

CLASS XI

Prescribed Books:

1. Fundamentals of Physical Geography, Class XI, Published by NCERT
2. India, Physical Environment, Class XI, Published by NCERT
3. Practical Work in Geography Part I, Class XI, Published by NCERT

Links for Rationalised 2024-25 NCERT Social Science textbooks:

1. <https://ncert.nic.in/textbook.php?kegy2=0-14>
2. <https://ncert.nic.in/textbook.php?kegy1=0-6>
3. <https://ncert.nic.in/textbook.php?kegy3=0-6>

Note:

1. The above textbooks are also available in Hindi medium.
2. Kindly refer to the latest editions of all NCERT Textbooks.

**CLASS XI
COURSE STRUCTURE**

Book- Fundamentals of Physical Geography

Chapter No.	Chapter name	Periods	Weightage
Unit- I Geography as a Discipline			
1	Geography As a Discipline	5	3
Unit II The Earth			
2	The Origin and Evolution of the Earth	6	9
3	Interior of the Earth	6	
4	Distribution of oceans and continents	5	
Unit- III Landforms			
5	Geomorphic Processes	9	6
6	Landform and their Evolution	9	
Unit-IV Climate			
7	Composition and Structure of Atmosphere	3	
8	Solar Radiation, Heat balance and Temperature	7	

9	Atmospheric Circulations and Weather Systems	7	8
10	Water in the Atmosphere	4	
11	World Climate and Climate Change (To be tested through internal assessments in the form of project and presentation)	5	
Unit-V Water (Oceans)			
12	Water (Oceans)	6	4
13	Movements of Ocean Water	8	
Unit VI Life on the Earth			
14	Biodiversity and Conservation (To be tested through internal assessments in the form of project and presentation)	4	–
	Map Work	5	5
Total		89	35

Book – India- Physical Environment

Chapter No.	Chapter Name	Periods	Weightage
Unit-I Introduction			
1	India- Location	5	5

Unit II Physiography			
2	Structure and Physiography	18	13
3	Drainage System	14	
Unit III Climate Vegetation and Soil			
4	Climate	16	12
5	Natural Vegetation	14	
Unit-IV Natural Hazards and Disasters: Causes Consequences and Management			
6	Natural Hazards and Disasters (To be tested through internal assessment in the form of Projects and presentation)	6	–
	Map	5	5
Total		78	35

Geography Practical Part I

Chapter No.	Chapter Name	Periods	Weightage
1	Introduction to Maps	6	3
2	Map Scale	6	4
3	Latitude Longitude and Time	8	4

4	Map Projections	10	4
5	Topographical Maps	10	4
6	Introduction to Remote Sensing	10	6
Practical file and Viva			5
Total		50	30

**CLASS XI
COURSE CONTENT**

Fundamentals of Physical Geography

Chapter No. and Name	Specific Learning Objectives	Suggested Teaching Learning Process	Learning Outcomes
<p style="text-align: center;">1 Geography as a Discipline</p>	<ul style="list-style-type: none"> To define and understand the scope and nature of Geography as a discipline. 	<p>Observe your surroundings and note down the variation in natural as well as cultural phenomena. Discuss with your partner: Geography is the study of “areal differentiation.”</p> <p style="text-align: center;">Project Work</p> <p>Topic: - Forest - as a natural resource.</p> <ul style="list-style-type: none"> Prepare a map of India showing the distribution of different types of forests. Write about the economic importance of forests for the country. Prepare a historical account of conservation of forests in India with focus on Chipko movements in Rajasthan and Uttaranchal. 	<p>At the completion of this unit students will be able to:</p> <ul style="list-style-type: none"> Explain the meaning of geography as an integrating discipline. State the fields of geography and its relationship with other disciplines. Explain the approaches to study geography.

