

UNIT

1

Lithosphere – I Endogenetic Processes

Learning Objectives

- To know about the spheres of the Earth
- To illustrate the internal structure of the Earth
- To study the rock types and its cycle
- To explain the internal processes of the Earth
- To understand the processes of Earthquakes and volcanoes



Introduction

The Earth is a unique planet of the Solar family. The Earth is composed of four spheres namely, the lithosphere, the atmosphere, the hydrosphere and the biosphere. This lesson focuses on the internal processes of the Earth. The sequence of lessons generally follows the spheres of the Earth system in a comprehensive manner.

Have you ever wondered what our Earth is made up of? Or what lies underneath the Earth's surface?

“The Earth can physically be described as a ball of rock (the lithosphere), partly covered by water (the hydrosphere) and wrapped in an envelope of air (the atmosphere). To these three physical zones it is convenient to add a biological zone which includes all the living organisms (the biosphere).”

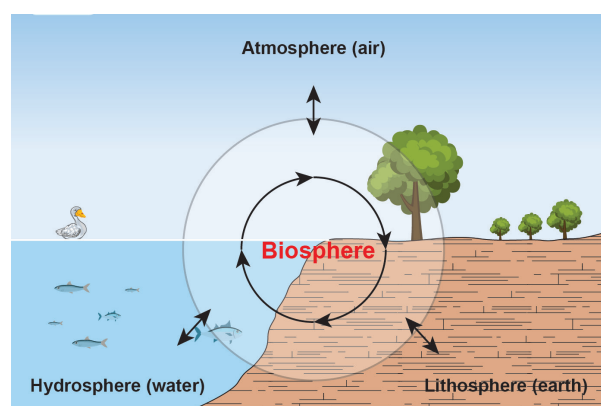
Arthur Holmes

1.1 Spheres of the Earth

Earth's surface is a vast area of 510 million sq.km, where four spheres of the Earth interact. The abiotic spheres are the lithosphere, atmosphere and hydrosphere. The biotic sphere is the biosphere. Together, these spheres constitute the planet, Earth.

1.2 Structure of the Earth

The outer surface and inner core of the Earth are totally different in their nature and structure. The structure of the Earth's interior is divided into three layers namely **the crust, the mantle and the core.**



Spheres of the Earth