VSA
A Real English Medium School

VIDYA SHREE ACADEMY
SR. SEC. SCHOOL

An English Medium Co.Ed. School | Science & Commerce

Little Steps
Pre Primary wing of VSA

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Subject- S.S.T Class- 6 Topic- Motions of Earth

Learn and Write

D. Long Answers Questions

1. What is rotation? Discuss its effects.

2. What is revolution? Write down its effects.

3. Define the Earth's orbit and explain the inclination of the Earth's axis.

4. What are solstices? Explain the winter and summer solstices.

D. 1. Rotation is the movement of the Earth on its own axis. Its effects are:

(a) It causes day and night. A day consists of 24 hours.

(b) The concept of direction is based on sunrise and sunset due to the apparent movement of the Earth.

(c) Bulging of the Earth at the Equator and flattening at the poles are caused due to rotation.

(d) Movement of winds, oceans, currents and tides are also caused due to it.

2. Revolution is the movement of the Earth on an inclined axis around the Sun. Its effects are:

(a) It causes the cycle of seasons.

(b) It causes the difference in the duration of day and night.

(c) It is responsible for the difference in distribution of heat over the surface of the Earth.

3. Earth's orbit is the fixed path on which it moves around the Sun. The Earth's axis is neither perpendicular to the direction of the Sun's rays nor to the plane of the Earth's orbit. It is inclined from the vertical line at an angle of 23 ½°. It makes an angle of 66 ½° with its orbital plane which is formed by the orbit of the Earth around the Sun. The Earth always remains tilted to one side while moving around the Sun. This tilt is called the 'inclination of the Earth's axis'.

4. Solstices are the position of the Earth when the midday Sun shines vertically overhead at the Tropic of Cancer or the Tropic of Capricorn and the duration of the day is longest in the hemisphere.

   (a) Winter solstice occurs on 22 December when the sun's rays fall vertically over the Tropic of Capricorn. Therefore, it is summer season in the Southern Hemisphere where the places experience the longest day and the shortest night. The Northern hemisphere, which is turned away from the Sun, receives slanting rays of the Sun and the days are short and the nights long. It is the winter season in the Northern Hemisphere.

   (b) Summer solstice occurs on 21 June when the Sun's rays fall vertically over the Tropic of Cancer . Therefore, it is summer season in the Northern hemisphere where the places experience the longest day and the shortest night. The Southern hemisphere, which is turned away from the Sun, receives slanting rays of the Sun. The duration of daylight is short and it is winter season in the Southern Hemisphere.