

**Chapter-08**  
**The Universe**  
**Lecture- 02, Class Date: 14/06/2020**

## **Motions of earth**

### **Orbit:**

The path that Earth and other planets move around the sun is called orbit.

### **Revolution:**

The orbital motion of the earth around the sun is called revolution.

### **Axis:**

The imaginary line through the center of the earth is called axis. Earth axis go through the north and south pole.

### **Earth's Rotation:**

The spinning motion of the earth on its axis is called Earth's rotation.

## **Day and Night:**

The part of the earth that is facing the sun has day time. The part of the earth that is facing away from the sun has night.

### **Sunrise and Sunsets:**

The sun seems rising in the east in the morning, and then sets in the west as the day ends. This is because the earth is spinning on its axis from west to east. As the earth rotates, the sun appears to move from east to west across the sky.

## **Season Change:**

We have six seasons. They are:

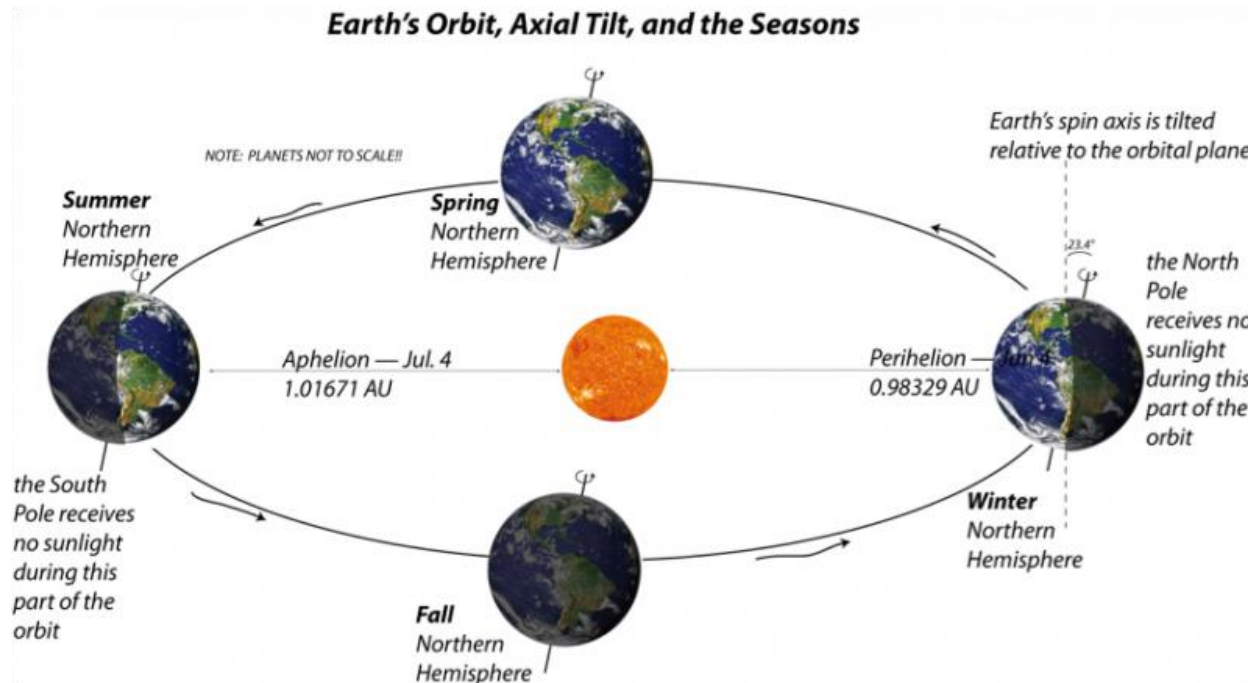
- a. The summer season    b. The rainy season    c. The Autumn season  
d. The late Autumn season    e. The winter Season    f. The spring season

### **Summer:**

When the northern hemisphere tilts toward the sun, it is summer there. In summer, the sunlight shines more directly on the northern half of the earth giving more energy. This causes the temperatures to rise and the period of day time to be longer.