<p style="text-align: center;">2 The Origin and Evolution of the Earth</p>	<ul style="list-style-type: none"> To acquire knowledge about earth's origin through various theories. To understand various stages in the evolution of the earth. 	<ul style="list-style-type: none"> Watch videos of theories (Big Bang etc.) in the classroom through projector. Presentation and interaction about the origin of the earth by students. Students to explore more information related to the topic. 	<p>At the completion of this unit students will be able to:</p> <ul style="list-style-type: none"> Describe the Big Bang, Planetesimal theory, Nebular Hypothesis related to the origin of the universe.
<p style="text-align: center;">3 Interior of the Earth</p>	<ul style="list-style-type: none"> To understand that the configuration of the surface of the earth is largely a product of the exogenic and endogenic processes operating in the interior of the earth 	<p>Activity: Draw a well labelled diagram to show the interior of the earth.</p> <ul style="list-style-type: none"> Draw a diagram of a volcano and mark the following parts: <ul style="list-style-type: none"> a. Magma Chamber b. Vent c. Central Pipe d. Lava flow Draw a diagram to show the intrusive volcanic forms. Case study of earthquakes that occurred in India and Turkey in recent times. 	<p>At the completion of this unit students will be able to:</p> <ul style="list-style-type: none"> Describe direct and indirect sources of information about the interior of the earth. Discuss Earthquakes—its causes and effects, define: Epicentre, Hypocentre, Earthquake waves and its propagation, Shadow zones, Measuring the intensity of Earthquakes. Explain the interior structure of the earth. Explain Volcanoes, its types and volcanic landforms.

<p style="text-align: center;">4 Distribution of seas and oceans</p>	<ul style="list-style-type: none"> To describe the theory of continental drift proposed by Alfred Wegner. To understand the present configuration of continents and oceans through plate tectonics theory. 	<ul style="list-style-type: none"> On the outline world map mark and label the following: <ul style="list-style-type: none"> a. Major plate boundaries b. Ring of fire c. Hot spot Volcanoes Draw diagrams to show different types of plate boundaries. Case Study: https://www.downtoearth.org.in/news/natural-disasters/out-of-the-abyss-56977 	<p>At the completion of this unit students will be able to:</p> <ul style="list-style-type: none"> Provide evidence in support of continental drift and force for drifting. Explain Post drift studies, Convectional current theory, Mapping of the ocean floor, Ocean floor configuration, Concept of sea floor spreading, Describe theory of plate tectonics and different types of plate boundaries. Trace the movements of Indian Plate.
<p style="text-align: center;">5 Geomorphic Processes</p>	<ul style="list-style-type: none"> To understand various exogenic and endogenic processes responsible to bring changes in the configuration of the surface of the earth. 	<ul style="list-style-type: none"> Prepare a concept map to show different Exogenic and Endogenic Processes. Students will prepare concept map on denudational processes. Study types of weathering: Physical, Chemical, Biological and their importance for human being. 	<p>At the completion of this unit students will be able to:</p> <ul style="list-style-type: none"> Differentiate between geomorphic processes and geomorphic agents. Describe factors that affect soil formation. Define the following terms: Exfoliation, Denudation, Weathering etc.

		<ul style="list-style-type: none"> • Study types of mass movements and prepare a mind map. 	
<p>6 Landforms and their Evolution</p>	<ul style="list-style-type: none"> • To understand the nature of different erosional and depositional agents and landforms made by them. 	<ul style="list-style-type: none"> • Visit nearby landforms and draw sketches. • Draw neat and well labelled diagrams of landforms created by running water, wind, waves etc. • Watch videos of different landforms created by running water, underground water, glacier, wind, sea waves etc. • Find out the advantages and disadvantages of different landforms from the internet. • Prepare charts to show different landforms. 	<p>At the completion of this unit students will be able to:</p> <ul style="list-style-type: none"> • Describe and draw various erosional and depositional landforms created by different agents. • Students will be able to compare and analyse various landforms. • Locate different landforms (mountains, plateaus, plains) on the outline map of the world.
<p>7 Composition and Structure of Atmosphere</p>	<ul style="list-style-type: none"> • To understand the composition and structure atmosphere. 	<ul style="list-style-type: none"> • Watch a video on the importance of different layers of the atmosphere. • Write songs based on different seasons. • Draw a neat and well labelled diagram to show different layers 	<p>At the completion of this unit students will be able to:</p> <ul style="list-style-type: none"> • Describe the composition and characteristics of different layers of atmosphere.

