

# 3

## Movements of the Earth

### Lesson Plan

#### Contents

- ▶ An overview of the movements of the Earth
- ▶ Effects of Rotation
- ▶ Effects of Revolution
- ▶ Seasons

#### Objectives

- ▶ To understand the two major movements of the Earth—rotation and revolution.
- ▶ To learn what the effects of rotation are—shape of the Earth; day/night; tides and winds.
- ▶ To know about the effects of revolution—the seasons.

#### Teacher's Aids

- ▶ Globe
- ▶ Pictures, atlas and wall maps
- ▶ Blackboard

#### Tips for Teacher

- ▶ Explain the difference between the rotation and the revolution of the Earth using different sized balls.
- ▶ Use the internet and films to help the students understand the change of seasons in the Northern and Southern hemispheres.
- ▶ Use role play by students—as day and night; as seasons, etc.
- ▶ Students should be encouraged to know places, locations and their placement on the maps.

#### Background and Reading

- ▶ Read the lesson aloud and explain, sharing the aids, etc., pausing to examine and explain the data in the diagrams.
- ▶ Particularly focus on the diagrams and let the students make charts in groups.

#### Rotation of the Earth

- ▶ Explain what rotation of the Earth is using a globe.
- ▶ Read, discuss and explain each of the effects of rotation, using the globe, the diagrams, and the blackboard.
- ▶ Explain how day and night, tides and winds are affected by the rotation; also how the Northern and Southern hemispheres are drawn closer and then taken further away from the Sun.

### Revolution of the Earth

- ▶ Explain some of the terms that are significant in the chapter: perihelion; aphelion.
- ▶ How the revolution creates the period of 365 days/ 1 year.
- ▶ Explain the seasons as a consequence of the revolution of the Earth. Use the globe, the diagrams and the blackboard to explain the phenomenon.
- ▶ Explain the reasons for the difference in the seasonal timings in the Northern and the Southern hemispheres.
- ▶ Explain solstices and equinoxes once again using the aids.

## Assessment Corner

### Oral Assignment

- A. Ask for answers at random from the students. Confirm the right answers.

The students may write down the answers if they like.

### Written Assignment

- B–F. The teacher has two options—(i) Either do these exercises orally first and then ask the students to write them down. OR (ii) Ask students to write the answers on their own. Then the teacher can announce the correct answers and students can ask their partners to cross check them.

In either case, the answers can be written as homework and the teacher can check them in the class.

### Think Tank

- G. **HOTS questions:** Discuss the three questions in class and let students write the answers to G and H as homework. Teacher should assess individual work.