

National Curriculum for
Advanced Geography
(Elective)
Grade XI-XII
2011



GOVERNMENT OF PAKISTAN
MINISTRY OF EDUCATION
ISLAMABAD

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Section 1

Introduction

Geography describes the patterns of spatial and temporal differentiation that, in turn, are governed by interaction between various variables producing a variety of natural and human phenomena on our planet Earth. The foundational concepts for understanding the nature, dynamics and impact of these variables have been incorporated in the curriculum of Grades VI, VII and VIII. Basic understanding has been provided as to how the space, time, place and nature – the material frames of daily life – are constituted and represented through human practices, not as separate elements but in relation to each other. Thus, an integrated approach has been adopted. Continuing further, in this curriculum for Grades IX and X, the spatial and temporal freedom and constraints are recognized through providing recognition of a variety of singular environments that prevail on our planet, and, how and why they differ from each other.

Human experience of space, place and time is mostly perceptive incorporating their learning. Humans, interacting with varied landscape, evolve and organize such actions that lead to emergence of different spatio-temporal structures. The plurality imbibed in the dynamics of these structures well speaks of the integration of heterogeneous elements that are spatially diverse and undergo temporal oscillations.

Geographers' examination of regional characteristics, similarities, differences, interrelations, behaviour and evolving is unique and leads to understanding of distributions, patterns and structures organized in a space. From exploration to understanding, prediction and planning, the milieu suggests a vigorous and challenging undertaking by the geographers. All these labyrinthine ideas have been incorporated in the curriculum in a way that the learners grasp them through their familiarizations with these variety phenomena and consequent enquiry that generates in their minds. This helps in their identification and understanding of the ensuring problems and the rectifying measures through application of their intellectual acumen. Thus, this wholesome and integrated

approach inculcates in the learners a natural thirst for inquiry, discovery and innovation.

Objectives

The objectives of this new curriculum of Geography are to:

- Acquaint with structures and forms emerged in various natural systems and how & why they have their distinctive attributes.
- Inculcate knowledge about the interactions between different natural systems that evolve varied natural systems and the inherent dynamics.
- Generate awareness about the use of the natural systems by the humans and the resultant structures.
- Sharpen cognizance about the inter-relationship between the Natural Environment and the Human Responses.
- Generate awareness about the key issues confronting our planet and its inhabitants and their analyses leading to suggesting possible remedial measures.
- Learn about the resources endowed to our planet and the resource types.
- Assess the human impact upon the resource quality and quantity.
- Analyze the problems and management issues relating to resource sustainability.
- Evaluate the human impact on Natural Systems and related issues.
- Highlight benefits and shortfalls associated with the Globalization and its efficacy in the socio-economic development of the people.
- Learn about Economic Based Regions and their global role.

CLASS IX

CONTENTS	STUDENT LEARNING OUTCOMES
<p>Chapter 1:</p> <p style="text-align: center;">Geography and its Domain</p> <p>1. Introduction</p> <p>2. Scope of Geography</p> <p>3. Branches of Geography (3.1) Physical Geography (3.2) Human Geography</p> <p>4. Relationship of Geography with other subjects</p> <p>5. Role of Geography in modern world</p>	<p>Students are expected to:</p> <ul style="list-style-type: none"> • Define Geography • Discuss the nature and of Geography. • Describe the main branches of Geography • Name and describe the branches of Physical Geography. • Explain the branches of Human Geography • Discuss the relation of Geography with other disciplines. • Identify and compare the basic tools of Geography:- <ul style="list-style-type: none"> o statistical data o aerial photographs o satellite data • Discuss the role of Geography in today's world and plan for the future with reference to :- <ul style="list-style-type: none"> o Resource allocation o Sustainable development o Cultural diversity

CONTENTS	LERNING OUTCOMES
<p>Chapter 2:</p> <p>Map Reading</p> <ol style="list-style-type: none"> 1. Location and Map 2. Importance of Map 3. Elements of Map 4. Types of Map 5. Role of GIS, Remote Sensing and GPS in map making 6. Practical 	<p>Students are expected to:</p> <ul style="list-style-type: none"> • Define location and explain it with reference to absolute and relative location. • Describe the importance of map. • Discuss how maps help us to understand our world. • Describe the elements of map:- <ul style="list-style-type: none"> o Scale o Direction o Legend o Longitude and Latitude • Define and classify maps. • Classify maps into different categories on the basis of scale. • Discuss the application of topographical maps • Classify maps into different categories on the basis of purpose and uses. • Interpret physical and cultural maps. • To recognise and understand the use of GIS, Remote Sensing and GPS in map making. • Transfer different kinds of information on outline maps with the help of data related to the world and Pakistan <p>Prepare a map with the help of aerial photographs/satellite images.</p>

CONTENTS	LERNING OUTCOMES
<p>Chapter 3:</p> <p>Regions of the World</p> <p>1. Introduction about the Region</p> <p>2. Classification of Regions</p> <p> (2.1) Physical Regions</p> <p> (a) Physiographic Regions</p> <p> (b) Climatic Regions</p> <p> (c) Vegetation based Regions</p> <p> (d) Geological Regions</p> <p> (2.2) Cultural Regions</p> <p> (a) Economic Regions</p> <p> (b) Ethnic Regions</p> <p> (c) Political Region</p>	<p>Students are expected to:</p> <ul style="list-style-type: none"> • Define the region and describe the concept of the world region. • Describe the major classifications of regions. • Describe the types and importance of the following physical regions. <ul style="list-style-type: none"> (a) Physiographic Regions (b) Climatic Regions (c) Vegetation based Regions • Describe the types and importance of the following cultural Regions <ul style="list-style-type: none"> a) Economic Regions (describe the Economic Regions on the basis of agriculture, industry, mining, More and Less Developed Regions) b) Ethnic Regions c) Political Regions

CONTENTS	LERNING OUTCOMES
<p>Chapter 4:</p> <p style="text-align: center;">Life in Desert</p> <ol style="list-style-type: none"> 1. Introduction 2. Distribution <ol style="list-style-type: none"> a) Distribution of deserts in the world b) Distribution of deserts in Pakistan 3. Physical conditions <ol style="list-style-type: none"> a) Climate b) Flora and Fauna c) Water resources 4. Socio-Economic Conditions <ol style="list-style-type: none"> a) Population & Settlement b) Economic activities c) Water harvesting d) Living characteristics e) Recent developments 5. Problems and Management 	<p>Students are expected to:</p> <ul style="list-style-type: none"> • Describe the salient features of a desert. • Identify the major deserts of the world and Pakistan on map. • Explain the climatic conditions of different kinds of deserts including tropical and tempera. • Describe the flora and fauna of the deserts. • Describe the water resources in the deserts. • Describe in detail the socio-economic conditions in deserts e.g. dwelling, dress, drinking water, health, accessibility, and education. • Describe the population distribution in deserts. • Compare the development in the deserts of Middle East and Pakistan. • Discuss the problems (scarcity of water, range of temperature) of desert environment. • Discuss the movement of nomads in search of water and pastures. Describe the measures that can be taken to minimize the problems in deserts. • Discuss the harsh realities of life faced by the people of Pakistan in deserts.

