NCERT Solutions for Class 7 Social Science Geography Chapter 3 – Our Changing Earth PDF & Important Questions

NCERT Solutions for Class 7 Social Science Geography Chapter 3*, titled "Our Changing Earth," are available for free in PDF format online. You can find them on educational websites like Physics Wallah!*

NCERT Solutions for Class 7 Social Science Geography Chapter 3: Embarking on the educational journey of Class 7 Social Science can be as thrilling as it is challenging, especially when it comes to comprehending the dynamic nature of Geography.

The third chapter, 'Our Changing Earth,' delves into the geological phenomena that shape our planet. Whether you're battling the formidable force of writer's block or simply seeking a structured guide, this blog post is your compass to navigating NCERT Solutions for Class 7 Geography Chapter 3.

NCERT Solutions for Class 7 Social Science Geography Chapter 3 Overview

The Earth's movements are categorized based on the forces responsible for them. Forces acting within the Earth are termed endogenic forces, while those affecting the Earth's surface are known as exogenic forces. Earthquakes and volcanic activities can result in significant damage to the Earth's surface.

The constant processes of weathering and erosion contribute to the continuous alteration of the landscape. This set of NCERT Solutions for Class 7 Geography comprehensively addresses all the questions presented in the Class 7 Geography textbook, Chapter 3 – Our Changing Earth.

NCERT Solutions for Class 7 Social Science Geography Chapter 3 Our Changing Earth

Chapter 3 of NCERT Class 7 Social Science Geography is titled "Our Changing Earth." This chapter delves into the various forces and processes that contribute to the dynamic nature of the Earth's surface. Here's a detailed overview:

Earth's Movements:

The chapter begins by categorizing Earth's movements into two main types: endogenic forces and exogenic forces.

1) Endogenic Forces:

- These are the forces that act within the Earth's interior, leading to geological phenomena. Earthquakes and volcanic activities are two prominent examples of endogenic forces.
- The chapter explores the causes and effects of earthquakes, shedding light on the intense seismic activities that can result in significant disruptions on the Earth's surface.
- Volcanic eruptions, another manifestation of endogenic forces, are discussed in detail. The causes of volcanic eruptions and their impact on the landscape are explained.

2) Exogenic Forces:

- Exogenic forces operate on the Earth's surface, contributing to changes in the landscape over time.
- The chapter examines how weathering and erosion, as exogenic processes, play crucial roles in shaping the Earth's surface.

Earthquakes:

1) **Causes:**
   - The chapter provides insights into the causes of earthquakes, primarily focusing on tectonic activities and the movement of Earth's plates.

2) **Consequences:**
   - Students gain an understanding of the consequences of earthquakes, including the destruction of structures and the impact on human life.

Volcanic Eruptions:

1) **Causes and Occurrence:**
   - The causes of volcanic eruptions are discussed, highlighting the role of magma movement beneath the Earth's crust.
   - The occurrence of volcanic eruptions and the formation of volcanic landforms are explained.

Weathering:

1) **Process:**
   - Weathering is introduced as a process responsible for the breakdown of rocks into smaller particles.

- Physical and chemical weathering mechanisms are elucidated.

Erosion:

1) **Definition:**
    - Erosion is defined as the process of transporting and depositing weathered materials by agents such as wind, water, and ice.
    - The chapter explores how erosion contributes to landscape changes.

Chapter 3 offers a comprehensive exploration of Earth's dynamic processes, encompassing endogenic and exogenic forces, earthquakes, volcanic activities, weathering, and erosion. It equips students with a solid foundation for comprehending the ever-changing nature of our planet.

NCERT Solutions for Class 7 Social Science Geography Chapter 3 Imp Ques and Ans

Here are important questions and answers for Chapter 3 of Class 7 Social Science Geography, "Our Changing Earth":

1. What are endogenic forces, and how do they shape the Earth's surface?

- Answer: Endogenic forces are the forces acting within the Earth's interior, causing geological phenomena. They include processes like tectonic activities, leading to earthquakes and volcanic eruptions, which significantly shape the Earth's surface.

2. Explain the causes and consequences of earthquakes.

- Answer: Earthquakes are primarily caused by the movement of tectonic plates beneath the Earth's surface. The consequences include ground shaking, destruction of structures, and potential loss of life.

3. How are volcanic eruptions caused, and what landforms do they create?

- Answer: Volcanic eruptions are caused by the movement of magma beneath the Earth's crust. They create landforms such as volcanoes, lava plateaus, and volcanic islands.

4. Define weathering and its types.

- Answer: Weathering is the process of breaking down rocks into smaller particles. There are two types: physical weathering, involving mechanical breakdown, and chemical weathering, involving changes in the chemical composition.

