

Lesson-3 Earth: Models and Features

In the previous chapter we have discussed about our planet earth and how Ferdinand Magellan proved that the earth is round.

In this chapter we will further discuss about

*Globes * Maps *Oceans *Continents *Directions.

As we all know that the earth is very large and spherical in shape like a ball.

Globes: A globe is a model of the earth. The word “**globe**” comes from the Latin word **globus**, meaning round mass or sphere. A globe shows the political and physical features of the earth.

As we have discussed in the previous chapter the shape of the earth is round but it is slightly flattened at both the poles and tilted on its axis.

Axis is an imaginary line on which the earth turns.

We can also observe the imaginary lines like the Equator in the centre, the Tropic of Cancer, the Tropic of Capricorn, the Arctic Circle and the Antarctic Circle.

The horizontal lines present on the globe at various degrees are called **latitudes** and the vertical lines are called **longitudes**.



Globe

Maps: We use maps to show or represent different landforms and areas of the earth.

A map is a diagrammatic representation of an area of land or sea showing physical features or political divisions, cities, roads, etc. on a piece of paper.

Maps are available in small and big size. We can also hang a map on a wall. This is known as a **wall map**.



Map of India

Oceans: As we all know that our earth is called a blue planet because a large part of it is covered with water.

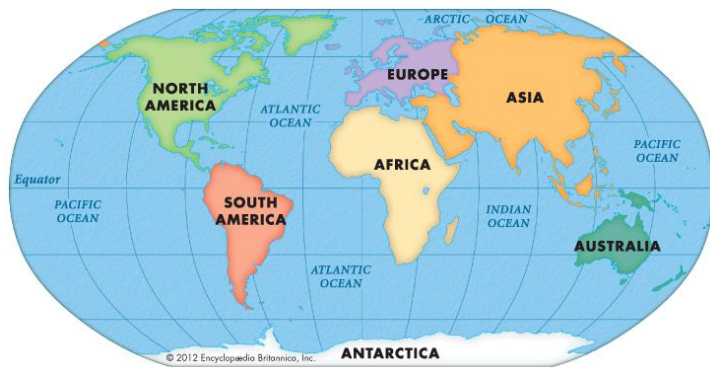
An Ocean is a large area of water between continents. Oceans are very big and they join smaller seas together. There are five major oceans. They are the Pacific Ocean, the Atlantic Ocean, the Indian Ocean, the Arctic Ocean and the Antarctic Ocean. **The Pacific Ocean is the largest ocean while the Arctic Ocean is the smallest ocean.**



Continents: A continent is commonly defined as a large land mass separated from other land masses by oceans. A continent is one of the Earth's seven main divisions of land. There are seven continents. They are Asia , Africa, Europe, North America, South America, Antarctica and Australia.

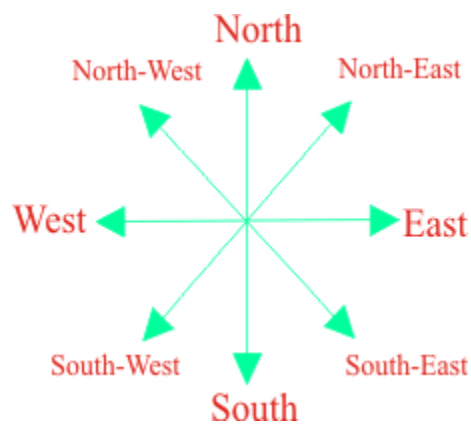
Australia is also known as Oceania.

Asia is the biggest and Australia is the smallest continent in the world.



Directions: The directions help us to find places and in reading the maps. There are four main Cardinal points. East, West , North and South. The four cardinal points are further divided into another four intermediate directions. They are:

- North-East
- North-West
- South-East
- South-West



A compass is an instrument which is used to find directions. It has a magnetic needle which always points towards the north.

Assessment Zone:

QI. Tick the correct option.

1. Asia
2. Pacific
3. North direction
4. Asia
5. Seven

QII. Fill in the blanks.

1. Oceans
2. Globe
3. Atlas
4. Five
5. Water bodies

QIII. Mark the statements as True or False.

1. True
2. False
3. True
4. False
5. False

QIV. Answer the following questions briefly.

1. A globe is a spherical model of the earth.
2. Asia is the largest and Australia is the smallest continent.
3. Arctic Ocean is the smallest ocean in the world.
4. It is believed that in the past, all continents were joined. This single land mass was called Pangaea.
5. A compass is used to find directions.

QV. Answer the following questions.

1. The horizontal lines present on the globe at various degrees are called latitudes and the vertical lines are called longitudes.
2. The four main directions are North, South, East and West.
The four main intermediate directions are North-east, North-west, South-east and South-west.
3. The various imaginary lines on the globe are Equator, Tropic of Cancer, Tropic of Capricorn, the Arctic Circle, the Antarctic Circle, latitudes and longitudes.

4. Oceans are huge water bodies which contain many seas. They are good for international trading because heavy and large loads of goods are imported or exported through ships which move on the oceans.
5. A globe is the model of the earth. It shows the political and physical features of the earth. It gives us a better understanding of the appearance of our planet.