CONTENTS	LERNING OUTCOMES
<p>Chapter 5:</p> <p style="text-align: center;">Life in Mountains</p> <ol style="list-style-type: none"> 1. Introduction 2. Distribution <ol style="list-style-type: none"> a) Global distribution of mountains b) Distributions of mountains in Pakistan 3. Physical conditions <ol style="list-style-type: none"> a) Climate (humid and arid) b) Flora and fauna c) Water Resources 4. Socio-economic conditions <ol style="list-style-type: none"> a) Living characteristic b) Recent development 5. Problems and Management 	<p>Students are expected to:</p> <ul style="list-style-type: none"> • Describe the salient features of high altitudes. • Identify the major mountain ranges of the world and Pakistan on a map. • Describe the climatic conditions of mountainous regions. • Describe the flora and fauna of high altitudes. • Describe the water resources of mountainous region e.g. glaciers, rivers, lakes and ground water. • Explain in detail the socio-economic condition in mountainous areas, e.g. dwelling, dress, drinking water, health, accessibility, and education. Discuss seasonal migration • Discuss the problems of high altitudes; environment, accessibility, deforestation and mass wasting. • Describe the measures that can be taken to minimize these problems.

CONTENTS	LERNING OUTCOMES
<p>Chapter 6: Life in Rainforests</p> <ol style="list-style-type: none"> 1. Introduction 2. World distribution 3. Physical conditions <ol style="list-style-type: none"> a) Climate b) Flora and fauna 4. Socio-economic conditions <ol style="list-style-type: none"> a) Population & settlements b) Economic activities c) Recent developments 5. Problems and Management 	<p>Students are expected to:</p> <ul style="list-style-type: none"> • Describe life in a Tropical Rainforest. • Identify the Tropical Rainforests of the world on a map. • Describe the climatic conditions of the Rainforest. • Describe the flora and fauna of the Rainforest. • Explain in detail the Socio-economic conditions in rain forest areas e.g. dwelling, dress, accessibility, drinking water, health and education • Explain the kind of dwelling required in Rainforests. • Discuss the problems of Rainforest environment (accessibility, excessive humidity, insect bites, etc). • Describe the measures that can be taken to minimize these problems.

CONTENTS	LERNING OUTCOMES
<p>Chapter 7: Life in Polar Regions</p> <ol style="list-style-type: none"> 1. Introduction 2. Location 3. Physical conditions <ol style="list-style-type: none"> a) Climate b) Flora and fauna 4. Socio-economic conditions <ol style="list-style-type: none"> a) Population & settlements b) Living characteristics c) Recent developments 5. Problems and Management 	<p>Students are expected to:</p> <ul style="list-style-type: none"> • Describe the salient features of the Polar Regions. • Identify the Polar regions of the world on a map. • Describe the climatic conditions of the Polar Regions. • Describe the fauna of the Polar Regions. • Explain in detail the socio-economic conditions in polar regions e.g. dress, dwelling, drinking water, accessibility, health, and education <ul style="list-style-type: none"> o Customs and traditions o Recent developments • Explain the kind of dwelling required in polar regions. • Discuss the problem of the Polar regions. • Describe the measures that can be taken to minimize the problems. • Differentiate between North and South poles with particular emphasis on fauna.

CONTENTS	LERNING OUTCOMES
<p>Chapter 8:</p> <p>Life in Coastal Environment</p> <ol style="list-style-type: none"> 1. Introduction 2. Physical condition <ol style="list-style-type: none"> a) Climate b) Flora and fauna c) Marine Resources 3. Socio-economic conditions <ol style="list-style-type: none"> a) Population and settlements b) Economic activities c) Living Characteristics d) Recent developments 4. Problems and Management 	<p>Students are expected to:</p> <ul style="list-style-type: none"> • Describe the salient features of coastal environment. • Explain the climatic conditions of coastal environment in Tropical and Temperate regions. • Describe the flora and fauna of the coastal environment of Tropical and Temperate regions. • Explain in detail the socio-economic conditions in Tropical and Temperate Environment e.g. dress, dwelling, drinking water, accessibility, health, and education. • Discuss the trade and fishing as the main activity of port cities. • Discuss the problems of coastal environment (marine pollution, mangroves clearance, land degradation, and rising sea level) • Describe the measures that can be taken to minimize these problems.

CONTENTS	LERNING OUTCOMES
<p>Chapter 9:</p> <p>Life in Plains</p> <ol style="list-style-type: none"> 1. Introduction 2. Major Plains of the World 3. Plains of Pakistan 4. Physical condition <ol style="list-style-type: none"> a) Climate diversity b) Flora and Fauna c) Water Resources d) Soil 5. Socio-economic conditions <ol style="list-style-type: none"> a) Activities b) Living Characteristics c) Recent developments 6. Problems and Management 	<p>Students are expected to:</p> <ul style="list-style-type: none"> • Define Plain • Locate and identify the major Plains on a world map. • Identify the major Plains of Pakistan. • Describe the salient features of Plain environment. • Describe the climate of plain in Temperate and Tropical regions. • Describe the flora and fauna of Plains in Tropical and Temperate regions. • Describe the soil characteristics in Plains. • Explain in detail the socio-economic activities in plain areas, e.g. dress, dwelling, drinking water, accessibility health, and education. • Recent developments • Discuss the measures that can be taken to minimize the problem caused by water logging and salinity in Pakistan. • Describe the measures that can be taken to minimize the damages caused by flooding in Pakistan.