		of the atmosphere and write the importance of each layer.	<ul style="list-style-type: none"> Correlate climate change with Sustainable Development Goals13: Climate Action.
<p>8</p> <p>Solar Radiation, Heat Balance and Temperature</p>	<ul style="list-style-type: none"> To understand the heating and cooling of the atmosphere and the resultant temperature distribution over the surface of the earth. 	<ul style="list-style-type: none"> Students to learn about the three different modes of heat transfer—convection, conduction, radiation— with the help of an activity and how they are related to the Sun and life on our planet. Draw a diagram to show the passage of solar radiation through the atmosphere. Study figure 9.4 and 9.5 and write the distribution of surface temperature in the month of January and July. 	<p>At the completion of this unit students will be able to:</p> <ul style="list-style-type: none"> Differentiate between solar radiation and terrestrial radiation. Give reasons for variability of insolation at the surface of the earth. Explain the heat budget of the planet earth. Describe factors controlling temperature distribution. Explain inversion of temperature.
<p>9</p> <p>Atmospheric Circulation and Weather Systems</p>	<ul style="list-style-type: none"> To understand the general atmospheric circulation and the forces that control the circulation. To understand the meaning of various terms related to the topic. To know the causes and consequences of air circulation. 	<ul style="list-style-type: none"> Students may read various theories and articles related to atmospheric circulation and weather system. Students are advised to watch videos on movements of winds: 	<p>At the completion of this unit students will be able to:</p> <ul style="list-style-type: none"> Describe the permanent pressure belts and the prevailing winds. Explain different types of winds. Differentiate between tropical and extra tropical cyclones.

		<ul style="list-style-type: none"> The students can be encouraged to prepare presentation on different topics in the chapter. Examine the weather conditions necessary for the formation of cyclones, tornadoes, hurricanes etc. 	<ul style="list-style-type: none"> Realize how global warming is result of atmospheric pollution and how it can be minimised if not prevented.
<p>10 Water in the Atmosphere</p>	<ul style="list-style-type: none"> To understand continuous exchange of water between the atmosphere, the oceans and the continents through the processes of evaporation, transpiration, condensation and precipitation. 	<ul style="list-style-type: none"> Make a list of different forms of condensation and precipitation and define them. Draw diagrams of different types of rainfall. On a world map mark and label areas of heavy, moderate, low and inadequate rainfall. 	<p>At the completion of this unit students will be able to:</p> <ul style="list-style-type: none"> Explain the process of precipitation and its different forms. Analyse the variation in the distribution of rainfall in the world.
<p>11 World Climate and Climate Change</p> <p>(To be tested through internal assessments in the form of project and presentation)</p>	<ul style="list-style-type: none"> To define three broad approaches that have been adopted for classifying climate – Empirical Classification, Genetic Classification, and Applied Classification. To Describe various types of climates and their groups/ subtypes. 	<ul style="list-style-type: none"> Classify climate based on various schemes by Koeppen with the help of a mind map. Describes the causes and effects of global warming. Evaluate the climate changes in the recent past. 	<p>At the completion of this unit students will be able to:</p> <ul style="list-style-type: none"> The topic can be presented in class through PPT or Project Work after conducting extensive and guided research by students.

