

**GEOGRAPHY SYLLABUS: PLUS 1 / STANDARD XI**

<b>Unit</b>	<b>Expected Learning Geography</b>	<b>Content</b>	<b>Transaction Strategy and Activity</b>	<b>Teaching Aids</b>	<b>Periods</b>
I	<p>Ability to understand what an ecosystem means and the interactions among ecosystems</p> <p>Learning about the properties of an ecosystem</p> <p>Appreciating the origin of life on earth, its importance</p> <p>Learning the significance of atmosphere</p> <p>Understanding the need to preserve/ conserve/ protect ecosystems</p> <p>Learning how the four spheres of the earth operate</p> <p>Learning ecosystem and adaptive ecosystem management approaches</p>	<p>Ecosystems- Earth's Spheres: Recap on Lithosphere, Hydrosphere, Atmosphere, and Biosphere. Ecosystem structure, function and behaviour</p> <p>Ecosystem approach and adaptive ecosystem management approach</p>	<p>Collecting colour pictures of ecosystems and environments to give explanations</p> <p>Indicating local ecosystems and in the vicinity</p> <p>Human body as an ecosystem, with life and mind as special features</p> <p>Based on ecological approach, explaining the atmosphere</p> <p>Explaining how atmosphere works and how its layers differ in their characteristics</p> <p>Outdoor school for a day or two to learn about natural ecosystems</p> <p>Discussion on the nature and extent of disturbance and degradation in environment and rural and urban ecosystems</p> <p>Debate on how land, water and air get polluted and affect human health.</p>	<p>Blackboard, colour chalks, colour pictures of ecosystems, Video clippings and audio materials on degraded ecosystems.</p> <p>The conical diagram of ecosystem relations</p> <p>Slide show on select ecosystems</p> <p>UNESCO's Man and Biosphere (MAP) Program materials, if available.</p>	12
II	<p>Ability to realise ecosystem dynamics and its consequences</p> <p>Understanding ecosystem interactions</p> <p>Understanding Ecosystem- Environment relations</p> <p>Learning about the</p>	<p>Ecosystems dynamics</p> <p>Ecological succession Lived spaces/ places</p> <p>Ecosystem habitats</p> <p>Ecosystem types</p> <p>Water ecosystems</p> <p>Hill ecosystems</p>	<p>Explaining the nature and existence of several different ecosystems through pictures</p> <p>Explaining the idea of ecosystem dynamics from the writings of E.T. Odum</p> <p>Visits towards developing an</p>	<p>Colour pictures of ecosystems</p> <p>Mountains, rivers, tanks and seas as separate ecosystems</p> <p>Field work equipment and prior permission from parents for visits</p>	10

	<p>effects of interactions and ecosystem changes consequent upon them</p> <p>Realising the need to protect the ecosystems as from an understanding of individual ecosystems</p> <p>Ability to predict/ foresee ecosystem changes</p>		<p>appreciation of water ecosystems (say, a freshwater tank or lake and a brackish water ecosystem such as a lagoon)</p> <p>Taking or collecting pictures of ecosystems visited</p> <p>Field survey towards understanding the ecosystems and reporting on such a survey to the class</p> <p>Home ground discussion on any one of them</p> <p>Students assemble data and information on local ecosystems</p>		
iii	<p>Ability to understand the katabolic and anabolic activities</p> <p>Learning about the bio-geo-chemical cycles and their characteristics</p> <p>Learning about the energy transfers and how the work</p> <p>Understanding the working of the hydrological cycle and its significance in human life</p>	<p>The harmonious nature Metabolism</p> <p>Biospherical cycles, Bio-Geo-Chemical cycles</p> <p>Oxygen, Carbon and nitrogen cycles</p> <p>Hydrological cycles</p>	<p>Explanations for metabolism, its acts of katabolism and anabolism and also for the life building blocks</p> <p>Colour pictures and charts to show and demonstratively explain the cycles, cyclic changes, and benefits</p> <p>Class discusses the benefits of different cycles while engaged in drawing them as groups</p> <p>Visits to gather information on the nature of anthropogenic activities and reporting on them</p> <p>Round table and panel discussions by students</p> <p>Question-Answer session or quizzes</p>	<p>Blackboard, Colour chinks, Wall charts and maps</p> <p>Pictures MAB materials, slides</p>	11
IV	<p>Ability to understand soil as an ecosystem supporting ecosystems</p> <p>Learning how soil is</p>	<p>Soil resources, soil formation</p> <p>Forms of soil erosion</p> <p>Soil management</p> <p>Desertification</p>	<p>Using the soil profiles of various soils, teacher explains the nature of soils</p>	<p>Blackboard, Colour chinks, Wall charts and maps, Pictures of rills, gulleys , Soil samples</p> <p>Model of soil</p>	10