5. What role does erosion play in shaping the Earth's landscape?

- Answer: Erosion is the process of transporting and depositing weathered materials. It plays a crucial role in shaping the Earth's landscape by sculpting valleys, riverbanks, and other landforms.

6. Explain the concept of endogenic forces.

- Answer: Endogenic forces are the geological forces acting within the Earth's interior. They are responsible for shaping the Earth's surface through processes such as tectonic activities, earthquakes, and volcanic eruptions.

7. How do earthquakes affect the environment?

- Answer: Earthquakes can have severe consequences, including structural damage, landslides, and tsunamis. They can lead to changes in the Earth's topography and impact ecosystems.

8. Describe the formation of volcanic landforms.

- Answer: Volcanic landforms are created through the eruption and deposition of lava and volcanic materials. Examples include volcanoes, calderas, and lava plateaus.

9. Differentiate between physical and chemical weathering.

- Answer: Physical weathering involves the mechanical breakdown of rocks into smaller particles without changing their chemical composition. Chemical weathering, on the other hand, involves alterations in the chemical structure of rocks.

10. Discuss the significance of erosion in shaping landscapes.

- Answer: Erosion is significant in shaping landscapes by transporting and depositing weathered materials. It contributes to the formation of valleys, river deltas, and coastal landforms.

These questions and answers provide a comprehensive understanding of the key concepts covered in Chapter 3 of Class 7 Social Science Geography.

NCERT Solutions for Class 7 Social Science Geography Chapter 3 Short Long Ques and Ans

Here are some short and long questions along with their answers for Chapter 3 of Class 7 Social Science Geography, "Our Changing Earth":

Short Questions:

1. Define endogenic forces.

- Answer: Endogenic forces are geological forces that act within the Earth's interior, leading to various processes such as tectonic activities, earthquakes, and volcanic eruptions.

2. Explain the term 'weathering'.

- Answer: Weathering is the process of breaking down rocks into smaller particles through physical or chemical means.

3. What is the primary cause of earthquakes?

- Answer: The primary cause of earthquakes is the movement of tectonic plates beneath the Earth's surface.

4. Name one landform created by volcanic eruptions.

- Answer: Volcanic cones are landforms created by volcanic eruptions.

5. Differentiate between physical and chemical weathering.

- Answer: Physical weathering involves the mechanical breakdown of rocks, while chemical weathering involves changes in the chemical composition of rocks.

6. What are tectonic plates?

- Answer: Tectonic plates are large, rigid pieces of the Earth's lithosphere that move and interact at plate boundaries, leading to geological phenomena such as earthquakes and volcanic activity.

7. Explain the concept of exogenic forces.

- Answer: Exogenic forces are geological forces that operate on the Earth's surface, causing external modifications like erosion, sedimentation, and the formation of landforms.

8. Mention one example of a landform created by river erosion.

- Answer: River valleys are examples of landforms created by river erosion.

9. How does chemical weathering contribute to soil formation?

- Answer: Chemical weathering breaks down rocks into minerals, contributing to the formation of soil by enriching it with essential nutrients.

10. What is the primary source of energy for the Earth's processes?

- Answer: The Sun is the primary source of energy for Earth's processes, including weathering, erosion, and the water cycle.

Long Questions:

1. Discuss the impact of earthquakes on the environment and human structures.

- Answer: Earthquakes can cause ground shaking, landslides, tsunamis, and structural damage to buildings. They impact the environment by altering topography and ecosystems.

2. Describe the formation of volcanic landforms and their significance.

- Answer: Volcanic landforms are created through the eruption and deposition of lava and volcanic materials. They include volcanoes, calderas, and lava plateaus. These landforms play a crucial role in shaping the Earth's surface.

3. Explain the processes involved in physical weathering.

- Answer: Physical weathering involves processes like frost action, exfoliation, and abrasion. Frost action occurs when water freezes in cracks, expanding and breaking rocks. Exfoliation is the peeling away of outer layers, and abrasion involves the mechanical wearing down of rocks.

4. How does erosion contribute to landscape formation?

- Answer: Erosion is the process of transporting and depositing weathered materials. It contributes to the formation of various landscapes, including valleys, river deltas, and coastal landforms.

5. Discuss the role of weathering and erosion in changing Earth's features.

- Answer: Weathering breaks down rocks, and erosion transports and deposits the weathered materials. Together, they play a significant role in changing Earth's features by sculpting landforms and altering landscapes.