### **Winter:**

When the northern hemisphere tilts away from the sun it is winter there. In winter, sunlight hits this part of the earth less directly. The temperature is lower, and the period of day time is shorter.



## **Related questions from this chapter**

*Q 1: What are the two motion of earth?*

**Ans:**

The two motion of earth are:

- a. Diurnal Motion
- b. Annual Motion

*Q 2: What is called orbit?*

**Ans:**

The path that earth and other planets move around the sun is called orbit.

*Q 3: What is called revolution? How long does the earth take to complete one trip around the sun?*

Or

*What is called the annual motion of the earth?*

**Ans:** The orbital motion of the earth around the sun is called revolution. Revolution motion takes 365 days 6 hours for the earth to complete one trip around the sun. It is also known as the annual motion of the earth.

*Q 4: What is called earth rotation?*

*Or*

*What is called the Diurnal motion?*

**Ans:**

While revolving the sun, earth also spins or rotates on its axis like a spinning top. The spinning motion of the earth or its axis is called earth's rotation. It is also known as diurnal motion of the earth

*Q 5: What is the accurate time of earth's rotation?*

*Or,*

*How can we measure a day?*

**Ans:**

Earth's rotation takes 23 hour and 56 minutes for the earth to complete one full rotation on its axis, which is measured as on day.

*Q 6: What is called axis?*

**Ans:**

An axis is an imaginary line through the center of an object. Earth's axis goes through the center of an object. Earth's axis is tilted at some degree.

*Q 7: What causes day and night?*

**Ans:**

Earth's diurnal motion causes day and night. It takes 24 hours to complete one full rotation on its axis.

*Q 8: What is called day?*

**Ans:**

The part of the earth that is facing the sun is called day.

*Q 9: What is called night?*

**Ans:**

The part of the earth that is facing away from the sun is called night.

*Q 10: Write three sentences of why the sun seems to move from east to west across the sky?*

**Ans:**

The sun seems rising in the east in the morning, and then sets in the west as the day ends. This is because the earth is spinning on its axis from west to east. As Earth rotates, the sun appears to move from east to west across the sky

*Q12: How many seasons we have? What are they?*

**Ans:**

We have six seasons in a year. They are: Summer, Rainy, Autumn, Late Autumn, Winter, Spring.

*Q13: Why we have different seasons?*

**Ans:**

The earth revolves around the sun, different parts of the earth tilted toward or away from the sun. So, we can say that the tilted of earth's axis and its orbit around the sun causes seasons. When the northern hemisphere tilts toward the sun, it is summer there. In summer, the sunlight shines more directly on the northern half of the earth giving more energy. This causes the temperatures to rise and the period of day time to be longer. Opposite season occurs in the southern hemisphere and it is winter there.

*Q14: How does temperature rises in the summer?*

**Ans:**

In summer the northern hemisphere tilts toward the sun and the sunlight shines more directly on the northern half of the earth giving more energy. This causes the temperatures to raise the period of daytime to be longer.

*Q15: How does temperature decrease in the winter?*

**Ans:**

In winter the northern hemisphere tilts away from the sun so the sunlight hits this part of the earth less directly. As a result, the temperature is lower, and the period of day time is shorter by the period of night gets longer.

## Sample Board Question

**Q1: How many kinds of earth's motion are there? What is earth's motion? Write three sentences of why the sun seems to move from east to west across the sky.**

**Answer:**

**Types of earth's motion:**

There are two types of earth's motion.

a. Revolution

b. Rotation

**Earth's Rotation:**

The spinning motion of the earth on its axis is called earth's rotation. It is also known as diurnal motion of the earth.

**The sun seems to move from east to west across the sky:**

The sun seems rising in the east in the morning, and then sets in the west as the day ends. This is because the earth is spinning on its axis from west to east. As the earth rotates, the sun appears to move from east to west across the sky.