

NCERT Solutions for Class 7 Social Science Geography

Chapter 2 – Inside Our Earth PDF & Important Questions

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NCERT Solutions for Class 7 Social Science Geography Chapter 2: Embarking on a geological journey deep into the layers of our planet, NCERT's Class 7 Social Science Geography Chapter 2 – "Inside Our Earth," offers young minds a treasure trove of knowledge waiting to be unearthed.

In the world of academia, having the right resources is akin to possessing a treasure map, guiding young minds through the caverns of knowledge and discovery. This comprehensive blog post is your academic compass, designed to navigate through the NCERT Solutions for Class 7 Social Science Geography Chapter 2 – 'Inside Our Earth'.

NCERT Solutions for Class 7 Social Science Geography Chapter 2 Overview

Free PDF downloads of NCERT Solutions for Class 7 Geography Chapter 2 are available, aiding students in comprehending the dynamic nature of our planet. Earth undergoes continuous changes both internally and externally. Its interior comprises the crust, mantle, and core.

The Earth's crust is composed of diverse rock types, including igneous, sedimentary, and metamorphic rocks. Minerals, possessing specific physical properties and definite chemical compositions, occur naturally.

Serving as a reliable tool, NCERT Solutions for Class 7 Geography empower students to tackle questions from NCERT textbooks confidently.

NCERT Solutions for Class 7 Social Science Geography Chapter 2 Inside Our Earth

Chapter 2 of Class 7 Social Science Geography is titled "Inside Our Earth." Here are the key topics covered in this chapter:

1) Layers of the Earth:

- The Earth is composed of various layers, including the crust, mantle, and core.
- These layers have distinct compositions and characteristics.

2) The Crust:

- The outermost layer of the Earth is called the crust.
- It is relatively thin compared to the other layers.

3) Types of Rocks:

- The Earth's crust is made up of different types of rocks.
- Igneous rocks, sedimentary rocks, and metamorphic rocks are the three major types.

4) Minerals:

- Minerals are naturally occurring substances with specific physical properties and definite chemical compositions.
- They are essential components of rocks.

5) Types of Rocks and Minerals:

- The chapter discusses various rocks and minerals found in the Earth's crust.

6) Earthquakes and Volcanoes:

- The movement of the Earth's plates can lead to earthquakes and volcanic activities.
- The chapter explores the causes and consequences of these phenomena.

7) Interior of the Earth:

- The chapter provides insights into the composition and structure of the Earth's interior.

8) Formation of Soil:

- The interaction of rocks, climate, and vegetation influences the formation of soil.
- Different layers of soil have distinct characteristics.

These key topics in Chapter 2 - "Inside Our Earth" of Class 7 Social Science Geography aim to enhance students' understanding of the Earth's composition, geological processes, and the significance of rocks and minerals. The chapter provides a foundation for comprehending the dynamic nature of the Earth's interior.

NCERT Solutions for Class 7 Social Science Geography Chapter 2 Imp Ques and Ans

Below are some important questions and their answers for Class 7 Social Science Geography Chapter 2 - "Inside Our Earth":

Question 1: What are the three main layers of the Earth? Explain briefly.

Answer: The three main layers of the Earth are the crust, mantle, and core. The crust is the outermost layer and is relatively thin. Beneath the crust is the mantle, which is semi-solid and contains rocks that can flow slowly. The core is the innermost layer and is primarily composed of metals, particularly iron and nickel.

Question 2: Differentiate between igneous, sedimentary, and metamorphic rocks.

Answer:

- **Igneous Rocks:** Formed from the cooling and solidification of molten magma. Examples include granite and basalt.
- **Sedimentary Rocks:** Formed by the accumulation and compression of sediments. Examples include limestone and sandstone.
- **Metamorphic Rocks:** Formed from the alteration of existing rocks due to heat and pressure. Examples include marble and slate.

Question 3: How are minerals different from rocks? Provide examples.

Answer: Minerals are naturally occurring substances with specific physical properties and definite chemical compositions. Rocks, on the other hand, are aggregates of minerals. For example, quartz is a mineral, while granite is a rock made up of minerals such as quartz, feldspar, and mica.

Question 4: Explain the process of the formation of soil.

Answer: Soil is formed through the weathering of rocks. Over time, rocks break down into smaller particles due to physical, chemical, and biological processes. These particles mix with organic matter from decaying plants and animals. The type of rock, climate, and vegetation influence the characteristics of the soil.

Question 5: What causes earthquakes and volcanic activities?

Answer: Earthquakes are caused by the sudden release of energy in the Earth's crust, resulting in the movement of plates. Volcanic activities occur when magma, gases, and ash erupt from the Earth's interior. Both phenomena are linked to the movement of tectonic plates.