CONTENTS	LERNING OUTCOMES
<p>Chapter 10:</p> <p style="text-align: center;">Climatic Hazards and their Mitigation</p> <ol style="list-style-type: none"> 1. Introduction 2. Cyclones 3. Thunder storms, hailstorms and sleet 4. Heat Waves/Cold waves 5. Floods 6. Droughts 	<p>Students are expected to:</p> <ul style="list-style-type: none"> • Define the Climatic Hazards. • Describe the destruction caused by the Tropical Cyclone in different parts of the World. • Discuss the problems caused by Temperate Cyclone in Temperate Region. • Discuss the damage caused by tornadoes in different parts of the World. • Describe the measures that can be taken to minimize the destruction caused by each type of Cyclone. • Describe the possible damages caused by Thunderstorms, hailstorms and sleet. • Discuss the impact of Heat Wave and its mitigation measures. • Discuss the impact of Cold Wave and its mitigation measures. • Describe the problems caused by flooding and its mitigation methods. • Discuss the problems caused by the drought. • Discuss the methods that can be used to counter drought conditions.

CLASS X

CONTENTS	LERNING OUTCOMES
<p>Chapter 1:</p> <p>Resource and their Types:</p> <ol style="list-style-type: none">1. Introduction2. Types of Resources<ol style="list-style-type: none">a. Renewable Resourcesb. Non-Renewable Resourcesc. Perpetual Resources3. Human impact on Resources (Renewable and Non-Renewable):<ol style="list-style-type: none">a) Population explosionb) Technological Development4. Future prospects and conservation of Resources.	<p>Students are expected to:</p> <ul style="list-style-type: none">• Define resources and their types.• Define renewable resources and their types.• Define non-renewable resources and their types.• Define perpetual resources. • Discuss the impact of human population on resources (consumption and generation) with reference to the LDCs (less developed countries) MDCs (more developed countries) of the World.• Explain how technology is improving generation of renewable resources. • Discuss the future prospects of these resources.• Describe the measures that cab be taken to conserve resources like soil, water, mineral resources and forests, etc.

CONTENTS	STUDENT LEARNING OUTCOMES
<p>Chapter 2:</p> <p style="text-align: center;">Energy Resources</p> <p>1. Introduction</p> <p>2. Non-Renewable Energy Resources</p> <p> a) Oil</p> <p> i. Distribution</p> <p> ii. Trade</p> <p> b) Coal</p> <p> i. Distribution</p> <p> ii. Trade</p> <p> c) Natural Gas</p> <p> i. Distribution</p> <p> ii. Trade</p> <p> d) Nuclear Energy</p> <p> e) Fuel Wood</p> <p>3. Renewable Energy Resources:</p> <p> a) Hydro Electric Power</p> <p> b) Solar Energy</p> <p> c) Wind Energy</p> <p> d) Geo-Thermal Energy</p> <p> e) Bio-Gas Energy</p> <p> f) Tidal Energy</p> <p>4. Energy situation in Pakistan.</p>	<p>Students are expected to:</p> <ul style="list-style-type: none"> • Define Energy resources • Discuss Oil as an energy resource and explain its distribution and trade. • Discuss Coal as an energy resource and explain its distribution and trade. • Discuss Natural Gas as an energy resource and also explain its distribution and trade. • Discuss the Nuclear Energy and its importance for future. • Discuss Fuel Wood as an energy resource in rural areas. • Discuss hydroelectric power, and describe its importance. • Discuss Solar Energy and its importance. • Discuss Wind Energy and its importance. • Discuss Geo-Thermal Energy and its importance. • Discuss Bio-Gas Energy and its importance. • Describe Tidal Energy and its importance. • Explain energy situation in Pakistan.
CONTENTS	STUDENT LEARNING OUTCOMES

<p>Chapter 3: Water Resources</p> <ol style="list-style-type: none"> 1. Importance of Water. 2. Glaciers 3. Fresh Water <ol style="list-style-type: none"> a) Rain fall b) Surface Water c) Ground Water 4. User of water <ol style="list-style-type: none"> i. Domestic ii. Agricultural iii. Industrial 5. Water resource problems and management. 	<p>Students are expected to:</p> <ul style="list-style-type: none"> • Discuss the importance of water as a life sustaining resource. • Discuss the importance of Glaciers as a source of water. • Discuss rain as a major resource of fresh water. • Describe Fresh water and its types. • Discuss surface water as a major resource of fresh water give examples of major rivers and lakes of the world and their usage. • Describe Ground water and its quality (Sweet and brackish) and its varying depths • List different uses of water. • Explain various uses of water for domestic purpose, agriculture purpose and industrial purpose. • Discuss means of irrigation in semi-arid and arid climate with special reference to Pakistan. • Discuss the shortage of water for agriculture in the semi-arid and arid climate and its conservation strategies. • Describe the shortage of ground water in the urban areas in the semi arid and arid climates and its management.
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CONTENTS	STUDENT LEARNING OUTCOMES
<p>Chapter 4:</p> <p>Mineral Resources</p> <ol style="list-style-type: none"> 1. Introduction. <ul style="list-style-type: none"> o Types of minerals 2. Metallic minerals: <ul style="list-style-type: none"> o Important metallic minerals and their uses. 3. Non-metallic, minerals: <ul style="list-style-type: none"> o Non-metallic minerals and their uses. 4. Extraction and Management. 	<p>Students are expected to:</p> <ul style="list-style-type: none"> • Define the mineral resources and their major types. • Define the metallic minerals and their types. • Discuss the importance and uses of metallic minerals. • Define the non-metallic minerals and their types. • Discuss the importance and uses of non-metallic minerals. • Discuss mineral resources extraction

CONTENTS	STUDENT LEARNING OUTCOMES
<p>Chapter 5:</p> <p>Agriculture and Livestock Resources</p> <ol style="list-style-type: none"> 1. Introduction 2. Agricultural Resources <ol style="list-style-type: none"> a) Cereal Crops <ol style="list-style-type: none"> i. Wheat ii. Rice iii. Corn iv. Others b) Non-Cereal Crops <ol style="list-style-type: none"> i. Cotton ii. Tea iii. Sugar-cane iv. Others c) Fruits & vegetables 3. Livestock Resources: <ol style="list-style-type: none"> i. Dairy Farming ii. Goat/Sheep Farming iii. Poultry Farming iv. Fish Farming v. Silk Farming 4. Problems of agriculture and livestock farming sectors. 	<p>Students are expected to:</p> <ul style="list-style-type: none"> • Define and discuss agricultural land and livestock as renewable resources. • Describe agricultural resources and their major types. • Discuss cereal crops (Wheat, Rice, Corn, etc.) as a main source of staple food, their importance and uses. • Discuss Non-cereal crops (Cotton, Tea, Sugar-cane etc.) as main cash crops, their importance and uses. <p>Discuss Plantations, Fruit and Vegetable farming, their importance and uses.</p> <ul style="list-style-type: none"> • Discuss the importance of Livestock resources (Dairy Farming, Goat/Sheep Farming, Poultry Farming, Fish Farming and Silk Farming). • Discuss the problems of agriculture and livestock farming (capital, technology, management and disease).

