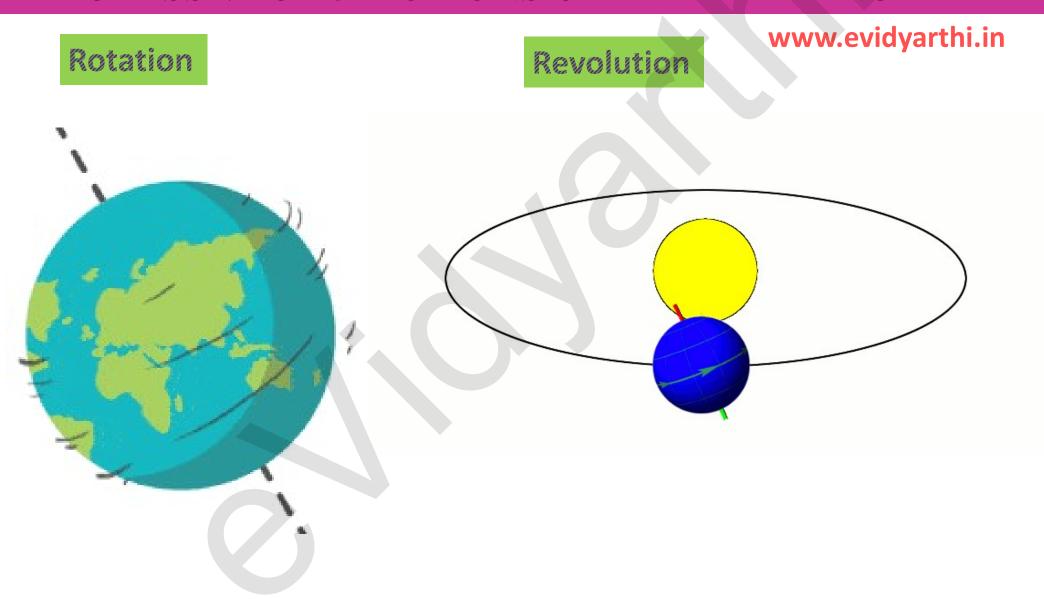
www.evidyarthi.in

CHAPTER - 3

MOTIONS OF THE EARTH



www.evidyarthi.in

- Motions of the Earth
 - **□** Rotation

Rotation

- **➤** Orbital plane
- > Circle of illumination

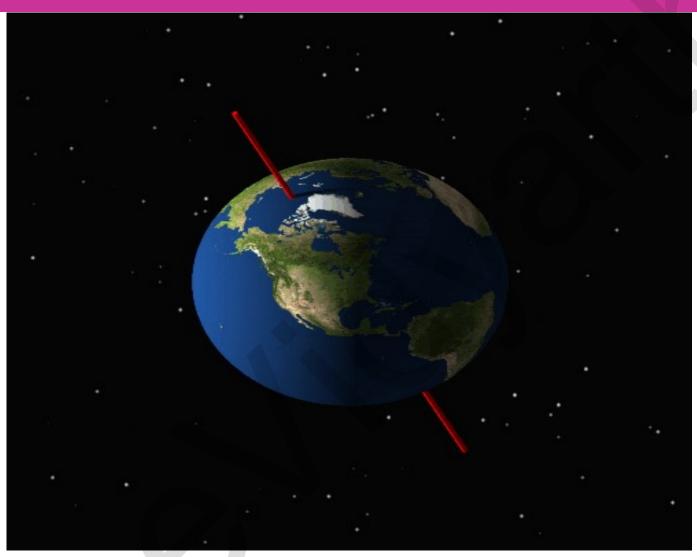
www.evidyarthi.in

- ☐ Revolution
 - > leap year
 - > Elliptical orbit
 - > Summer Solstice
 - **➤ Winter Solstice**
 - > Equinox

