

Curriculum for the subject of

GEOGRAPHY

(IX-XII)2020



**Directorate of Curriculum and Teacher Education
Khyber Pakhtunkhwa, Abbottabad**

Preface

Education is oxygen to human's life. It acts as a torch-bearer showing true path to the destination. It gives us knowledge of the world around us. Well planned and organized educational program builds opinion and point of view about the surrounding environment and produces responsible and useful citizens in a society. Curriculum plays an important role in providing knowledge. It is main instrument for all-round development in intellectual, social, physical and emotional aspects of an individual's life. It consists of a continuous chain of activities required to translate educational goals into concrete activities, materials and observable change in behavior. Without a well planned curriculum the aims of education are unattainable. The development of curriculum requires inputs from all the stakeholders to reflect the needs of the society and interests of the learners.

Curriculum design is a very important part of creating a contextually relevant and responsive teaching and learning environment for both students and teachers. So it should be up to date, relevant, interesting and stimulating for students. Present era is age of knowledge revolution. It is also called as computer age, digital or media age. It is the responsibility of institutions to initiate reforms in education otherwise survival, development and peace efforts become regressive leading to unimaginable consequences.

On the concurrent list under Entry 38 of the Concurrent Legislative List to the Fourth Schedule of the Constitution of Islamic Republic of Pakistan, 1973, curriculum, syllabus, planning, policy, centers of excellence and standards of education were explained. After 18th Constitutional Amendment, development of curricula and approval of textbook manuscripts and supplementary reading material relating to textbooks, production of reference and research material in respect of the problems relating to the Schemes of Studies and curricula are now the provincial matter. As per the Khyber Pakhtunkhwa Supervision of Curricula, Textbooks and Maintenance of Standards of Education Act 2011 it is exclusive domain of the Directorate of Curriculum and Teacher Education Khyber Pakhtunkhwa, Abbottabad.

In response to the challenge, the DCTE has prepared a new Scheme of Studies (SoS) from pre-primary Education to Intermediate Level for Khyber Pakhtunkhwa province. In this regard all the stakeholders were on board through the process of consultation. The SoS was prepared keeping in view the arising need of technology in our society, modern trends in education system and to bridge the gap between public, private schools and Deeni Madaris of the Khyber Pakhtunkhwa. The Government of Khyber Pakhtunkhwa, E&SD and the DCTE believe that this endeavor will be fruitful to develop a new generation useful for the socio-economic development of the country.

In compliance with the assigned task, the DCTE has developed the curriculum of Geography for Grades IX-XII. The Curriculum for Geography developed by the then Ministry of Education Islamabad was considered as a reference documents. An attempt has been made to make present curriculum more representative, responsive, applicable, practical and stimulating to meet the societal needs. It is hoped that present curriculum document would meet the expectations of modern era.

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Section 1

Introduction

Geography is the study of distribution and interrelationship of Earth's phenomena. It describes the pattern of spatial and temporal differentiation that are governed by interaction between various variables producing a variety of natural and human phenomena on earth surfaces. For understanding the nature dynamics and impact of its variables, certain aspects have been incorporated in the curriculum of grade VI, VII, and VIII. Very basic understanding and knowledge has been provided as how space, time, and places in the nature has interrelationship. Thus an integrated approach has been adopted. Continuing further, in this curriculum for grade IX and X, the spatial and temporal constraints are recognized through providing recognition of verity of environment that prevail on planet earth.

Geography is a multidiscipline subject under the two main sub divisions of physical and human geography. Here in the continuation we have imbibe, these two categories of geography and try to discuss every aspect linked to the discipline. In physical geography, aspects of geomorphology, climatology, oceanography etc is discussed.

Physical Geography concerns about the soils, landforms, climate and temperature, how different factors affect the inhabitants in terms of their attributes and structure. It studies the correlations of these phenomena to human.

Human Geography explain the activities performed by human the Earth surface. It studies that how human has affect the surface of earth, how they change it and how the procedures of the Earth like climate have impact on human activities and also productivity.

Geographers, examination of regional characteristics, similarities and differences, correlation, behaviors and evolving is unique and lead to understanding the pattern, distribution and structure organized in space. From exploration to understanding, prediction and planning much more challenges had been undertaken by the geographers. So many ideas are incorporated to introduce in the curriculum for the learners to grasp their intention by using integrated approach to inculcate in the learner for natural thirst of enquiry, 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 naturally evolve varied natural systems and the inherent dynamics.
- Awareness about the use of the natural systems by the humans. i.e. 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.