CONTENTS	STUDENT LEARNING OUTCOMES
<p>Chapter 6:</p> <p>Industrial Resources</p> <ol style="list-style-type: none"> 1. Introduction 2. Locational factors. 3. Type of industry. <ol style="list-style-type: none"> a) Large Scale Industry. b) Small Scale Industry c) Cottage industry 4. Industrial Problems and Management. 	<p>Students are expected to:</p> <ul style="list-style-type: none"> • Define the Industry as resource. • Discuss locational factors for the establishment of the industries (raw material, capital, labour, market, entrepreneurship, communication network, etc) . • Define and describe the major types of industries. • Describe large-scale industry as a resource with examples. • Describe small-scale industry as a resource with examples. • Describe cottage industry as a resource with examples. • Describe the problems faced by industries.

CONTENTS	STUDENT LEARNING OUTCOMES
<p>Chapter 7:</p> <p>Human Resources</p> <ol style="list-style-type: none"> 1. Define human Resources 2. World Population <ul style="list-style-type: none"> o Distribution and Structure 3. Evolution of Technology 4. Economic Activities: <ol style="list-style-type: none"> a) Primary b) Secondary c) Tertiary d) Quaternary e) Quinary 5. Role of Human Resources in the Economic Development 6. Resources and Migration 7. Human Resources Management <ol style="list-style-type: none"> a) Education and skill b) Health 	<p>Students are expected to:</p> <ul style="list-style-type: none"> • Define human resources • Describe world population distribution and structure. • Describe evolution of technology and its role in the development of resources. • Discuss different types of Economic Activities related to production and Services (Primary, Secondary, Tertiary, Quaternary and Quinary). • Discuss the economic Development and Underdevelopment of countries with respect to their Human resources. • Discuss human migration based on economic factors. • Describe Human Resource Management like <ul style="list-style-type: none"> ■ Education and skills ■ Health.

CONTENTS	STUDENT LEARNING OUTCOMES
<p>Chapter 8:</p> <p style="text-align: center;">Biomes:</p> <p>1. Introduction of Biomes</p> <p>2. Major Biomes</p> <p style="padding-left: 20px;">a) Tropical Rainforests</p> <p style="padding-left: 20px;">b) Tropical Savannas</p> <p style="padding-left: 20px;">c) Desert</p> <p style="padding-left: 20px;">d) Mediterranean Scrub</p> <p style="padding-left: 20px;">e) Temperate grassland</p> <p style="padding-left: 20px;">f) Temperate Forrest</p> <p style="padding-left: 20px;">g) Northern Coniferous Forest/Taiga</p> <p style="padding-left: 20px;">h) Tundra</p> <p>3. Bio-diversity of Biomes</p> <p style="padding-left: 20px;">Endangered species</p> <p style="padding-left: 40px;">i. Plants</p> <p style="padding-left: 40px;">ii. Animals</p>	<p>Students are expected to:</p> <ul style="list-style-type: none"> • Define biomes and their major types • Describe the Tropical rainforest biomes, their distribution, environment and importance. • Describe the distribution and environment of deserts. • Describe the Tropical Savannas, their distribution, environment and importance • Describe the Temperate Grasslands, their environment and importance. • Describe the Temperate Forests, their distribution, environment and importance. Discuss the Importance of Grasslands biomes for wild life. • Discuss the Mediterranean Scrub biomes, their distribution, environment and importance. • Discuss the northern Coniferous Forest/Taiga biomes, their distribution, environment and importance. • Discuss the Tundra biomes, their distribution, environment and importance. • Define Bio-diversity • Discuss the endangered species of plants and animals in these biomes.

CONTENTS	STUDENT LEARNING OUTCOMES
<p>Chapter 9:</p> <p>Human Impact on Natural Systems:</p> <ol style="list-style-type: none"> 1. Introduction 2. Physical Environment and Cultural Impact 3. Impact on atmosphere <ol style="list-style-type: none"> a) Air Pollution b) Ozone layer depletion c) Global warming d) Acid Rain 4. Impact on Land <ol style="list-style-type: none"> a) Deforestation b) Soil Erosion c) Desertification 5. Impact on water <ol style="list-style-type: none"> a) Supply b) Quality 6. Sustainable resource management 	<p>Students are expected to:</p> <ul style="list-style-type: none"> • Discuss the human impact on natural systems. • Discuss Physical Environment and its impact on culture. • Explain human impact on atmosphere with reference to: <ul style="list-style-type: none"> Air Pollution Ozone layer depletion Global warming Acid Rain • Discuss human impact on land with reference to: <ul style="list-style-type: none"> Deforestation Soil Erosion Wastes • Discuss the Human stress on water with reference to its supply and quality. • Describe sustainable resource management in the natural system.

CONTENTS	STUDENT LEARNING OUTCOMES
<p>Chapter 10:</p> <p>Globalization and Socio-economic Development:</p> <ol style="list-style-type: none"> 1. Introduction 2. Globalization of the world. 3. Bases of Socio-economic development <ol style="list-style-type: none"> i. good governance ii. literacy and skills iii. infrastructure development iv. health v. trade vi. technological advancement 4. Regional Organizations <ol style="list-style-type: none"> a) SAARC b) ECO c) ASEAN d) EU 5. Pakistan in Global Perspective 	<p>Students are expected to:</p> <ul style="list-style-type: none"> • Discuss the concept of Globalization, Society and Economy. • Discuss Globalization of world the basis of Technology and Communication. • Discuss the basis of socio-economic development with reference to good governance, literacy and skills infrastructure development, health, trade and technological advancement. • Describe the structure and functions of Regional Economic Organizations: <ul style="list-style-type: none"> SAARC ECO ASEAN EU • Discuss the impact of Globalization on Pakistan.

