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## Parallels and Meridians

### Lesson Plan

#### Contents

- ▶ The globe as a model of the Earth
- ▶ What Parallels are, their relationship to the Equator, and why they are used: the concept of hemispheres.
- ▶ What Meridians are, their relationship to the Prime Meridian and why they are used: the concept of time zones.

#### Objectives

- ▶ Learning about Parallels and Meridians
- ▶ Bifurcation of Earth into Hemispheres by the Equator
- ▶ How Meridians are drawn from the North to the South Poles
- ▶ The degrees of Parallels and Meridians
- ▶ The relationship of time to the Meridians: GMT
- ▶ The need for a grid to locate places

#### Teacher's Aids

- ▶ Globe, blackboard, beach ball, orange, stick, etc., to depict in the most child-friendly terms how the Earth is spherical and the concepts of grid. Beach balls have meridian-like patches.
- ▶ A map of the world showing longitudes, latitudes, poles, axis, etc.

#### Tips for Teacher

- ▶ Use the ball, the fruit, the globe and the blackboard to practically show the shape of the Earth, the divisions on a grid.
- ▶ Relate what they learn from the globe to the maps in their atlases.
- ▶ Explain the purpose of the axis: what is meant by rotation and revolution. This is a preliminary step to understanding climate in a later lesson.

### /// Gear Up and Background

- ▶ Have fun breaking the code and use it for other words also like EARTH, PARALLEL, MERIDIAN, AXIS, etc., and even some of the students' names.
- ▶ The word given is: GLOBE.
- ▶ Explain what the two movements of rotation and revolution are, using the students to 'rotate' in one place and 'revolve' around each other. Show them a small ball speared on a stick or thick wire to show how the axis works. Then show them the globe.

### /// Parallels and Meridians

- ▶ Read aloud and explain Parallels and Meridians using the blackboard, globe and atlas.
- ▶ Explain how the Earth is bisected into two Hemispheres by the Equator, the longest Parallel.
- ▶ Talk to the students about the Hemispheres, the movement of the sun, the moon, the Earth around the sun.
- ▶ Explain how the Meridians are drawn from the North to South Poles, what the Greenwich Meridian, Greenwich Mean Time are, etc. Tell them how we calculate time when we travel through different time zones.

### /// Locating Places on the Globe

- ▶ Explain how to locate countries, land features, cities, etc., on the globe. Use the atlas also and show students how the grids and index are used for finding places.
- ▶ What is India's location on the Globe?