	<ul style="list-style-type: none"> To analyse Koeppen's Scheme of Classification of Climate. To explain climate change and related concepts. To evaluate the climate changes in the recent past. 		
<p>12 Water (Oceans)</p>	<ul style="list-style-type: none"> To explain water cycle and summarize how an increase in demand for water leads to a water crisis. To Illustrate major and minor ocean floor features. (mid-oceanic ridges, seamounts, submarine canyons, guyots, and atolls) To describe horizontal and vertical distribution of oceanic temperature. To evaluate the factors affecting the salinity of ocean waters. 	<ul style="list-style-type: none"> Draw a diagram to show major and minor features of ocean floor. Study figure 13.5 and analyse the horizontal distribution of salinity in different oceans. Locate and label the major seas on a political map of the world (As given in map list). 	<p>At the completion of this unit students will be able to:</p> <ul style="list-style-type: none"> Describe the basic processes involved in hydrological cycle with the help of a well labelled diagram. Describe the relief features of the ocean floor. Explain the process of heating and cooling of oceanic water and factors that affect temperature distribution in the ocean. Describe the salinity of ocean waters.
<p>13 Movements of Ocean Water</p>	<ul style="list-style-type: none"> To define and differentiate between tides and currents. 	<ul style="list-style-type: none"> Mark and label the major warm and cold currents on an outline world map. (As per the given map list) 	<p>At the completion of this unit students will be able to:</p> <ul style="list-style-type: none"> Explain tides, currents and waves.

	<ul style="list-style-type: none"> • To describe the formation of sea waves. • To analyse the importance of tides. • To classify and describe major ocean currents and its effects. 	<ul style="list-style-type: none"> • Draw a diagram of spring and neap tides. 	<ul style="list-style-type: none"> • Analyse the economic significance of tides. • Describe ocean currents and the forces that influence them. • Distinguish between cold and warm ocean currents.
<p>14 Biodiversity and Conservation</p>	<ul style="list-style-type: none"> • To explain the three major realms of the environment. • To explain the concept of ecology. • To analyse the features and types of aquatic ecosystems and biomes, with examples. 	<ul style="list-style-type: none"> • Make a list of flora and fauna found in your surroundings and make a scrap book containing information and pictures of at least ten species. 	<p>At the completion of this unit students will be able to:</p> <ul style="list-style-type: none"> • Describe the characteristic features of the biosphere. • Define ecology and related terms and explain the need for ecological balance. • Recognize the abiotic and biotic factors of the ecosystem. • Compare and contrast the features of five major biomes of the world – forest, grassland, desert, aquatic, and altitudinal.

India Physical Environment

Chapter No. and Name	Specific Learning Objectives	Suggested Teaching Learning Process	Learning Outcomes
1 India- Location	<ul style="list-style-type: none"> To understand the geographical location of India and its significance. 	<ul style="list-style-type: none"> On an outline map of India mark all the neighbouring countries and compare the size of India with its neighbours. Make a list of all the states that share common boundary with our neighbouring countries. Mark and label the land boundary and coastline on an outline map of India. On a political map of India mark and label the states and UTs. 	<p>At the completion of this unit students will be able to:</p> <ul style="list-style-type: none"> Describe the location of India mentioning the surrounding water bodies. Analyse the implications of living in a country with vast longitudinal and latitudinal extent and its impact on the standard time of India. Explain the vastness of India and the diversity that comes along with it.
2 Structure and Physiography	<ul style="list-style-type: none"> To understand the evolution of different geological structures in India. To acquire knowledge about physiographic divisions and their subdivisions. 	<ul style="list-style-type: none"> Identify the physiographic and geological region you live in. Discuss the impact of physiography on the development of your region. On an outline map of India mark and label the physiographic divisions of India. 	<p>At the completion of this unit students will be able to:</p> <ul style="list-style-type: none"> Explain the evolution of various geological structures in different parts of the country. Describe major physiographic divisions and the processes of their formation.