Question 6: Describe the composition and characteristics of the Earth's core.

Answer: The Earth's core is primarily composed of iron and nickel. It is divided into the outer core and the inner core. The outer core is liquid, while the inner core is solid. The core plays a crucial role in generating the Earth's magnetic field.

Question 7: How do scientists study the interior of the Earth?

Answer: Scientists study the interior of the Earth through seismic waves generated by earthquakes. These waves travel through the Earth and provide valuable information about its composition and structure. The study of seismic waves helps scientists understand the different layers and properties of the Earth's interior.

Question 8: Explain the significance of the Earth's magnetic field.

Answer: The Earth's magnetic field is generated by the movement of molten iron and nickel in its outer core. This magnetic field is crucial as it acts like a protective shield, deflecting harmful solar winds and cosmic rays. It also plays a vital role in navigation, with compass needles aligning along the magnetic field lines.

Question 9: What are the major types of plate movements and their effects?

Answer: The major types of plate movements are divergent boundaries (plates move apart), convergent boundaries (plates collide), and transform boundaries (plates slide past each other). Divergent boundaries can lead to the formation of new crust, convergent boundaries can result in the creation of mountain ranges or subduction zones, and transform boundaries can cause earthquakes.

Question 10: Discuss the importance of minerals in daily life.

Answer: Minerals have immense importance in daily life. They are used in various industries and products. For example, iron and aluminum are essential for constructing buildings and vehicles, calcium is crucial for bone health, and quartz is used in electronic devices. The cosmetics industry, agriculture, and manufacturing rely heavily on minerals.

Question 11: How does soil erosion impact the environment?

Answer: Soil erosion, caused by factors like deforestation and improper agricultural practices, can lead to the loss of fertile topsoil. This negatively impacts plant growth, reduces agricultural productivity, and contributes to landslides and sedimentation in rivers.

Soil erosion is a significant environmental concern that affects ecosystems and human activities.

These questions and answers cover important concepts from Chapter 2 - "Inside Our Earth" of Class 7 Social Science Geography, providing a comprehensive understanding of the Earth's composition and geological processes.

NCERT Solutions for Class 7 Social Science Geography Chapter 2

Short Long Ques and Ans

Let's dive into a mix of short and long questions along with their answers for Chapter 2 - "Inside Our Earth" from Class 7 Social Science Geography.

Short Answer Questions:

Q1: What are seismic waves?

Answer: Seismic waves are vibrations or waves that travel through the Earth's interior, primarily generated by earthquakes or volcanic activity.

Q2: Name the three layers of the Earth based on composition.

Answer: The three layers of the Earth based on composition are the crust, mantle, and core.

Q3: Define minerals.

Answer: Minerals are naturally occurring substances with specific chemical compositions and physical properties.

Q4: Explain the term 'plate tectonics.'

Answer: Plate tectonics is the theory that describes the movement and interaction of large sections of the Earth's lithosphere (plates) on the more fluid asthenosphere beneath them.

Q5: How is soil formed?

Answer: Soil is formed through the weathering of rocks, which involves the breakdown of rocks into smaller particles by physical, chemical, or biological processes.

Q6: What is the difference between magma and lava?

Answer: Magma is molten rock beneath the Earth's surface, while lava is magma that has erupted onto the Earth's surface.

Q7: Name two types of rocks and how they are formed.

Answer: Igneous rocks are formed from the cooling and solidification of magma, while sedimentary rocks are formed from the accumulation and cementation of sediments.

Q8: How do earthquakes contribute to the formation of mountains?

Answer: Earthquakes are often associated with tectonic plate movements. When plates converge, they can uplift the Earth's crust, leading to the formation of mountain ranges.

Q9: Explain the term 'convection currents' in the mantle.

Answer: Convection currents in the mantle are circular movements of semi-fluid rock caused by variations in temperature. Hot material rises, cools near the surface, and descends again, creating a continuous cycle.

Long Answer Questions:

Q1: Discuss the different layers of the Earth and their characteristics.

Answer: The Earth consists of three main layers - the crust, mantle, and core. The crust is the outermost layer, composed of solid rocks. The mantle is semi-solid and responsible for convection currents driving plate tectonics. The core, divided into outer and inner parts, is primarily composed of iron and nickel. The outer core is molten, contributing to the Earth's magnetic field.

Q2: Explain how earthquakes occur and their impact on the Earth's surface.

Answer: Earthquakes occur due to the sudden release of energy in the Earth's crust, leading to seismic waves. This release of energy is often associated with the movement of tectonic plates. The impact of earthquakes includes ground shaking, surface rupture, and potential damage to structures, landscapes, and ecosystems.