CLASS XI

CONTENTS	STUDENT LERNING OUTCOMES
<p>Chapter 1:</p> <p>Physical Geography:</p> <ol style="list-style-type: none">1. Definition, history and scope of Geography2. Introducing Physical Geography3. Branches of Physical Geography4. Universe, solar system and the Earth.5. Land and water distribution	<p>Students are expected to:</p> <ul style="list-style-type: none">• Define geography and its scope.• Discuss the historical development of geography.• Define Physical Geography and explain its importance.• Describe the main branches of Physical Geography.• Define Universe and its components.• Interpret the sun as a star and source of energy for planets• List other members of the Solar System and describe them.• Describe the shape & size of the earth• Explain the rotation of the earth• Evaluate the revolution of the earth and seasonal change.• Compare the phenomenon of solar and lunar eclipses with diagrams. <p>Describe the land and water distribution on the earth's surface.</p>

CONTENTS	LERNING OUTCOMES
<p>Chapter 2: Structure of the Earth and Lithosphere:</p> <ol style="list-style-type: none"> 1. Internal structure of the Earth 2. Plate Tectonics 3. Volcanism 4. Earth quakes 5. Rocks 	<p>Students are expected to:</p> <ul style="list-style-type: none"> • Explain the interior of the earth • Describe the theories regarding the earth's interior. • Interpret the structure and composition of the earth's interior. • Explain the concept of Continental Drift. • Define Plate Tectonics. • Enumerate the major & minor plates and their distribution. • Interprets the fault lines. <ul style="list-style-type: none"> i. Convergence ii. Divergence iii. Lateral plate contract. • Define process of volcanism and its types. • Trace the distribution of volcanoes on the world map. • Define an earthquake • Evaluate the evidences and causes of an earthquake and explain the following phenomenon, i.e. focus, epicentre, Richter scale, Seismograph etc • Describe the types of seismic waves • Trace the major zones of earthquakes on the world map. • Define rock. • Describe major types of rocks, according to their mode of formation. • Define igneous rocks, types and their characteristics <ul style="list-style-type: none"> i. Intrusive ii. Extrusive • Describe Sedimentary rocks types and their characteristics <ul style="list-style-type: none"> i. Mechanically formed ii. Chemically formed • Describe metamorphic rocks, Types and their characteristics.

CONTENTS	LERNING OUTCOMES
<p>Chapter 3:</p> <p>Landforms:</p> <ol style="list-style-type: none"> 1. Major Land forms <ol style="list-style-type: none"> I. Mountains II. Plateaus III. Plains 2. Denudation. <ol style="list-style-type: none"> i. Weathering ii. Mass Wasting 3. Landforms made by river 4. Land forms made by glaciers 5. Land forms made by wind 6. Land forms made by waves 	<p>Students are expected to:</p> <ul style="list-style-type: none"> • Define landforms • Describe mountain and it's types. • Describe plateau and its types. • Describe plains and their types. • Define denudation • Describe weathering process and its types. • Describe Mass wasting as a process and its types. • Describe river as an agent of erosion, transportation and deposition and associated landforms. • Describe the erosional and depositional landforms made by valley and continental glaciers. • Describe wind as an agent of erosion, transportation and deposition and associated landforms. • Define waves and describe the erosional and depositional landforms made by waves.

CONTENTS	LERNING OUTCOMES
<p>Chapter 4:</p> <p>Atmosphere:</p> <ol style="list-style-type: none"> 1. Introduction <ol style="list-style-type: none"> i) Composition of atmosphere ii) Structure of atmosphere 2. Atmosphere Temperature. <ol style="list-style-type: none"> i) Insolation ii) Horizontal distribution of temperature iii) Vertical distribution of temperature 	<p>Students are expected to:</p> <ul style="list-style-type: none"> • Define Atmosphere • Describe the composition of Atmosphere • Describe the layered structure of Atmosphere • Define Temperature • Describe Insolation • Explain horizontal temperature distribution over the earth's surface. • Explain vertical distribution of temperature

CONTENTS	LERNING OUTCOMES
<p>Chapter 5:</p> <p>Global Circulation:</p> <ol style="list-style-type: none"> 1. Atmospheric pressure. 2. Pressure distribution over the earth surface. 3. Winds <ol style="list-style-type: none"> I. Relationship between pressure and wind. II. Planetary winds III. Seasonal winds IV. Local winds 4. Air masses and their types. 5. Fronts and their types. 6. Cyclones and their types. 	<p>Students are expected to:</p> <ul style="list-style-type: none"> • Define Atmospheric pressure • List the instruments used to Measure the Air pressure • Explain the location of pressure belts on the map. • Describe the relationship between pressure and wind • Explain the general pattern of the planetary winds. • Describe the seasonal wind with reference to South Asia draw the direction of the seasonal wind on South Asian map. • Describe the local winds with the help of diagram. • Define Air Masses and their types • Define Fronts and their types • Define cyclone. • Describe main types of cyclones. • Explain the areas, weather and other

- characteristics of temperate Cyclones.
- Explain the areas, weather and other characteristics of Tropical Cyclones.

CONTENTS	LERNING OUTCOMES
<p>Chapter 6:</p> <p>Atmospheric Moisture:</p> <ol style="list-style-type: none"> 1. Humidity 2. Clouds 3. Precipitation 	<p>Students are expected to:</p> <ul style="list-style-type: none"> • Define Humidity • Describe the types of Humidity • Describe the major types of clouds and their formation. • Define precipitation • Describe the types of precipitation.

