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Started notes in Class on: _____

Ls-3 Movements of the Earth

A. PRE ACTIVITY :

ROTATION MEANS "TO SPIN." 1 COMPLETE ROTATION = 24 HOURS OR 1 DAY

REVOLUTION MEANS "TO GO AROUND SOMETHING." 1 COMPLETE REVOLUTION = 365 DAYS OR 12 MONTHS OR 1 YEAR

B. KEY WORDS:

twilight, disappearance, spinning, revolution, elliptical, circular, autumn, hemisphere, solstice, equinoxes, temperature, orbit, daylight, horizon

C. SHORT ANSWER QUESTION:

1. What happens when the Earth rotates?

Ans1. When the Earth rotates on its axis, the portion that is towards the Sun keeps changing. That part of the Earth which is towards the Sun gets light and experiences daylight while the part that is away from the Sun is dark and experiences night. Thus, the rotation of Earth on its axis causes day and night.

2. What is the Earth's axis?

Ans2. The Earth's axis is an imaginary line on which the Earth rotates.

3. What are the equinoxes?

Ans3. On March 21st and September 23rd the length of the day is equal to that of the night. On these days the North Pole and the South Pole are neither tilted towards the Sun nor away from it; the Sun rays fall directly on the Equator. These days are called equinoxes and they herald the arrival of spring and autumn according to the time of the year during which they occur. In the Northern Hemisphere, the spring equinox is on March 21 while the autumn equinox is on September 23.

D. LONG ANSWER QUESTIONS:

1. Describe what happens when the Earth goes around the Sun?

Ans1. The Earth's revolution around the Sun is responsible for different seasons. The Earth is always tilted to one side when it moves around the Sun. So, when the North pole tilts towards Sun, it's summer in the Northern hemisphere and winter in the Southern hemisphere. During its movement around the Sun, there is a certain time period when neither the North Pole nor the South Pole is tilted towards it during this time Autumn and Spring seasons are experienced.

2. Describe the solstices and when they occur.

Ans2. During its revolution, if the Earth's North Pole is tilted towards the Sun, then the Northern Hemisphere experiences summer. This happens during the months of May and June. The southern hemisphere being tilted away from the Sun will have winter. As it moves around the Sun, there will come a time when the South Pole will be tilted towards the Sun. At this time, the Southern Hemisphere will experience summer, while the Northern Hemisphere has winter. This happens during the months of November, December and January.

3. How are season important for us?

Ans3. Different types of crops and plants grow in different seasons. Some crops require more heat while some crops grow best when it is cold. Humans and animals get part of their food requirements from plants and crops. We eat food according to the seasons. The rainy season provides us with water, filling our lakes and rivers. This is necessary for the survival of all living things on Earth. Our habits are formed by the changing of the seasons – • In summer we wear light clothes made of cotton • In winter we wear woollen clothes. Some birds and marine species migrate or travel a long distance from one place to the other depending on the seasons. Some animals adapt to the extreme climatic conditions by going for a long sleep called hibernation.

4. Why are the days and nights not equal?

Ans4. The lengths of the day and night are not uniform throughout the year and this is due to the way the Earth's axis leans to the left. This results in longer daylight hours in summer and lesser hours of daylight in winter.

5. If you are living on the north pole, describe your experience of different seasons/climates.

Ans5. Though the poles lean towards the Sun at different times during the year, they do not get the direct rays of the Sun, and they reach them only at an angle. In winter, one cannot see the Sun at all here, so that the days are just like the nights, cold and dark. At the Poles, for six months in a year there is daylight and for the next six months it is dark. Norway in Northern Europe is called the 'Land of the Midnight Sun' because here daylight is seen even at midnight during summers.

F) POST ACTIVITY:

Draw and label the diagram of Rotation of the Earth given on textbook pg no 277

SUBJECT TEACHER

HOD

COORDINATOR

PRINCIPAL