			<ul style="list-style-type: none"> • Locate the major physical features on the map of India.
<p>3 Drainage System</p>	<ul style="list-style-type: none"> • To understand the drainage system and drainage patterns of Indian rivers. • To understand the extent of use ability of river water and the problems associated with it. 	<ul style="list-style-type: none"> • Have a group discussion in your class about floods-their positive and negative impact. • Make a list of east flowing and west flowing rivers of Peninsular region. 	<p>At the completion of this unit students will be able to:</p> <ul style="list-style-type: none"> • Understand the major drainage systems of India. • Analyse the causes of river water pollution. • Differentiate between Himalayan and Peninsular rivers.
<p>4 Climate</p>	<ul style="list-style-type: none"> • To understand Indian monsoon: and its mechanism. • To list the weather conditions that prevail during different seasons. • To analyse the variation in distribution of rainfall in India. 	<ul style="list-style-type: none"> • Students to mark and label the hottest, coldest, driest and wettest places in India. (on a political map) • Students should be made to understand Air Quality Index. • (The Air Quality Index is a way for the government to alert people to the quality of the air and how bad the air pollution is in an area or city. • Colours are used to indicate the air quality. • Green - the air is good. • Yellow - the air is moderate 	<p>At the completion of this unit students will be able to:</p> <ul style="list-style-type: none"> • Discuss the factors affecting climate of the country and its effect on country's economic life. • Understand the annual cycle of four main seasons in India. • Able to realise the causes and problems of climate changes. • Able to understand the concept of Global Warming.

		<ul style="list-style-type: none"> • Orange - the air is unhealthy for sensitive people like the elderly, children, and those with lung diseases. • Red – Unhealthy • Purple - Very unhealthy • Maroon – Hazardous) 	
<p>5 Natural Vegetation</p>	<ul style="list-style-type: none"> • To understand the relationship between vegetation belts and the climate. 	<ul style="list-style-type: none"> • Students would be able to enhance their communication skills by debating on positive and negative impact of human activities on forest cover and wildlife. • To mark all major types of forests on a map of India. • Class can be divided into groups to collect information about people's participation in the conservation of forests and wildlife. 	<p>At the completion of this topic the students will be able to:</p> <ul style="list-style-type: none"> • The students will be able to recognise the importance of forest cover in the country and its spatial distribution. • They will learn about number of species of plants and animals in India. • They will appreciate the efforts in conservation of forests and wildlife.
<p>6 Natural Hazards and Disasters</p> <p>(To be tested through internal assessment in the</p>	<ul style="list-style-type: none"> • To make students aware about natural hazards and disasters happening in various parts of the country, their impact and ways to mitigate the damage caused by them. 	<ul style="list-style-type: none"> • Divide your class into groups and allocate one disaster to each group. • Every group should think of themselves as living in a disaster prone area of their allocated topic. 	<p>At the completion of this topic the students will be able to:</p> <ul style="list-style-type: none"> • Classify different types of hazards and disasters.

form of Projects and presentation)		<ul style="list-style-type: none"> All groups would give a presentation on causes, impact and risk reduction of that disaster. 	<ul style="list-style-type: none"> Describe causes, effects and mitigation policy for various natural disasters. Identify and locate regions prone to different disasters on the map. Understand the concept of disaster management.
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Map Items for locating and labelling on outline political World Map

Fundamentals of Physical Geography

Chapter No. and Name	Map Work
<p style="text-align: center;">4</p> <p>Distribution of oceans and continents</p>	<ul style="list-style-type: none"> Political Map of all Continents of the world. Major Oceans of the world: Indian Ocean, Pacific Ocean, Atlantic Ocean, Arctic Ocean, Southern Ocean Major lithospheric plates and Minor lithospheric plates, Ring of fire (Pacific Ocean), Mid-Atlantic Ridge.
<p style="text-align: center;">9</p> <p>Atmospheric Circulations and Weather Systems</p>	<p>Major Hot Deserts of the world:</p> <ul style="list-style-type: none"> Mojave Desert- Nevada, US Patagonian Desert- Argentina Sahara- Africa Gobi Desert- Mongolia, Asia Thar desert- India Great Victoria desert- Australia