Revolution

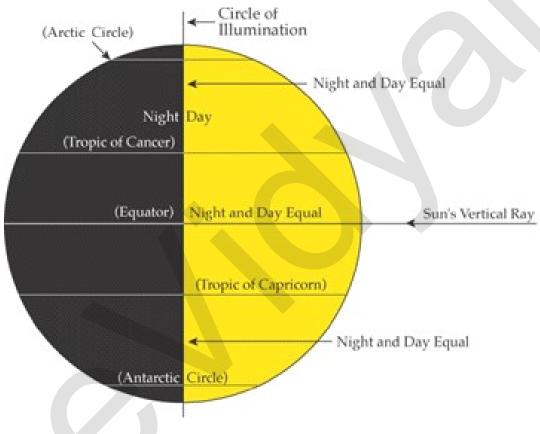
■ Rotation

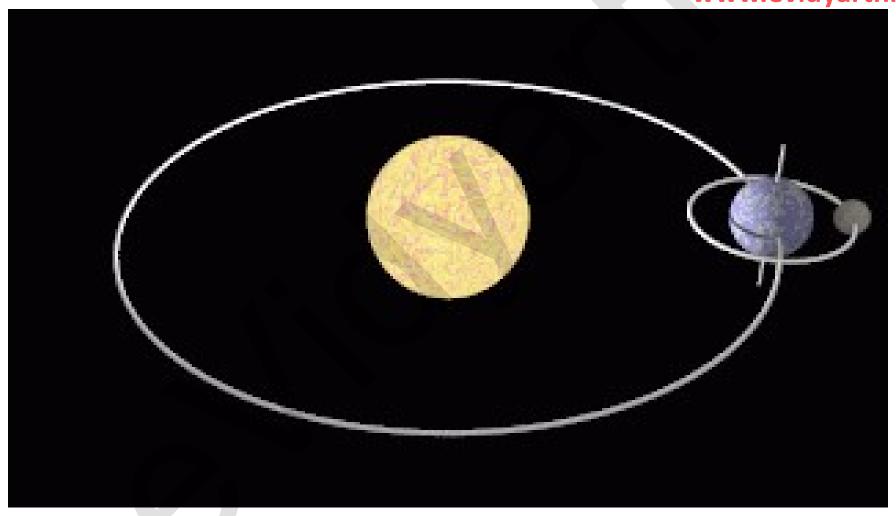
- Rotation is the movement of the Earth, on its axis.
- The axis of the Earth, which is an imaginary line, makes an angle of 66/2° with its orbital plane.
- The portion facing the Sun experiences day, while the other half away from the Sun experiences night.
- The Earth takes about 24 hrs. to complete one rotation around its axis, it is known as earth day.



www.evidyarthi.in the

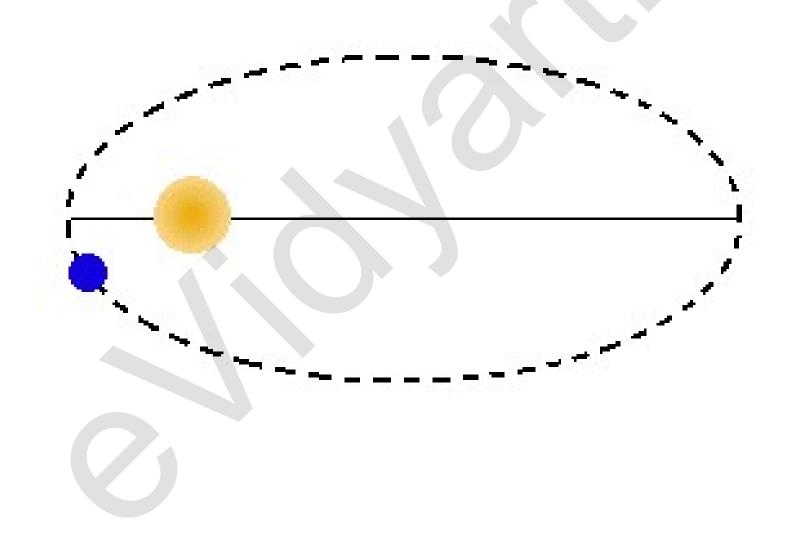
■ The circle that divides the day from night on the globe is called the circle of illumination.



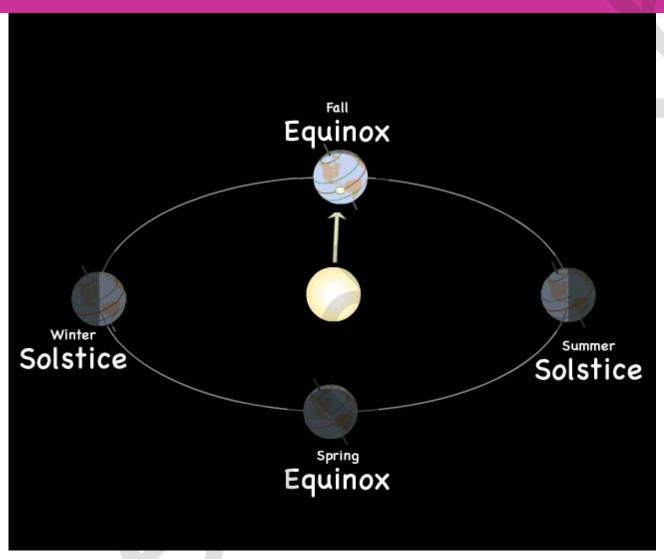


- ☐ Revolution
- The movement of the Earth around the Sun in a fixed path or orbit is called **revolution**.
- Earth takes 365 1/4 days to revolve around the Sun.
- Every fourth year, February is of 29 days instead of 28 days. Such a year with 366 days is called a leap year.





- Earth is going around the Sun in an ellipticalorbit.
- Seasons change due to change in the position of the Earth around the Sun.



www.evidyarthi.in

solstice

- summer solstice is the position of the Earth when the Northern Hemisphere has the longest day and the shortest night. It occurs on 21st June.
- In the **Southern Hemisphere**, it is winter season at this time. The days are short and the nights are long.

- Winter Solstice is the position of the earth when Southern Hemisphere has long days and shorter nights.
- In the Northern Hemisphere, the days are short and the nights are long. It occurs on 22nd December.

www.evidyarthi.in

equinox

On 21st March and September 23rd, direct rays of the sun fall on the equator and the whole earth experiences equal days and equal nights. This is called an equinox.