3

Earth: Models and Features

Let's Learn

- ⊙ Globes
- ⊙ Maps
- ⊙ Continents
- ⊙ Oceans
- ⊙ Directions



The earth is very large and spherical in shape like a ball. We can see only a small part of it at a time. How do we find out what it contains and search for places on it? Well, there are two ways—globes and maps.

Globes
We cannot see the whole earth at a time. So, we need a model to view the whole of it. This model of the earth is called a **globe**. A globe shows the political and physical features of the earth.

When we observe a globe, we notice that the earth is round in shape but it is slightly flattened at both the poles and tilted on its axis. On the globe, we get to see the imaginary lines like the Equator in the centre, the Tropic of Cancer, the Tropic of Capricorn, the Arctic Circle and the Antarctic Circle. The horizontal lines present on the globe at various degrees are called **latitudes** and the vertical ones are called **longitudes**.

On the globe, **blue** coloured areas are waterbodies and the other coloured areas are land masses with various landforms. Land covers about 30% of the earth's surface area.

Brain Ticker
Why are globes tilted?

Infohive
A book of maps is called an **atlas**.



Globe

Maps
We use maps to show or represent

22

different landforms and areas of the earth.

A **map** is a diagrammatic representation of an area of land or sea showing physical features, political divisions, cities, roads, etc. on a piece of paper.

It can be big or small in size. We can also hang a map on a wall.

This is known as a **wall map**.

Brain Ticker
What is the art and science of making maps called?

Continents

The main, huge and continuous land mass is called a continent. There are **seven** continents. They are **Asia, Africa, Europe, North America, South America, Antarctica** and the smallest continent **Australia**. Continents are usually divided into several countries. India is a part of the largest continent, Asia.

Oceans

The earth is called **blue planet** because a large part of it is covered with

water. A large water body, which is bigger than a sea, is known as an ocean. Oceans cover big areas.

The waters of the oceans mix together. Each ocean contains partly smaller areas called seas. There are five major oceans. They

are the **Pacific Ocean, the Atlantic Ocean, the Indian Ocean, the Arctic Ocean and the Antarctic Ocean**.



Major continents and oceans of the world (Map)

Brain Ticker
Which is the southernmost continent?

The Pacific Ocean is the largest ocean while the Arctic Ocean is the smallest ocean.

Oceans are useful for international trading because most of the goods are imported or exported through ships.

Infohive

It is believed that in the past, all continents were joined. This Singular Land mass was called Pangaea. This broke into smaller pieces and formed seven continents.

Directions

There are four main **Cardinal Points** or main directions— **East, West, North** and **South** on the map. The topmost part of a map is always the north direction.

Directions help us to find places and in reading the maps. The four main cardinal points are divided



into another four intermediate directions. They are:

- **North-East** — between the North and the East
- **North-West** — between the North and the West
- **South-East** — between the South and the East
- **South-West** — between the South and the West

A **compass** is an instrument which is used to find directions. It has a magnetic needle which always points towards the North.



Recap

1. A globe is a spherical model of the earth.
2. Maps are flat drawings of the earth.
3. Continents are large and continuous land masses on the earth.
4. Oceans are very large waterbodies.
5. A compass helps us figure out the directions.

Assessment Zone

I. Tick (✓) the correct option.

- Which is the biggest continent?
a. Australia b. Asia
c. Europe d. North America
- The largest ocean is:
a. Pacific b. Indian
c. Atlantic d. Arctic
- The topmost part of a map is:
a. West direction b. South direction
c. North direction d. East direction
- India is a part of:
a. Asia b. Africa
c. Australia d. Europe
- There are _____ continents on the earth.
a. Two b. Eight
c. Ten d. Seven

II. Fill in the blanks.

- _____ are useful for international trading.
- _____ is flattened at the top and bottom.
- A book of maps is called an _____.
- There are _____ oceans on the earth.
- On the globe, blue coloured areas are _____.

III. Mark the statements as True (T) or False(F).

- We have four main directions.
- A globe is completely round.
- Maps are flat drawings of the earth on paper.
- Seas contain oceans.
- The earth is oval in shape.

IV. Answer the following questions briefly.

1. What is a globe?
2. Name the largest and smallest continents.
3. Name the smallest ocean.
4. What do you know about Pangaea?
5. Which instrument is used to find directions?

V. Answer the following questions.

1. What are latitudes and longitudes?
2. Give the names of four main and four intermediate directions.
3. Name all the imaginary lines on the globe.
4. What are oceans? How do they help in trading?
5. How is the globe useful to us?



Activity Zone

Think it over

VI. What are 2-D and 3-D maps?

VII.



Discuss in groups how you would help a friend to find the way to your school. Pick any imaginary point where your friend is standing.

Project Work

VIII. Taking the bulletin board of your class as a canvas for map, make all the continents with guidance from your teacher. To mark the continents you can use board pins/bindis/chalks, etc.