	<p>formed and the importance of soils</p> <p>Understanding how soil is being eroded and how it affects agricultural production</p> <p>Learning about the measures for preventing soil erosion</p> <p>Realising the need to conserve soils for future and manage them well for food security</p> <p>Learning how desertification occurs</p>		<p>Class discussion on natural and anthropogenic causes of soil erosion</p> <p>Class discusses in groups how drought becomes a cause of soil erosion</p> <p>Discussion continues with rains / floods as cause of heavy erosion</p> <p>Class discusses desertification in India under teacher guidance</p> <p>Field visits are arranged to see places where soil erosion is rampant, like in a mining area.</p> <p>Visits may be arranged for desert-like areas and landslides</p>	<p>layers Map of deserts</p> <p>MAB materials</p> <p>Slides.</p>	
V	<p>Ability to identify and understand the significance of land and water animals and forests</p> <p>Ability to know the classes of forests</p> <p>Ability to differentiate between forests and land and water ecosystems</p> <p>Recognising the significance of forests and water ability to understand the impacts of their destruction</p> <p>Learning about the measures of conservation and protection of land and water resources</p>	<p>Land and water ecosystems, Green Potential. The Biomes: Forest, Grassland, Desert, and mountainous Living Oceans</p>	<p>Teacher shows students the boundaries of ecosystems/ biomes on a world map</p> <p>Explanations of biomes, vegetation and animals, using pictures.</p> <p>Discussion in the class, in groups on deforestation and its effects</p> <p>A Colloquium on forests and forest management practices in India</p> <p>Visits to nearby forests to observe plants and animals in their natural surroundings</p> <p>Reports on local knowledge of plants and animals.</p>	<p>Blackboard , Colour chinks, Wall charts and maps , pictures of biomes the world over</p> <p>MAB materials</p> <p>Slides, Web search for materials on biomes and deserts.</p>	11
VI	<p>Understanding the meaning of 'industry'</p>	<p>Industries: Primary, secondary, tertiary</p>	<p>Explaining the nature and</p>	<p>Blackboard, Colour chinks</p> <p>Wall charts</p>	12

	<p>and industrial development in India</p> <p>Learning and recognising primary, secondary, tertiary and quarternary industries</p> <p>Identifying agriculture as a collection of several ecosystems</p> <p>Realising the human and cultural factors responsible for agricultural development</p> <p>Learning about the green revolution, first and the second that is being talked about</p> <p>Recognising the possibility of a location theory by concentration on von Thunen's Isolated State theory of agricultural location.</p>	<p>and quarternary industries</p> <p>Agricultural ecosystems</p> <p>Cultural and Humanfactors,</p> <p>Green revolution</p> <p>Agricultural land use and location: von Thunen</p>	<p>development of industries</p> <p>Discussion on industrial revolution and developments thereof in groups</p> <p>Students, using their general knowledge of scientific development, chat among themselves about technological innovations that made a difference to human life and living</p> <p>Teacher conducts a quiz in order judge the general knowledge of agriculture, using local examples</p> <p>Round table discussion on crops on the hills, valleys and plains</p> <p>Debate on the efficiency of green revolution versus traditional farming, guided and supervised by the teacher</p> <p>Using innovative ways, students check out the von Thunen theory</p> <p>Teachers encourage students to work on modeling (miniature) of the theory</p> <p>Students collect materials on typology of world agriculture</p>	<p>and maps , Pictures of industrial activities, including agro, mineral based and other industries</p> <p>Industrial models</p> <p>Slides, Web search for materials on industrial development in India</p> <p>Use of <a href="http://www.mapsofindia.com">www.mapsofindia.com</a></p> <p><a href="http://www.historyofindia.com">www.historyofindia.com</a></p> <p>for collecting maps and historical information on industries . Models by students to illustrate location theory</p> <p>Classification system for agriculture: local regional and national</p>	
VII	<p>Realising the importance of industrial operations, irrespective of types and sizes</p> <p>Understanding</p>	<p>Industrial ecosystems</p> <p>Functional linkage</p> <p>Input-output relations</p> <p>Criteria for siting industries of</p>	<p>Explaining what functional linkages, in fact just linkages, mean in an industrial context</p> <p>Class describes criteria for siting</p>	<p>Blackboard , colour chalks, wall charts and maps, Pictures of industries of the world over Slides</p> <p>Web search for materials on</p>	12

