

SHAPE OF THE EARTH

The earth is round like an orange. It is slightly flat at the poles and bulging in the middle. Long ago, people thought that the earth is flat. Hundreds of years ago, some european sailors proved that the earth is round. They started from a certain place and went on sailing till they arrived on the place from where they had started. Thus, they proved that the earth is round.



The Earth is round

When there is an eclipse of the moon, the earth casts a round shadow on the moon. A shadow has the same shape as that of the object. Thus, the moon eclipse proves that the earth is round.

American astronauts, who landed on the moon in 1969, saw that the earth looks round. Photographs taken from space trips, have conclusively proved that the earth is round.



WHY DOES THE EARTH LOOK FLAT ?

A small part of a big arc looks straight. As we see only a small part of the big arc of the earth, it appears flat to us.



ATMOSPHERE

The earth is surrounded by a layer of air called **atmosphere**.

There are three parts of water and one part of land on the earth.

MOVEMENTS OF THE EARTH

Rotation

Earth rotates on its axis.

Do You Know ?

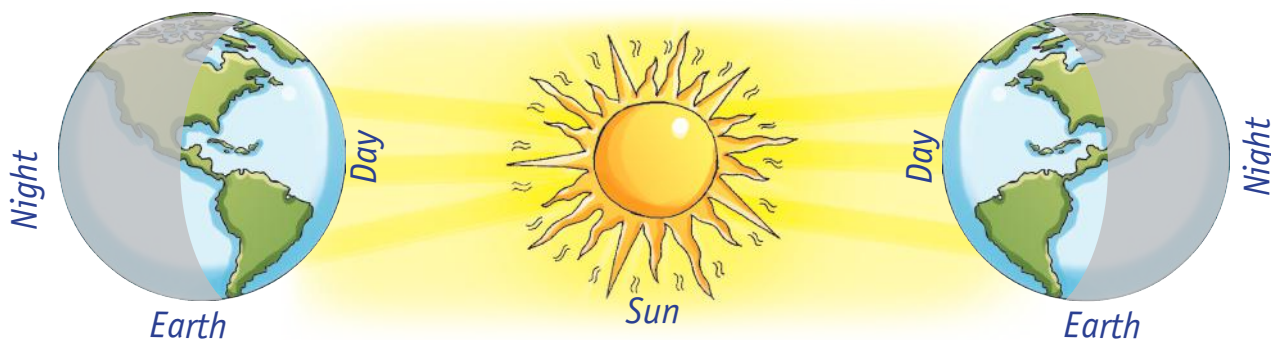
The Earth is 4.56 billion years old.

Activity : 1

Take a bangle and spin it on a table. The spinning bangle looks like a ball. We find a vertical line in its centre. This is called axis. The axis of the Earth is an imaginary line at the centre of the globe. The globe spins around the axis. This is called rotation.

Day and Night

The earth spins from west to east. It completes one rotation in 24 hours. Its axis is slightly tilted. Half part of the earth which faces the sun, gets light.

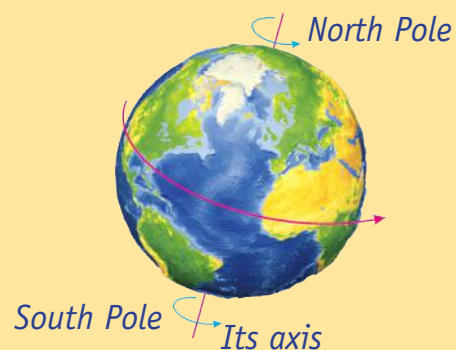


Activity : 2

Rotate a rubber ball in front of a torch light. In the picture given below A does not get light in position 1 and 2. It gets light in position 3 and 4. Thus, only one half of the ball gets light at a time.

Do You Know ?

All planets rotate on their axis from West to east. Venus is the only planet which rotates from east to west.



Rotation of the earth on its axis causes day and night. The part of the earth facing the sun has day and the other part has night. This situation reverses in 24 hours.

REVOLUTION

The earth moves around the sun. It finishes one complete revolution in 365 days.

How are Seasons Caused?

The earth's movement in its orbit around the sun causes seasons. As revolution takes a year, the four positions causing seasons have three months each. The parts which is near the sun for three months has summer.



Know the Keywords :

Earth : The planet on which we live.

Rotation : Movement of the earth.

Revolution : Movement of the earth around the sun in a fixed elliptical orbit.

Axis : An imaginary line which seems to run through the centre of the earth.

Point to Remember

- The earth is round in shape.
- It exhibits two types of movements. Rotation on an imaginary axis and revolution around the sun. The earth rotates and revolves at the same time !
- Rotation of the earth causes days and nights. The earth takes 24 hours to complete one rotation on its axis.
- Revolution of the earth brings about changes in seasons. The earth takes 365 $\frac{1}{4}$ days to revolve around the Sun.

EXERCISE TIME

A. Multiple choice questions (MCQs).

Tick (✓) the correct option :

1. The full moon day is called _____.

a. Purnima b. New moon c. Amavasya

2. The new moon day is called _____.

a. Amavasya b. Crescent moon c. Purnima

3. The spinning of the earth around its own axis is called _____.

a. Rotation b. Revolution c. Atmosphere

4. The earth takes _____ to revolve around the sun.

a. 365 1/4 days

b. 360 days

c. 425 1/4

B. Tick (✓) the correct and cross (X) the incorrect ones :

1. A new moon day is called Purnima.

2. Earth rotates on its axis.

3. The earth spins from west to east.

4. Rotation of the earth on its axis causes day and night.

C. Fill in the blanks with the given words :

European, American, Eclipse, Flat, Axis

1. The earth rotates on its _____.

2. _____ sailors found that the earth is round.

3. _____ astronauts proved that the earth is round.

4. Shadow of the earth during lunar _____ proved is round.

5. The earth looks _____ as a small part of a big arc appears straight.

D. Answer the following questions :

1. How many planets do we have in our solar system?

2. What is atmosphere?

3. What is the proportion of land and water on earth?

4. Which movement of earth causes day and night?

5. Which movement of earth causes seasons?



Creative Work

- Label the planets of the solar system.