6. Elaborate on the significance of river valleys in shaping landscapes.

- Answer: River valleys are formed through the erosion and deposition of rivers. They play a crucial role in shaping landscapes by creating diverse features like V-shaped valleys, floodplains, and deltas.

7. Discuss the role of glaciers in landscape formation.

- Answer: Glaciers shape landscapes through processes like plucking, abrasion, and deposition. They create features such as U-shaped valleys, moraines, and fjords.

8. How does the Earth's interior heat contribute to tectonic activities?

- Answer: The Earth's interior heat drives tectonic activities by causing convection currents in the mantle, leading to the movement of tectonic plates and resulting in earthquakes and volcanic eruptions.

9. Explain the role of vegetation in preventing soil erosion.

- Answer: Vegetation helps prevent soil erosion by providing ground cover, stabilizing soil with roots, and reducing the impact of rainfall on the soil surface.

10. Compare the features of igneous, sedimentary, and metamorphic rocks.

- Answer: Igneous rocks form from molten lava, sedimentary rocks from sediments, and metamorphic rocks from the alteration of existing rocks under heat and pressure. Each type has distinct characteristics.

These short and long questions provide a comprehensive overview of the key concepts covered in Chapter 3 of Class 7 Social Science Geography.

NCERT Solutions for Class 7 Social Science Geography Chapter 3 Exercise Questions

1) How are flood plains formed?
Answer: Flood plains are formed when a river overflows its banks, leading to the flooding of the surrounding area. During a flood, the river deposits a layer of fine soil and sediments, creating a fertile layer of soil known as flood plains.

2) What are sand dunes?
Answer: Sand dunes are hill-like structures formed when wind lifts and transports sand from one place to another. When the wind stops blowing, the deposited sand accumulates in low hill-like structures, creating sand dunes. These are commonly found in desert areas.

3) How are beaches formed?
Answer: Beaches are formed through the deposition of sediments by sea waves along the seashores. The continuous action of waves brings and deposits sediments, shaping the characteristic sandy beaches.

4) What are ox-bow lakes?
Answer: Ox-bow lakes are formed when a river, as it enters the plains, creates large bends known as meanders. Over time, these meander loops cut off from the river, forming cut-off lakes, commonly known as ox-bow lakes.

5) Tick the correct answer.
(i) Which is not an erosional feature of sea waves?
Answer: b - Beach
(ii) The depositional feature of a glacier is:
Answer: c - Moraine
(iii) Which is caused by the sudden movements of the earth?

Answer: a – Volcano
(iv) Mushroom rocks are found in:
Answer: a – Deserts
(v) Ox bow lakes are found in:
Answer: b – River valleys

6) Match the following.
(i) Glacier (c) River of ice
(ii) Meanders (d) Rivers
(iii) Beach (a) Sea shore
(iv) Sand dunes (h) Deserts
(v) Waterfall (g) Hard bedrock
(vi) Earthquake (e) Vibrations of earth
(f) Sea cliff
(g) Hard bedrock
(h) Deserts

7) Give reasons.
(i) Some rocks have the shape of a mushroom.
Answer: Some rocks have a mushroom shape in deserts because wind erosion affects the lower section more than the upper section. This uneven erosion results in a narrow base and a wider upper part, resembling the shape of a mushroom.

(ii) Flood plains are very fertile.
Answer: Flood plains are fertile because when rivers overflow, they deposit a layer of fine soil and sediments on the banks. This process enriches the soil, making flood plains highly fertile for agriculture.

(iii) Sea caves are turned into stacks.
Answer: Sea caves transform into stacks when the cavities within them enlarge. The erosion process removes the cave roof, leaving behind only the walls, which results in the formation of stacks.

(iv) Buildings collapse due to earthquakes.
Answer: Earthquakes occur due to the sudden movement of lithospheric plates, causing vibrations that travel outward in the form of waves. These seismic waves can lead to the collapse of buildings as the ground shakes during an earthquake.

NCERT Solutions for Class 7 Social Science Geography Chapter 3 PDF

Our exploration of NCERT Solutions for Class 7 Social Science Geography Chapter 3, we have encapsulated the vital takeaways that can profoundly augment your understanding of the subject. The comprehensive and well-structured solutions provided by Physics Wallah not only clarify complex concepts but also equip students with the tools to excel academically.

By downloading the solutions in the convenient PDF format, learning becomes a streamlined and more approachable endeavour. Don't miss out on the opportunity to enhance your study sessions. Visit Physics Wallah to download your PDF solutions and take the first step towards mastering your geography coursework with confidence.