	<p>relationships between raw materials and industrial location</p> <p>Understanding relationships between industrial location and markets</p> <p>Ability to site industries given the understanding above</p> <p>Understanding the competitions and relations with resources and environment</p>	<p>different types</p> <p>Industrial location: Weber</p>	<p>industry, one by one and in several groups of students</p> <p>Teachers discuss and deliberate with the students about the 'triangular diagram of relationships</p> <p>Students debate on the rationale behind the Weber theory of industrial location</p> <p>Visits to local industries, especially private and government owned, for an appreciation of factors of location.</p>	<p>industries and their milieus.</p>	
VIII	<p>Recognising the importance settlements, rural and urban</p> <p>Appreciation of geographical problems, ability to resolve and regulate at the same time</p> <p>Understanding controls and ability to exercise it</p> <p>Recognising realistic elements of central place theory</p> <p>Verifying the theory with reality and see how far they do match</p> <p>Recognising unit in diversity and the ability to differentiate similarities and dissimilarities</p>	<p>Settlement systems</p> <p>Origin and development of settlements</p> <p>Rural settlements</p> <p>Urban settlements</p> <p>Central Place Theory</p>	<p>Teacher describes in many words what is settlement geography</p> <p>Explaining the history of settlement evolution and change and continuity</p> <p>Using colour pictures, teacher explains contemporary geography of Settlements.</p> <p>Settlements of the hills, plains, floodplains</p> <p>Students discuss among themselves about the forms of settlements</p> <p>Discussion of problems of urban development in groups</p> <p>Explaining the central place theory with colour pictures of contemporary service towns</p>	<p>Black board. colour chalks, wall charts and maps, pictures of biomes the world over</p> <p>Slides on rural and urban settlements</p> <p>Web search for materials on settlements and experimental cases</p>	11
IX	<p>Ability to understand that transport is the bloodline of the</p>	<p>Transport systems</p> <p>Types of transport</p> <p>People, Goods and</p>	<p>Explaining the role of the wheel in the development of</p>	<p>Blackboard, colour chalks</p> <p>Models of transport</p>	7

	<p>contemporary economy</p> <p>Understanding how is transport helping development of a country; region and local area</p> <p>Understanding the role of transport in the Indian economy</p> <p>Learning about the model of transport development</p> <p>Learning about the information explosion and exchanges</p>	<p>Container transport Information Exchanges</p>	<p>that country Describe the structure of transport using maps</p> <p>Discussion on the types/ modes of transport while showing/ exhibiting various models / toys</p> <p>Group discussion on the merits and demerits of the different types of transport</p> <p>Describing containerisation and its role in the sea trade</p> <p>Colloquium on information superhighway and the digital divide</p> <p>Students visit local bus stand and railway stations and also telecommunication centres to collect and analyse information</p>	<p>types/modes</p> <p>Wall charts and maps</p> <p>Pictures of transport the world over Slides</p> <p>Web search for materials on transport and information systems</p>	
X	<p>Understanding the implications of information explosion</p> <p>Recognising and understanding the technological breakthroughs in the era of information explosion</p> <p>Understanding the significance of technological innovations and the revolution they led to</p> <p>Recognising the value of print media, satellite images</p> <p>Appreciating the process of globalisation and how</p>	<p>Information and telecommunications Technological development</p> <p>Information Technology Information Revolution</p> <p>Information system components</p> <p>Globalisation, Liberalisation and Digital divide</p>	<p>Explaining the rapid information and telecommunication development</p> <p>Group discussion on IT, Information revolution and information system components</p> <p>Rationalising the digital divide visits to institutions of information technology in the locality</p> <p>Visit to All India Radio</p> <p>Television Station postal and Telegraph Offices</p>	<p>Blackboard, Colour chalks. Wall charts and maps , Pictures of telecommunication equipment the world over Slides on IIT development</p> <p>Web search for materials on IT and case studies</p> <p>Field visits</p>	11