CONTENTS	LERNING OUTCOMES
<p>Chapter 7:</p> <p>Oceanic Movements:</p> <ol style="list-style-type: none"> 1. Currents 2. Tides 3. Waves 	<p>Students are expected to:</p> <ul style="list-style-type: none"> • Define ocean currents • Describe the major causes of ocean currents • Show the ocean currents on a world map • Describe the currents of Atlantic, Pacific and Indian Ocean • Define Tides. • Explain the types of tides • Define and explain waves

CONTENTS	LERNING OUTCOMES
<p>Chapter 8:</p> <p style="text-align: center;">Climatic Regions:</p> <ol style="list-style-type: none"> 1. Introduction 2. Major Climatic Region <ol style="list-style-type: none"> i. Equatorial Climatic Region ii. Tropical Climatic Region iii. Temperate Climatic Region iv. Polar Climatic Region 	<p>Students are expected to:</p> <ul style="list-style-type: none"> • Define Climatic region • Illustrate the climatic regions on the map • Describe Equatorial Climatic Regions • Describe Tropical Climatic Regions • Describe Temperate Climatic Regions • Describe the Polar Climatic Regions

CONTENTS	LERNING OUTCOMES
<p>Chapter 9:</p> <p style="text-align: center;">Practical Geography:</p> <ol style="list-style-type: none"> 1. Location 2. Directions <ul style="list-style-type: none"> • Methods of finding directions 3. Scale 4. Introduction to GIS, GPS and Remote Sensing. 5. Relief features <ul style="list-style-type: none"> • Methods of showing relief 6. Conventional Signs. 	<p>Students are expected to:</p> <ul style="list-style-type: none"> • Define location • Define Direction • Explain methods of finding direction. • Define scale • Explain the types of scale • Measure distance between two points by using map scale • Define G.I.S, G.P.S. & Remote sensing. • Use of GIS, GPS and Remote Sensing • Draw relief features by using different methods. • Explain the symbols used for the representation of physical and human features on the map.

CLASS XII

CONTENTS	LERNING OUTCOMES
<p>Chapter 1: Human Geography:</p> <ol style="list-style-type: none">1. Definition and scope of Human Geography.2. Branches of Human Geography3. Earth as home for human being	<p>Students are expected to:</p> <ul style="list-style-type: none">• Define Human Geography• Explain the scope of Human Geography• Describe the branches of Human Geography• List the conditions that make the earth as a habitable planet.• Describe the factors that shape the Pattern of Man-environment interaction with reference to<ul style="list-style-type: none">o Climateo Physical landscapeo Watero Forestso Living world

CONTENTS	LERNING OUTCOMES
<p>Chapter 2:</p> <p>Population:</p> <ol style="list-style-type: none"> 1. Density and distribution. 2. Population growth 3. Structure and composition of population. <ul style="list-style-type: none"> ■ Age group, ■ Male-Female ratio. 4. Population Change. <ol style="list-style-type: none"> i. Natural increase (Births/Deaths) ii. Migration (Immigration/Emigration) 5. Types of Migration <ul style="list-style-type: none"> ■ Factors of Migration 	<p>Students are expected to:</p> <ul style="list-style-type: none"> • Define density • Explain the dense, moderate and thinly populated areas of the world. • Describe the high & low density areas of Pakistan and illustrate them on the map. • Explain the high and low growth rate areas of the world. • Explain the age groups, Male/Female ratio of Population of MDCs and LDCs with appropriate examples. • Define migration, with its types. • Describe the Change in population with respect to Natural increase & migration. • Explain the factors (Push & Pull) of migration.

CONTENTS	LERNING OUTCOMES
<p>Chapter 3:</p> <p>Human Settlements:</p> <ol style="list-style-type: none"> 1. Introduction 2. Rural settlements. <ol style="list-style-type: none"> i. Nucleated and Dispersed. ii. Forms according to shape. 3. Urban settlements. <ol style="list-style-type: none"> i. Functions ii. Urban Hierarchy 4. World Urbanization 	<p>Students are expected to:</p> <ul style="list-style-type: none"> • Define Human settlements. • Identify the types of settlements. • Civilizations. • Explain in detail the rural settlements and their types • Describe the functions of Urban settlements. • Explain the concept of Urban hierarchy (hamlet to Mega city) • Explain the main features and problems of large cities. • Locate important cities on the map.

CONTENTS	LERNING OUTCOMES
<p>Chapter 4:</p> <p>Economic Activities:</p> <ol style="list-style-type: none"> 1. Introduction 2. Types of Economic activities <ol style="list-style-type: none"> i. Primary activities ii. Secondary activities iii. Tertiary activities iv. Quaternary activities v. Quinary activities 3. World Trade Organization and Pakistan 	<p>Students are expected to:</p> <ul style="list-style-type: none"> • Define Economic Activities • Explain the various types of human economic activities (Primary, Secondary, Tertiary, Quaternary, and Quinary) related to production and services. • Explain Pakistan's trade and W.T.O implementation.

CONTENTS	LERNING OUTCOMES
<p>Chapter 5:</p> <p>Political Geography:</p> <ol style="list-style-type: none"> 1. Basic concepts of Nation, State, frontiers and boundaries 2. Geo-Strategic position of Pakistan 	<p>Students are expected to:</p> <ul style="list-style-type: none"> • Define Nation, State, Frontiers and boundaries. • Highlight the importance of geo-strategic position of Pakistan. • Sketch out Pakistan and its neighbouring countries.

CONTENTS	LERNING OUTCOMES
<p>Chapter 6:</p> <p>Natural Hazards:</p> <ol style="list-style-type: none"> 1. Types of natural hazards 2. Risks 3. Awareness and Management 	<p>Students are expected to:</p> <ul style="list-style-type: none"> • Define Natural Hazards. • Describe flooding, drought, volcanism, earthquakes, Cyclones, etc as Natural Hazards. • Identify the area of 8th October 2005 earthquake in Pakistan on the map of Pakistan. • Awareness about Natural Hazards and their management.

CONTENTS	LERNING OUTCOMES
<p>Chapter 7:</p> <p>Practical Geography:</p> <p>1. Statistical Diagrams</p> <p>2. Distributional Maps</p> <p>3. Major types of projections</p>	<p>Students are expected to:</p> <ul style="list-style-type: none"> • Recognize different types of statistical Diagrams. • Describe how statistical Data can be placed in graphs (Line & Bar) and charts (Pie). • Describe the utility of distributional maps. • Recognize the different methods of showing statistical data on the maps. • Prepare the population map of Pakistan by using any statistical method. • Define Projection. • Describe the major types of Projection and their uses and properties. • Draw various types of projections. <ul style="list-style-type: none"> o Cylindrical o Conical o Zenithal.