Q3: Describe the process of soil erosion and its consequences.

Answer: Soil erosion is the removal of the topsoil layer by natural elements like wind and water. Improper land use, deforestation, and poor agricultural practices contribute to erosion. Consequences include reduced soil fertility, loss of arable land, increased sedimentation in water bodies, and environmental degradation.

Q4: Discuss the significance of minerals in various industries.

Answer: Minerals play a crucial role in industries such as construction, manufacturing, agriculture, and technology. Iron and aluminum are used in construction, quartz in electronics, and minerals like phosphates and potash are vital for agriculture.

Q5: Explain the concept of plate boundaries and their consequences.

Answer: Plate boundaries are regions where tectonic plates interact. Divergent boundaries result in new crust formation, convergent boundaries lead to features like mountains and subduction zones, and transform boundaries cause earthquakes. These interactions shape the Earth's surface and contribute to geological processes.

Q6: Describe the rock cycle and its significance in Earth's processes.

Answer: The rock cycle involves the continuous transformation of rocks between igneous, sedimentary, and metamorphic forms. It plays a crucial role in recycling Earth's materials, contributing to geological processes like mountain-building and soil formation.

Q7: Discuss the impact of soil erosion on agriculture and ecosystems.

Answer: Soil erosion leads to the loss of fertile topsoil, negatively impacting crop productivity. It also affects ecosystems by disrupting nutrient cycles, contributing to sedimentation in water bodies, and causing habitat degradation.

Q8: Elaborate on the role of minerals in sustaining life on Earth.

Answer: Minerals provide essential nutrients for plant and animal life. They are integral to metabolic processes, bone formation, and overall growth and development in living organisms.

Q9: Explain the formation of different types of rocks with examples.

Answer: Igneous rocks form from cooling magma (e.g., granite), sedimentary rocks from sediment accumulation (e.g., limestone), and metamorphic rocks from existing rocks undergoing changes due to heat and pressure (e.g., marble).

Q10: How does the Earth's magnetic field influence navigation?

Answer: The Earth's magnetic field helps in navigation by providing a reference for compass needles. Compasses align with the magnetic field lines, allowing travelers to determine cardinal directions.

These questions cover a range of topics from the chapter, allowing students to explore the layers of the Earth, seismic activities, the importance of minerals, and the environmental impact of geological processes.

NCERT Solutions for Class 7 Social Science Geography Chapter 2 Exercise Questions

1) How are extrusive and intrusive rocks formed?

Extrusive rocks are formed when molten lava erupts from volcanoes, reaches the Earth's surface, and rapidly cools down, solidifying into rock. Basalt is an example of an extrusive rock.

In contrast, intrusive rocks form when molten lava solidifies deep inside the Earth's crust. The rocks formed through this process are called intrusive rocks, and granite is an example.

2) What do you mean by a rock cycle?

The rock cycle refers to the continuous process of transformation of rocks from one type to another due to changes in specific conditions. Rocks undergo a cyclic journey involving various geological processes, including weathering, erosion, sedimentation, and metamorphism, contributing to the dynamic nature of Earth's crust.

3) What are the uses of rocks?

Rocks serve various purposes, including:

- **Road Construction:** Rocks are crucial in constructing roads.
- **Building Material:** They are used in the construction of houses and buildings.
- **Recreation:** Small stones from rocks are used in different games by children.
- **Fertilizers:** Some rocks contribute to the production of fertilizers.

4) What are metamorphic rocks?

Metamorphic rocks are formed when pre-existing rocks, whether igneous or sedimentary, undergo changes in response to high heat and pressure. These changes result in the formation of metamorphic rocks with distinct characteristics.

5) Tick the correct answer.

(i) The rock, which is made up of molten magma, is

- (a) **Igneous**

(ii) The innermost layer of the earth is

- (b) **Core**

(iii) Gold, petroleum, and coal are examples of

- (b) **Minerals**

(iv) Rocks which contain fossils are

- (a) **Sedimentary rocks**

(v) The thinnest layer of the earth is

- (a) **Crust**

6) Match the following.

(i) Core – (e) **Innermost layer**

(ii) Minerals – (d) **Has a definite chemical composition**

(iii) Rocks – (b) **Used for roads and buildings**

(iv) Clay – (f) **Changes into slate**

(v) Sial – (c) **Made of silicon and alumina**

7) Give reasons.

(i) We cannot go to the centre of the earth.

- **Reason:** The temperature and pressure at the centre of the earth are extremely high, causing rocks to melt. Human beings cannot survive under such conditions.