NCERT Solutions for Class 7 Social Science Geography Chapter 3 Summary

The chapter delves into the dynamic forces shaping the Earth's surface, emphasizing the movements of lithospheric plates driven by endogenic forces originating from the Earth's interior and exogenic forces acting on the surface. Here's a comprehensive summary:

1) Lithospheric Plates:

The lithosphere is fragmented into plates known as lithospheric plates. These plates undergo slow movement due to the circulation of molten magma inside the Earth, causing significant changes on the Earth's surface.

2) Forces and Movements:

Earth's movements are categorized into endogenic forces, operating within the Earth, and exogenic forces, influencing the Earth's surface. Endogenic forces manifest as earthquakes and volcanoes, causing both abrupt and gradual changes.

3) Endogenic Forces:

- Forces within the Earth, leading to phenomena like earthquakes and volcanic eruptions.
- Sudden movements, such as earthquakes and volcanic activities, result in widespread destruction on the Earth's surface.

4) Exogenic Forces:

- Surface forces shaping the Earth's topography.
- Exogenic forces contribute to processes like weathering and erosion, gradually transforming landscapes.

5) Geological Phenomena:

- **Volcanoes:**
    - Vents in the Earth's crust through which molten material erupts suddenly.

- **Earthquakes:**
    - Vibrations caused by the movement of lithospheric plates, with the focus as the origin in the crust and the epicenter on the surface above it.

6) Prediction Methods:
Communities use various methods for earthquake prediction, such as observing animal behavior, noting changes in fish and snake activity, and other localized indicators.

7) Major Landforms:
The Earth's surface undergoes constant modifications through two primary processes – weathering and erosion.

- **Weathering:**
    - Breakdown of rocks on the Earth's surface.
- **Erosion:**
    - Wearing away of landscapes by agents like water, wind, and ice.
    - The eroded material is transported and deposited, contributing to the creation of diverse landforms.

8) River Dynamics:
Rivers play a crucial role in shaping landscapes through distinctive features.

- **Waterfall:**
    - Forms when a river cascades at a steep angle over hard rocks.
- **Meanders:**
    - Twisting and turning of rivers, creating large bends.
- **Cut-off Lake:**
    - Formation when meanders cut off from the river, forming an ox-bow lake.
- **Floodplain:**
    - Deposition of sediments along river banks during floods, forming fertile floodplains.
- **Distributaries and Delta:**
    - River's division into distributaries as it approaches the sea, forming a delta through sediment deposition.

9) Sea Waves and Ice Actions:

- **Sea Waves:**
    - Erosion forms features like sea caves, sea arches, stacks, and sea cliffs.
- **Ice (Glaciers):**
    - Glaciers act as "rivers of ice," eroding landscapes and forming features like glacial moraines and lakes.

10) Wind Action:

- **Wind:**
    - A significant agent of erosion and deposition in deserts.
    - Creates features like mushroom rocks, sand dunes, and loess.

The chapter provides a holistic understanding of the Earth's dynamic processes, showcasing the interconnectedness of geological phenomena and their impact on the ever-changing Earth's surface.

NCERT Solutions for Class 7 Social Science Geography Chapter 3 FAQs

Q1: How do earthquakes occur, and what are their key components?
Answer: Earthquakes occur when there is movement among the lithospheric plates. The focus, the point of origin in the Earth's crust where the movement begins, and the epicenter, the point on the surface above the focus, are the key components. Vibrations travel as waves from the epicenter, causing varying degrees of damage.

Q2: What distinguishes exogenic forces, and what processes do they contribute to?
Answer: Exogenic forces operate on the Earth's surface, shaping the topography. These forces contribute to processes like weathering and erosion, gradually transforming landscapes over time.

Q3: How do rivers contribute to the formation of landforms?
Answer: Rivers shape the landscape through various features:

- Waterfalls form when rivers cascade over hard rocks at a steep angle.
- Meanders are large bends formed as rivers twist and turn.
- Cut-off lakes, like ox-bow lakes, are created when meanders cut off from the main river.
- Floodplains result from sediment deposition along river banks during floods.
- Distributaries and deltas form as rivers approach the sea and deposit sediment, creating a network of channels.

Q4: What are the major actions of sea waves and ice in shaping landforms?
Answer: Sea waves erode coastlines, forming features such as sea caves, sea arches, stacks, and sea cliffs. Glaciers, acting as "rivers of ice," carve landscapes and leave behind features like glacial moraines and lakes.

Q5: How does wind contribute to the erosion and deposition of landforms?
Answer: In deserts, wind is a significant agent of erosion and deposition. Wind shapes rocks into features like mushroom rocks, creates sand dunes through the transport and

deposition of sand, and forms loess when fine sand is carried over long distances and deposited in large areas.