CHAPTER WISE PERCENTAGE WEIGHTAGE (IX-X)

Grade-IX			
No	Chapter	Weightage	No. of Periods
1.	Geography and its domain	10%	
2.	Map Reading	10%	
3.	Regions of the World	10%	
4.	Life in Deserts	10%	
5.	Life in Mountains	10%	
6.	Life in Rain Forests	10%	
7.	Life in Polar Regions	10%	
8.	Life in Coastal Environment	10%	
9.	Life in Plains	10%	
10.	Climatic Hazards and their Mitigation	10%	
Total:		100%	

Grade-X			
S. No	Chapter	Weightage	No. of Periods
1.	Resources and their Types	10%	
2.	Energy Resources	15%	
3.	Water Resources	10%	
4.	Mineral Resources	05%	
5.	Biomes	10%	
6.	Agricultural and Livestock Resources	15%	
7.	Industrial Resources	10%	
8.	Human Resources	10%	
9.	Human impact on Natural Systems	10%	
10.	Globalization and Socio-Economic Development	05%	
Total:		100%	

CHAPTER WISE PERCENTAGE WEIGHTAGE (XI-XII)

Grade-XI			
S. No	Chapter	Weightage	No. of Periods
1.	Physical Geography and. its Branches	10%	
2.	Lithosphere	15%	
3.	Land Forms	10%	
4.	Atmosphere	10%	
5.	Global Circulation	10%	
6.	Atmospheric Moisture	10%	
7.	Ocean Movement	10%	
8.	Climatic Regions	10%	
9.	Practical Geography	15%	
Total:		100%	

Grade-XII			
S. No	Chapter	Weightage	No. of Periods
1.	Human Geography	15%	
2.	Population	20%	
3.	Human Settlements	15%	
4.	Economic Activities	15%	
5.	Political Geography	10%	
6.	Natural Hazards	10%	
7.	Practical Geography	15%	
Total:		100%	

Instructional Strategies

Learning of Geography should focus on meaningful participatory environment, both by instructor and students. The participation in the class should be able to understand, interpret, analyse and synthesis geographical information with the help of various tools and techniques like maps, table graphs, G.I.S. (Geographical Information Systems) R.S (Remote Sensing). GPS (Global Positioning Systems) and texts to recognize Pattern and solve problems at local and international levels. In the process the participants should be able to appreciate the spatial and temporal variations in different physical and Human environments and the interaction between the two.

Teachers need to ensure whatever students learn prepares them not only to do well in examinations, but successfully face the challenges of a global society, and develop their social consciousness to the extent that they become the agents of social change. In order to achieve this objective teachers need to adopt innovative instructional strategies.

These strategies should intellectually engage the students of varying degrees of interests, abilities and styles of learning, strengthen their power of reasoning and stimulate their active participation through different activities like maps, diagrams and exercises.

There are many reasons for using a variety of instructional strategies. Students own active intellectual engagement in the learning process increases their retention of their learning. Living in the information age where knowledge is growing exponentially and facts are available at the click of a button students need to learn "how to learn". Many instructional strategies besides facilitating students, academic learning also aid development of number of skills and values preparing them for the varied roles they will play in today's society. Also, in any class of students there will be ranges of interests, abilities and styles of learning. Varying the teaching strategies will address these differences allowing all children to learn.

Lecture

1. Lectures must be well-planned.
2. Problem-oriented and accompanied by the use of appropriate maps, models, diagrams, transparencies, photos, graphics, charts, animations, movies etc. These can also be displayed by an overhead or multimedia projector if possible and wherever available.
3. Lectures should not be one sided. In order to make a lecture interactive and keep students engaged, the teacher should from time to time ask questions.
4. The students should also be encouraged to ask questions which may be answered by the teacher or directed to other students inviting them to answer.
5. This strategy is highly effective as students participate equally, practice social

skills and individually demonstrate what they have learned from their partners.

Discussion

Discussion is yet another important form of group interaction which yields a number of benefits to the students.

1. It increases their knowledge of the topic and provides them with an opportunity to explore a variety of views which in turn help them to examine their assumptions in the light of different perspectives.
2. It also strengthens their communicative skills and familiarizes them with the art of academic discourse.
3. In planning a discussion, the teacher should review the material and choose such a topic which builds upon the constants the students have recently covered and allows them enough room to come up with innovative ideas.
4. It should not be merely a repetition of the facts they have learned from their books or the teacher's lecture.
5. All students should be given equal opportunity to participate and contribute in the discussion and by putting probing questions, such as "why do you think so?" and "Can you elaborate further?" etc., they should be encouraged to come up with appropriate answers.
6. All discussions should be summarized briefly and precisely, identifying the questions for further inquiry and discussion.

Cooperative Learning /Students Control Learning Methods.

Cooperative learning is one of the most important strategies in which students work together in small groups or pairs to maximize their own and each other's learning. Improved self-esteem, increase-task time, increase higher order thinking, better understanding of material, ability to work in collaboration with others and improve attitude towards school and teachers. It would create opportunities for students to use and master social skills necessary for living productive and satisfying lives.

Inquiry/Investigation

Inquiry/investigations is a process of framing questions, gathering and analyzing information and drawing conclusions from it. There are a number of steps in conducting an inquiry for example:

1. The teacher may choose a topic and have students frame inquiry questions(s) based on the topic for instance. How various life patterns evolve in different natural environment.
2. Students formulate a hypothesis, i.e. provide possible explanation or educated guesses in answer to the question, for instance. Real life patterns in different

environment.

3. Students plan the inquiry. For example:
What is the best place to find information on the topic? What is the best way to gather data?
How to allocate time?
Whom to consult?
4. Help student locate information/gather data. For example: Read books on Regional Geography of the world. Geography of Pakistan and South Asia; search the internet (Depending on the availability of facilities).
5. Students record information as they find it.
6. Help student evaluate their findings and draw conclusions. Students may look for relationships in the information gathered, analyze the information and try to find an answer to the query. Teach them to support their opinions with evidence from their data.
7. Have students communicate their findings in creative ways, written, oral and visual. For example, as a poster, article, talk show, role-play, PowerPoint presentation or presentations on charts, maps or even the blackboard.
8. Encourage students to suggest possible action based on findings, if required by the theme Select actions that are doable. Look at possible consequence of each action. Choose the best action, e.g. write a report for a newspaper/magazine relating to Transboundary water dispute between Pakistan and India.
9. Make an action plan and carry out the action e.g. arrange a walk on the environmental problems of a city.
10. Reflect on the success/challenges of the action if required.

