



1

AROUND THE GLOBE

All of us live on the Earth. It is our home. It is also home of plants and animals. The Earth is an oblate spheroid in shape. Its surface is divided into **land** and **water**. About 71 per cent surface of the Earth is under water. The rest 29 per cent of the total surface area is land. The large water bodies of the Earth are called **oceans**. There are five oceans in all.

1. The Pacific Ocean
2. The Atlantic Ocean
3. The Indian Ocean
4. The Arctic Ocean
5. The Southern Ocean

The large land masses of the Earth are called **continents**. There are seven continents in all.

1. Asia
2. Africa
3. Australia
4. Antarctica
5. Europe
6. North America
7. South America



Our Earth

Our country, India, is in Asia. **Asia** is the largest continent and **Australia** is the smallest continent. **Antarctica** is the only continent which does not have permanent human population.

GLOBE

The Earth is a vast planet. How can one study all the places on it? So, a model of the Earth was made. This model was called a **globe**.

A globe accurately represents the Earth's surface. It helps us to study the Earth. We can easily locate the oceans and continents on it. But, it is not possible to see the whole Earth at a time on the globe. We can see only half of it at a time. The other half can be seen by rotating the globe around a rod that passes through two extreme points. This rod represents the **Earth's axis** and the extreme points represent the **Earth's poles**. The point at the top of the globe is called the **North Pole** and the point at the bottom is called the **South Pole**.

There are two sets of lines drawn on the surface of the globe. The full circles that run from east to west are called the **lines of latitude**. The semicircles that run from one pole to another in a north-south direction are called the **lines of longitude**. The lines of latitudes and longitudes cross each other at right angles.

LINES OF LATITUDE OR PARALLELS

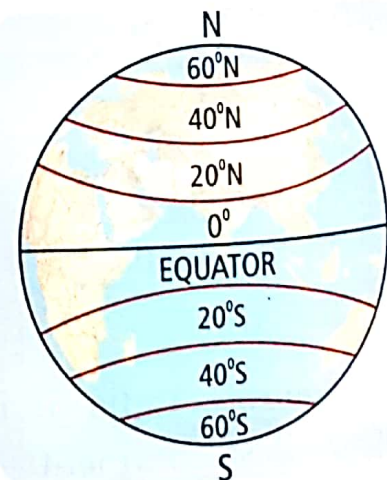
The lines of latitude are parallel to each other. Hence, they are also called the **parallels**. The parallels are placed at equal distances and they neither touch nor cut each other. We find a circle that runs exactly halfway between the North Pole and the South Pole. It is the largest parallel. It is called the **equator**. It divides the globe into two equal parts. The northern half is called the **Northern Hemisphere**. The southern half is called the **Southern Hemisphere**.

FOCUS

The Pacific Ocean is the largest ocean of the Earth.



A Globe



Parallels are used to measure the distance or position of a place which lies north or south of the equator. This distance is called **latitude**. We take the equator as the reference line, we say, it is at 0° latitude. The North Pole is at 90° north latitude (90°N) and the South Pole is at 90° south latitude (90°S). The other parallels are marked between 0° and 90° .

FOCUS

The world's largest globe is called the Unisphere. It was built for the World's Fair held in New York in the year 1964. It is 37 metres in diameter and weighs 40,80,00 kg.

SPECIAL PARALLELS

There are four special parallels or latitudes apart from the equator and the poles. They are as follows:

1. The Tropic of Cancer is at $23\frac{1}{2}^\circ\text{N}$.
2. The Tropic of Capricorn is at $23\frac{1}{2}^\circ\text{S}$.
3. The Arctic Circle is at $66\frac{1}{2}^\circ\text{N}$.
4. The Antarctic Circle is at $66\frac{1}{2}^\circ\text{S}$.

FOCUS

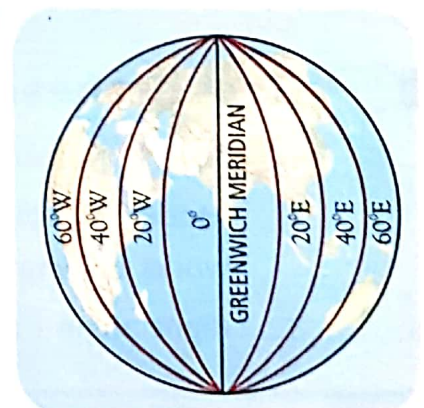
The lowest known point on earth is called Challenger Deep. It is located in the Pacific Ocean near Guam in the Philippine Sea at the end of the Mariana Trench.