(ii) Sedimentary rocks are formed from sediments.

- **Reason:** Sedimentary rocks form through the accumulation, compression, and hardening of sediments transported by natural forces like wind and water.
- (iii) Limestone is changed into marble.
- **Reason:** Under heat and pressure, limestone, a sedimentary rock, undergoes metamorphism and transforms into marble, a metamorphic rock.

NCERT Solutions for Class 7 Social Science Geography Chapter 2 PDF Download

NCERT Solutions for Class 7 Social Science Geography Chapter 2 PDF serve as a pivotal resource in addressing the intricate topics covered throughout the chapter. These downloadable PDF solutions are a testament to the commitment of providing accessible and comprehensive educational material for students striving for academic success.

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NCERT Solutions for Class 7 Social Science Geography Chapter 2 Summary

The second chapter of the NCERT Class 7 Social Science Geography textbook, titled "Inside Our Earth," is a fascinating exploration of the Earth's interior and the geological processes that shape its structure. The chapter primarily focuses on the layers of the Earth, the types of rocks, and the significance of minerals.

- **Interior of the Earth:** The Earth's interior is divided into three main layers: the Crust, the Mantle, and the Core. The Crust, which is the outermost layer, is where we find land, oceans, and all living organisms. Beneath the Crust lies the Mantle, a semi-fluid layer responsible for convection currents that drive tectonic plate movements. The Core, composed of iron and nickel, is the Earth's innermost layer, divided into a solid inner core and a liquid outer core.
- **Rocks and Minerals:** The chapter delves into the three major types of rocks: Sedimentary Rocks, Metamorphic Rocks, and Igneous Rocks. It explains how each type is formed and highlights their distinctive characteristics. Sedimentary Rocks are created through the accumulation of sediments over time, while Metamorphic Rocks result from the transformation of existing rocks due to heat and pressure. Igneous Rocks, on the other hand, originate from the cooling and solidification of magma.

- **Significance of Minerals:** Minerals, as naturally occurring substances with specific physical properties and chemical compositions, play a crucial role in sustaining life on Earth. The chapter emphasizes the importance of minerals in various aspects of human life, including agriculture, industry, and healthcare. Different minerals contribute to processes such as plant growth, bone formation, and metabolic activities.
- **Geological Processes:** The chapter also introduces students to key geological processes such as earthquakes and volcanic eruptions. It explains how the movement of tectonic plates can lead to the formation of mountains and the occurrence of seismic activities. The Earth's magnetic field, a product of the outer core's movements, is explored for its role in navigation through compass needles aligning with magnetic field lines.

"Inside Our Earth" provides students with a comprehensive understanding of the Earth's dynamic and ever-changing interior. The knowledge gained from this chapter lays the groundwork for a deeper exploration of geological phenomena and their impacts on the planet's surface. The chapter encourages students to appreciate the intricate processes that have shaped the Earth over millions of years.

NCERT Solutions for Class 7 Social Science Geography Chapter 2 FAQs

Q1: What are the three main layers of the Earth's interior discussed in Chapter 2?

A1: The Earth's interior consists of three main layers discussed in Chapter 2 – Inside Our Earth:

- Crust (outermost layer)
- Mantle (semi-fluid layer)
- Core (innermost layer, comprising a solid inner core and a liquid outer core).

Q2: How are Sedimentary Rocks formed, as explained in the chapter?

A2: Sedimentary Rocks are formed through the accumulation and compaction of sediments over time. These sediments can include particles of rocks, minerals, and organic matter. Over millions of years, these sediments compress and harden to form Sedimentary Rocks.

Q3: What is the significance of the Earth's Core?

A3: The Earth's Core, composed of iron and nickel, is crucial for generating the planet's magnetic field. The movement of molten iron in the outer core creates electric currents, leading to the formation of the magnetic field. This field plays a vital role in navigation, as evidenced by compass needles aligning with magnetic field lines.

Q4: How do Metamorphic Rocks differ from Sedimentary Rocks?

A4: Metamorphic Rocks differ from Sedimentary Rocks in their formation process. While Sedimentary Rocks result from the accumulation of sediments, Metamorphic Rocks are formed when existing rocks undergo changes due to heat and pressure. This transformation often leads to the development of new minerals and textures in the rocks.

Q5: What is the role of minerals in human life, according to the chapter?

A5: Minerals have a significant impact on various aspects of human life. They are essential for activities such as plant growth, bone formation, and metabolic processes. Different minerals contribute to agricultural practices, industrial processes, and even healthcare. The chapter highlights the diverse roles minerals play in sustaining life on Earth.