To conclude, these strategies besides promoting academic achievements would enable students to explore a range of views on a topic, gather information, answer question, improve their problem-solving and communicative skills and teach them how to work as a team. It will also increase higher order thinking and improve their attitude towards self learning and the environment.

Assessment is gathering quantitative and qualitative information, using a variety of tools and techniques that are easy to understand and interpret. Assessment should aim at evaluating teaching and learning, showing proficiency in a wide variety of tasks at class level and at providing information to different people on how well standards are being met.

Assessment and its various patterns should be in accordance with the needs of the curriculum and designed in such a manner that they inculcate and improve in students various skills such as observation, curiosity, creativity and application. Some of the assessment types are as under:-

- **The Select response**, where students select the answer to a question from two or more given choices. This category includes multiple choice,

true/false, fill in the banks and matching items type questions.

- **A constructed response** format requires students to create their own answer to a question or task. This allows teachers to gain insight into students, thinks and creative process, and to assess higher order thinking. This category includes short and essay types question.
- **Teachers, observations** are commonly ignored as a form of assessment. However, teachers should constantly observe and listen to students as they work. Non-verbal communication, such as inattention, looks of frustration and other causes give greater insight than verbal feedback, Observation is also important in assessing performance tasks, classroom climate and teacher effectiveness.
- **Self-assessment** refers to students evaluating themselves. In self-evaluation of academic achievement, students rate their own performance in relation to established standards and criteria. Students may also be asked to answer questions that reveal their attitudes and beliefs about themselves or other students as part of their self-reporting.

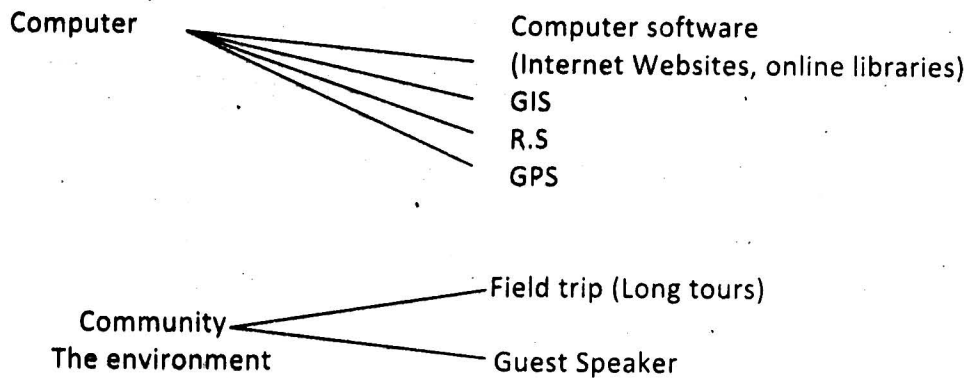
The techniques of testing and evaluation adopted for continuous assessment of students at classroom level should be both valid and reliable and proper care should be taken to prepare the objective type questions so that they can appropriately assess students, knowledge, comprehension, application, analysis and synthesis skills. There should also be periodic/monthly tests containing both objective and subjective type questions. Class and home assignments should also be given due weight age while assessing students' performance.

Guidelines for Developing Teaching-Learning

Resources

A number of teaching and learning materials are required for effective teaching of particular subjects. For example:

- Textbooks
- Teachers, guides
- Students workbooks
 - Visual aids such as charts, models, maps, transparencies, documentaries and study tours, etc.



For Geography in particular the following resources/teaching aids can be utilized to effectively support the process of teaching and learning in the classrooms:

- Primary and secondary source material
- Maps/globe (different kinds)
- Case and models
- Charts and Models
- Case studies
- Encyclopaedias
- Documentaries
- Newspapers/newsmagazines
- Internet
- Museums
- GIS, R.S, GPS

Text Books

A textbook is an important teaching and learning resource. It is one of the most extensively used resource and serves as a framework for teaching throughout the year.

Basic features of a textbook

- The textbook should conform in all its details to the parameters laid down in the curriculum.
- It must have accurate, factual and up-to-date material
- The material must be sufficient to give students the knowledge they need to understand concepts, develop skills and engage in higher order thinking,
- The material should help students understand the world in which they live, prepare for exams, prepare for life, raise their standard and promote independent thinking.
- The language of the narrative should be simple, clear and logical and should not be loaded with unnecessary details and repetitions.
- The material must be error-free so that it can be trusted.
- The material must be unbiased and non-controversial.
- Textbooks should be well illustrated with maps, diagrams, charts, and photographs.
- A number of activities should be included throughout the book.
- End-of-the-chapter exercises must encourage students to think, develop skills, and use information for a variety of purposes.
- Textbook must have an index.
- Must include a Glossary
- Must be contextually relevant.

Teacher Guide

Teacher guides provide detailed explanation of key concepts of the curriculum, lay down guidelines on how to teach a particular topic, and provide further examples to facilitate learning. A teacher's guide serves to educate teachers and thus can be seen as a means of helping teachers develop professionally.

Basic Features of a Teacher Guide:

- A teacher guide helps teachers teach text and extend activities.
- It does this by keeping contextual realities in view.
- It recommends various teaching strategies and

A Teacher Guide Contains:

- Rationale for suggested teaching
 - Various assessment strategies
 - Teaching learning resources
 - Additional information sources
 - Extended activities and how to conduct them
- } Up-to-date relevant

A teachers' guide should include introduction to the guide explaining how to use it must be easy to understand and use, expand and develop teaches, repertoire of knowledge and skills.

Workbook

Workbooks are books that contain writing activities, maps, blank maps, diagram and exercises that are related to each chapter in the textbook. Workbook exercises help to develop student, understanding of the concepts dealt with in the text, to develop skills and to apply knowledge to new situations.

Basic features of Workbooks:

- Workbooks contain many exercises and activities for each chapter, topic, sub-topic.
- These exercises and activities effectively help develop, practice and assess students, content knowledge, skills and higher order thinking and are different from exercises, activities in text and guide.
- Workbooks correspond to text-exercises and activities for same topic/ chapter grouped together, presuppose knowledge and skills developed in text only
- They are non-repetitive in style, structure with a purpose to engage students.
- They are easy for students to understand and follow, clear instructions.
- They carry several illustrations/examples/explanations to reinforce concepts of the textbook.