	<p>it works right now</p> <p>Understanding the implications of liberalisation and digital revolution and divide</p>				
XI	<p>Understanding the working of trade, national and international</p> <p>Learning about the significance of trade in contemporary world</p> <p>Learning about the significance of trade in contemporary world</p> <p>Recognising / identifying the causes of trades</p> <p>Learning about the international trade agreements and how they affect trade of the Third World countries</p>	<p>Trade systems</p> <p>Trade Blocs</p> <p>World trade Organisation</p> <p>Trade agreements</p> <p>Trade and the Third World</p>	<p>Describing the process of trade</p> <p>Explaining how trade develops in a region, between countries</p> <p>Asking students collect information on trades that are transacted in the local area</p> <p>Marking important trade centres of the country and the world on maps</p> <p>Discussion on the usefulness of the trade blocs for themselves and for others</p>	<p>Blackboard, Wall maps, World and India</p> <p>Study materials on trade agreements</p> <p>Field visits</p>	9
XII	<p>Understanding and appreciating the notions of country, nation, government and people</p> <p>Learning how and why countries come together as socio-economic groups</p> <p>Understanding the importance of the United Nations, its purpose and perspectives</p> <p>Learning about the various activities of the UN</p> <p>Recognising why the countries of the world were/ are divided as first, second and third</p>	<p>The family nations</p> <p>Three worlds: Where did the second go?</p> <p>Country and Governance</p> <p>United Nations</p>	<p>Explaining why and how of countries, nations, governments and people, from both ideological and social perspectives</p> <p>Asking students role play a government, a community or society, and government to understand the way all work</p> <p>assignments on country groupings and presenting reports in the classroom</p> <p>Visit to local government offices</p> <p>Visit to local UN offices, embassies and consulates</p>	<p>Blackboard, Wall maps of the world, pictures from different countries</p> <p>Compact discs of information on UN and UN organisations such as the FAO, UNESCO, and UNICEF Websites of <a href="http://www.un.org">www.un.org</a>, <a href="http://www.undp.org">www.undp.org</a>, <a href="http://www.unicef.org">www.unicef.org</a> and so on</p>	9

	<p>worlds</p> <p>Learning why the second world disappeared</p>		<p>where possible; Students collect information on various countries of the Third World for a discussion at the class</p> <p>Scrapbook on different countries</p>		
XIII	<p>Understanding why a country unified suddenly broke up into several countries, only to regroup as the CIS</p> <p>Learning/looking back at the causes and consequences of the disintegration</p> <p>Understanding and appreciating the causes in ideological and sociological sense</p>	<p>Disintegration of a Country; Soviet Union History</p> <p>Geographical landscape</p> <p>Economy people and culture</p> <p>Commonwealth of Independent States: Then and Now</p> <p>Wither cold war?</p>	<p>Describing the extent of the Soviet Union using a wall map</p> <p>Scrapbook/album by collecting pictures on Soviet Russia and the CIS countries</p> <p>Visit to Russian Consulate assignments on countries and group discussions.</p>	<p>Blackboard Wall maps and hangs pictures of people different countries of erstwhile Soviet Union</p> <p>albums/Scrapbook</p> <p>Web search for information using search engines.</p>	9
XIV	<p>Understanding how the two Germanys came together and how the Berlin Wall was broken and why</p> <p>Appreciation for a people who wanted to unite and live in peace and amity</p>	<p>Two into One: The Unification of Germanys</p> <p>Berlin Wall History</p> <p>Geographical landscape</p> <p>Economy people and culture</p> <p>The Pain of Unification</p> <p>Germany: Then and Now</p>	<p>Explanations of the Germanys, especially East Germany as a country behind the curtain</p> <p>Discussions on Germany</p> <p>Students collect information, pictures on Germanys then and</p> <p>Scrapbook/album</p>	<p>Blackboard Wall maps and hangs</p> <p>Pictures of people of different countries of erstwhile Soviet Union</p> <p>Albums/Scrapbook</p> <p>Web search for information using search engines</p>	6
XV	<p>Understanding how apartheid could exist in the world</p> <p>Appreciating the compulsions of a people to stand against</p> <p>Learning about the atrocities of the apartheid regime</p>	<p>Apartheid and After: South Africa</p> <p>The Voice of people</p> <p>History</p> <p>Geographical landscape</p> <p>Economy people and culture</p> <p>Mandela and After</p> <p>The future of South Africa</p>	<p>Explaining what apartheid means to us and the South Africans</p> <p>Students role play apartheid and discuss what the black people would have felt</p> <p>Class discusses the role of Nelson Mandela and what has happened after the stepped down as President of South Africa</p> <p>Collecting pictures on South Africa</p>	<p>Blackboard Wall maps and hangs</p> <p>Pictures of people of South Africa</p> <p>Albums/Scrapbook</p> <p>Web search for information using search engines</p>	10