The special parallels divide the Earth from north to south into various heat zones. You will learn about them in Lesson 3.

LINES OF LONGITUDE OR MERIDIANS

The lines of longitude are also called the **meridians**. All the meridians meet at the poles, crossing the parallels. They are all equal in length.

The meridian which passes through the Greenwich Observatory at Greenwich in England has been recognised as the **Prime Meridian** since 1884 by all the countries of the world. It is numbered 0° . All other meridians are numbered east or west of the prime meridian upto 180° . The distance measured east or west of the prime meridian is called **longitude**. The 180° meridian passes through the Pacific Ocean.



HOW TO LOCATE PLACES

The framework on the globe formed by the parallels and meridians are called a **grid**. This grid helps us to locate places on the globe. If we have to locate a place on the globe, we must know its parallel and meridian. Suppose, a place lies at about 35° N and 40° E. How will we locate it? We have to see the crossing point of the parallel of 35° north of the equator and the meridian of 40° east of the prime meridian. This point will help us to locate the place.

FOCUS

The first ocean to be crossed by an airplane and by a ship was the Atlantic Ocean.

FOCUS

Australia is a continent with only one country.

FOCUS

Europe is the only continent without any desert.

FLASH BACK

1. The surface of the Earth is divided into land and water.
2. There are five oceans, namely, the Pacific Ocean, the Arctic Ocean, the Atlantic Ocean, the Southern Ocean and the Indian Ocean.
3. There are seven continents, namely, Asia, Africa, Australia, Antarctica, Europe, North America and South America.
4. A globe is a model of the Earth which represents accurately the surface of the Earth.
5. The lines of latitude are also called the parallels because they are parallel to each other.
6. The lines of longitude are also called the meridians.
7. The meridians are all equal in length and they meet at the poles, crossing the parallels.

Recall these new terms

1. Pole - opposite ends of the earth's axis.
2. Model - a smaller copy of a real object often used to show how something works or what it looks like.
3. Right angle - an angle equal to 90° .



EXERCISES

A. Answer in brief.

1. What are oceans?
2. Name the seven continents.
3. What are the advantages of a globe?
4. Write any three differences between parallels of latitude and meridians of longitude.
5. What is a grid? How is it useful?



ACTIVITY

B. Choose the correct alternative.

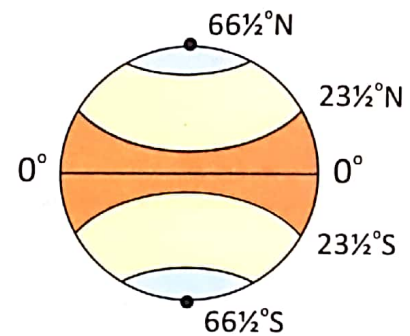
1. The per cent of land on the Earth is—
(a) 39 (b) 29
(c) 21 (d) 31
2. The continent in which India is located is—
(a) Africa (b) Europe
(c) Australia (d) Asia
3. The lines of latitude are also called—
(a) Parallels (b) Meridians
(c) Axis (d) Equator
4. The ocean through which the 180° meridian passes is the—
(a) Pacific (b) Indian
(c) Antarctic (d) Arctic
5. The ends of the Earth's axis are called—
(a) Points (b) Poles
(c) Tropics (d) Circles

C. Name the following.

1. The largest ocean of the world.
2. The only ocean named after a country.
3. The smallest continent.
4. A model of the Earth.
5. The largest parallel.

D. Given below is the diagram of the Earth with important parallels and their values marked. Name the parallels.

1. 0° _____
2. $23\frac{1}{2}^\circ$ N _____
3. $66\frac{1}{2}^\circ$ N _____
4. $23\frac{1}{2}^\circ$ S _____
5. $66\frac{1}{2}^\circ$ S _____



E. Match the following.

- | | |
|------------------------|--|
| 1. Pacific ocean | a. No permanent human population |
| 2. Ocean | b. part of the globe above the equator |
| 3. Northern Hemisphere | c. 180° longitude |
| 4. Antarctica | d. 0° longitude |
| 5. Prime meridian | e. large water bodies |

F. Additional activity.

1. Mark all the continents and oceans on an outline political world map.
2. Given below are some facts about the continents and oceans of the world. Read them and guess the continent or the ocean.
 - a. The ocean with its name meaning 'peaceful.'
 - b. The warmest ocean in the world.
 - c. The smallest ocean.
 - d. The world's hottest continent.
 - e. Geographically, this continent is not a continent.