<p>12 Water(Oceans)</p>	<ul style="list-style-type: none"> • Major Seas • Black sea • Baltic sea • Caspian Sea • Mediterranean Sea • North Sea • Red sea • Bay of Fundy (Canada)-Famous for the highest tides in the world
<p>13 Movements of Ocean Water</p>	<p>OCEAN CURRENTS-Cold currents</p> <ul style="list-style-type: none"> • Humboldt c. • California c. • Falkland c. • Canaries c. • West Australian c. • Oyashio c. • Labrador c. <p>Warm currents</p> <ul style="list-style-type: none"> • Alaska c. • Brazilian c. • Aughlas c. • Kuroshio c. • Gulf stream c.
<p>14 Biodiversity and Conservation</p>	<p>Ecological hotspots</p> <ul style="list-style-type: none"> • Eastern Himalaya, India

	<ul style="list-style-type: none"> • Western ghats, India • Indonesia, Asia • Eastern Madagascar, Africa • Upper Guinean forests, Africa • Atlantic forest, Brazil • Tropical Andes
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Map Items for locating and labelling on outline political map of India

India Physical Environment

Chapter No and Name	Map Work
<p>1 India- Location</p>	<ul style="list-style-type: none"> • Latitudinal extent of India • Longitudinal extent of India • Standard Meridian of India • Important latitude passing through India (Tropic of Cancer) • Southern Most Point of mainland of India (Kanya Kumari)
<p>2 Structure and Physiography</p>	<ul style="list-style-type: none"> • Mountains: Karakoram Range, Garo- Khasi- Jaintia hills, Aravalli Range, Vindhyan Range, Satpura Range, Western ghats & Eastern ghats • Peaks: K2, Kanchenjunga, Nandadevi, Nanga Parvat, Namcha Barwa and Anaimudi • Passes: Shipkila, Nathula, Palghat, Bhor ghat and Thal ghat • Plateaus: Malwa, Chhotnagpur, Meghalaya and Deccan Plateau. • Coastal Plains: Saurashtra, Konkan, North and South Kanara, Malabar, Coromandel and Northern Circars • Islands: Andaman & Nicobar Islands and Lakshadweep Islands

<p style="text-align: center;">3 Drainage System</p>	<ul style="list-style-type: none"> • Rivers: Brahmaputra, Indus, Satluj, Ganga, Yamuna, Chambal, Damodar, Mahanadi, Krishna, Kaveri, Godavari, Narmada, Tapi and Luni • Lakes: (Identification) Wular, Sambhar, Chilika, Kolleru, Pulicat & Vembanad • Straits, Bays, Gulfs: Palk Strait, Rann of Kachch, Gulf of Kachch, Gulf of Mannar & Gulf of Khambat
<p style="text-align: center;">4 Climate</p>	<ul style="list-style-type: none"> • Area with highest temperature in India • Area with lowest temperature in India • Area with highest rainfall in India • Area with lowest rainfall in India
<p style="text-align: center;">5 Natural Vegetation</p>	<p>(Identification on an outline map of India) Tropical evergreen, Tropical deciduous, Tropical thorn, Montane and Littoral/ Swamp forests. Wildlife reserves: (locating and labeling)</p> <ul style="list-style-type: none"> • National Parks: Corbett, Kaziranga, Ranthambore, Shivpuri, Simlipal • Bird Sanctuaries: Keoladev Ghana and Ranganathitto • Wild life Sanctuaries: Periyar, Rajaji, Mudumalai, Dachigam,

Guidelines for Internal Assessment/ Geography Practical

1. A practical file must be prepared by students covering all the topics prescribed in the practical syllabus.
2. The file should be completely handwritten with a cover page, index page and acknowledgment.
3. All practical works should be drawn neatly with appropriate headings, scale, index etc. Data can be taken from the NCERT textbook.
4. The practical file will be assessed at the time of term end practical examinations.
5. A written exam of 25 marks will be conducted based on prescribed practical syllabus.
6. Viva will be conducted based on practical syllabus only.
7. Written Exam -25 Marks
8. Practical file- 03 Marks
9. Viva- 02 Marks