			Class discusses the change in the economy since the breakdown of apartheid and independence		
XVI	<p>Learning the roots of cartography and how historically the science has changed from manual to automation</p> <p>Appreciating maps and learning the skills of drawing scales</p> <p>Understanding the meaning of large and small scales</p> <p>Learning to draw contour diagrams and cross sections of relief</p> <p>Learning to draw profiles, of relief and rivers</p>	<p>Cartography Maps and scales</p> <p>Contours and cross sections Profiles: Rivers, relief</p>	<p>Knowing-doing exercises, teacher performed as illustrative actions</p> <p>Class/lab work on maps, scales, profiles</p> <p>Homework/assignments for students to complete a set of scales, contour diagrams, and profiles</p> <p>Students are asked to identify features on maps, especially top sheets, such as knoll, ridges and saddles, valleys of different descriptions</p> <p>students are asked to draw for exhibits in the classroom</p>	<p>Blackboard Demonstrations Wall hangs and display maps Precision instruments.</p>	20
XVII	<p>Ability to plan, design and carry out fieldwork</p> <p>Understanding the rudiments of fieldwork in research and practical learning</p> <p>Learning to create databases, analyse and interpret results using simple techniques</p>	<p>Fieldwork Planning field work Practising fieldwork</p> <p>New, innovative methods of fieldwork: rapid and participatory appraisals</p>	<p>Explaining what constitutes fieldwork</p> <p>Students plan and execute fieldwork with a specific purpose in mind.</p> <p>Collecting materials on various field surveys, including resources surveys and appraisals</p> <p>Executing a carefully designed fieldwork in the local area with focus on local problems</p>	<p>Black board, wall hangs Charts on steps to Field work Flip charts, field equipment</p>	20
XVIII	<p>Understanding what is remote sensing and it is actually done</p> <p>Learning various methods of remote sensing: ariel, satellite,</p>	<p>Remote Sensing Ariel, Satellite and Radar Remote sensing systems</p> <p>Use of remote sensing</p> <p>Remote sensing in</p>	<p>Explaining principles of remote sensing and types of remote sensing.</p> <p>Students are asked to look at images and make</p>	<p>Black Board, Wall hangs of images, Images for class work, Pictures of aircrafts, satellites and radars for appreciation. Web</p>	20

	<p>and radar based</p> <p>Learning skills to visually interpret images</p> <p>Learning how images can be used in resources and environment assessment</p>	<p>natural resources and environment management</p>	<p>something out of them towards an assessment</p> <p>Hands-on exercises on understanding digital data, pixels and so on.</p>	<p>search for materials on use of remote sensing analysis</p>	
--	---	---	---	---	--

Note: Two of the seven periods a week will be spent on practicals, and the rest given over to theory/class teaching. At least ten exercises in each of the two units of the practicals: XVI and XVII. The last unit has to be taught more carefully as it is on the technology of remote sensing. Expert help may be sought to do that.