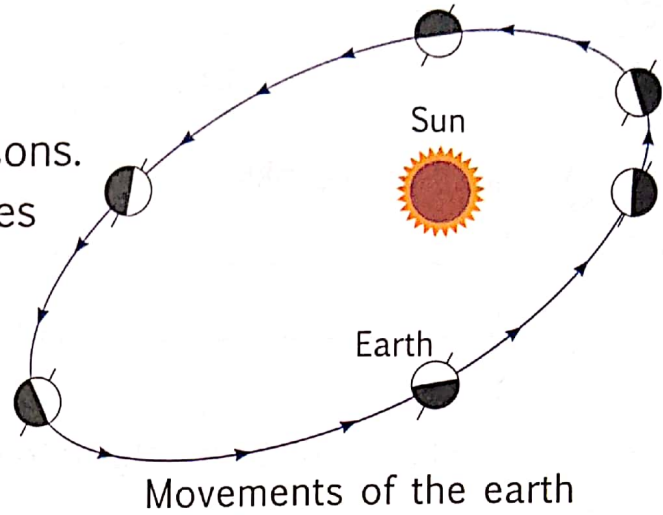
Rotation of the earth



**atmosphere:** layer of air surrounding the earth; **axis:** an imaginary line passing through the centre of the earth, around which it rotates

# REVOLUTION OF THE EARTH

Revolution of the earth causes seasons. The earth, like all the planets, moves around the sun in a fixed path called **orbit**. This orbit is oval in shape. The earth takes  $365\frac{1}{4}$  days or one year to complete one revolution.



## Person in News



In 1519, a Portuguese sailor named Ferdinand Magellan started his journey in a ship from Spain along with other sailors. After travelling for about three years, their ship reached the same place from where they had started in Spain. This meant they had sailed around the earth. His journey proved that the earth is round.

## Did You Know?

The earth looks blue from space because of the presence of water. Our earth is also called the blue planet.

## Update Yourself

The 'earth' in Sanskrit is called *prithvi*, in Greek, *Gaia* and in Latin *Terra*.



## Summary

- ▶ The earth is a unique planet with life on it.
- ▶ Three quarters of the surface of the earth is covered with water.
- ▶ One quarter of the surface of the earth is covered with land.
- ▶ The layer of air surrounding the earth is called the atmosphere.
- ▶ Rotation causes day and night on the earth.
- ▶ Revolution causes seasons on the earth.

**orbit:** the path on which planets move around the sun



## TEST YOURSELF

(A) Fill in the blanks.

1. \_\_\_\_\_ of the surface of the earth is covered with water.
2. \_\_\_\_\_ is the air we breathe.
3. \_\_\_\_\_ and \_\_\_\_\_ are the two most important elements of the earth.

(B) Write whether the following statements are true or false. Write 'T' for true and 'F' for false.

1. The earth gives various kinds of food. \_\_\_\_\_
2. One quarter of the earth's surface is covered with water. \_\_\_\_\_
3. The earth spins like a ball on its axis. \_\_\_\_\_
4. The earth takes 24 hours to complete one rotation. \_\_\_\_\_

(C) Tick (✓) the correct answer.

1. There are \_\_\_\_\_ planets in the solar system.  
(a) two  (b) four  (c) eight
2. What is the layer of air surrounding the earth called?  
(a) Atmosphere  (b) Biosphere  (c) Lithosphere
3. One quarter of the surface of the earth is covered with  
(a) air  (b) water  (c) soil

(D) Match the following.

Column A

1. Air
2. Water
3. Lake

Column B

- (a) water body
- (b) we breathe it
- (c) three quarters of the earth's surface



E Give reasons for the following.

1. Life exists on the earth
2. Formation of days and nights

F Answer the following questions.

1. What are the two most important elements of the earth?
2. Where is the water on the earth collected?
3. What is the difference between rotation and revolution?
4. What is an orbit?

## G Hots

Why is the earth called a blue planet? Complete your answer with correct reasons.

### ACTIVITY

Go to the school playground and collect any two things from the playground. Display the things collected in the classroom. Write two lines on the things you have collected.

### TIPS FOR THE TEACHER

Draw eight orbits on the floor. Ask some students to play the role of the sun and the eight planets. While the students move along the orbit they must also spin. This would make the learners understand the concept of rotation and revolution better.