Section 2

Student Learning Outcomes

Grade- IX

Chapter 1: Introduction to Geography		
S. No.	Contents	Student Learning Outcomes
1	Introduction	Students will be able to – Define Geography.
2	Scope of Geography	– Discuss the importance and scope of Geography
3	Branches of Geography <ul style="list-style-type: none">▪ Physical Geography▪ Human Geography	<ul style="list-style-type: none">– Describe main branches of Geography.– Define main branches of Physical Geography. (Geomorphology, Oceanography, Environmental Geography, Climatology, Cartography, Biogeography, Astronomy, Geology, Geodesy)– Define main branches of Human Geography. (Historical, Political, Cultural, Medical, Economic, Regional, Statistical, Military, Settlement)
4	Relationship of Geography with other subjects Basic Tools of Geography <ul style="list-style-type: none">▪ Statistical data▪ Aerial photographs▪ Satellite data.	<ul style="list-style-type: none">– Discuss the relation of Geography with other disciplines– Identify and compare the basic tools of Geography:

Chapter 2: Universe		
S. No.	Contents	Student Learning Outcomes
1	Introduction <ul style="list-style-type: none"> ▪ Galaxies ▪ Solar System ▪ Earth as a planet 	Students will be able to <ul style="list-style-type: none"> – Define Universe – Describe 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 and size of the earth and day/night change – Explain Latitudes and Longitudes – Explain the rotation of the earth – Explain the revolution of the earth and seasonal change. – Interpret the phenomenon of solar and lunar eclipses with diagrams. – Discuss time zones
2	Land and water distribution	<ul style="list-style-type: none"> – Describe the land and water distribution on the earth's surface.

Chapter 3 : Historical Development of Geography		
S. No.	Contents	Students Learning Outcomes
1	Introduction <ul style="list-style-type: none"> ▪ Earlier Geographers ▪ Muslim Geographers 	Students will be able to <ul style="list-style-type: none"> – Describe the contribution of following earlier Geographers in the field of geography <ul style="list-style-type: none"> – Homer – Aristotle – Eratosthenes – Ptolemy – Describe the contribution of following Muslims in the field of geography <ul style="list-style-type: none"> – Al-Khwarizami – Ibn-e-Khaldun – Al-Maqsoodi – Al-Beruni – Al-Kindi – Al-Idrisi – Ibn-e-Battuta
2	“Age of Exploration”	<ul style="list-style-type: none"> – Describe “age of exploration” – Elaborate the contribution of following explorers <ul style="list-style-type: none"> – Christopher Columbus – Vasco de Gama – Ferdinand Magellan – Captain Cook – Prince Henry

Chapter 4: Introduction to Cartography		
S.No.	Contents	Student Learning Outcomes
1	Introduction	Students will be able to; <ul style="list-style-type: none"> • Define Cartography
2	Map Types of Maps <ul style="list-style-type: none"> ▪ On the basis of Scale ▪ On the basis of purpose 	<ul style="list-style-type: none"> – Define Maps. – Classify maps on different basis. – Define and Interpret physical and cultural maps. – Classify maps into different categories on the basis of scale (Large, medium and small scale maps) – Classify maps into different categories on the basis of purpose and uses (General and specific purpose)
3	Importance of Map	<ul style="list-style-type: none"> – Discuss how maps help us to understand our world. – Discuss the application of topographical maps.
4	Elements of Map <ul style="list-style-type: none"> ▪ Title ▪ Scale ▪ Direction ▪ Legend/Key ▪ Longitude and Latitude(Coordinate system) 	<ul style="list-style-type: none"> – Name the elements of map:- – Describe scale and its types – Describe direction/orientation and its types – Describe North and its types – Describe legend – Interpret Latitude and Longitudes
5	Map Projection	<ul style="list-style-type: none"> – Define Projection – Define Coordinate system (Geographic and Projected Coordinate system) – Define Cylindrical, Conical and Zenithal projection – To know the merit & demerits of projections
6	Practical	<ul style="list-style-type: none"> – Describe the term BOLTS – Describe symbols – Locate and find places through Google and wall maps
7	Modern Techniques <ul style="list-style-type: none"> ▪ GIS ▪ Remote Sensing ▪ GPS 	<ul style="list-style-type: none"> – To define and understand the terms Geographic Information System(GIS), Remote Sensing and Global Positioning System(GPS)

Chapter 5: Geography of Pakistan		
S. No.	Contents	Student Learning Outcomes
1	Geographical location <ul style="list-style-type: none"> ▪ Borders 	Students will be able to; <ul style="list-style-type: none"> – Find location of Pakistan on globe – Describe boundaries (length) shared with other countries – Describe geo-strategic location of Pakistan
2	Administrative setup	<ul style="list-style-type: none"> – Explain the administrative hierarchy (from province to revenue village)
3	Physiography <ul style="list-style-type: none"> ▪ Mountains ranges ▪ Plains ▪ Deserts ▪ Plateaus 	<ul style="list-style-type: none"> – Describe main mountains ranges of Pakistan – Describe main Plains of Pakistan – Describe main Plateaus of Pakistan – Describe main deserts of Pakistan
4	Climate	<ul style="list-style-type: none"> – Identify various climatic regions in Pakistan
5	Forests	<ul style="list-style-type: none"> – Explain Types of forest in Pakistan

Chapter 6: Introduction to Regional Geography		
S. No.	Contents	Student Learning Outcomes
1	Introduction	Students will be able to; <ul style="list-style-type: none"> – Define Regional Geography
2	Classification of regions <ul style="list-style-type: none"> ▪ Natural ▪ Cultural 	<ul style="list-style-type: none"> – Describe the major regions of the world such as natural and cultural regions
3	Natural/ Physical Regions <ul style="list-style-type: none"> ▪ Physiographic Regions ▪ Climatic Regions ▪ Vegetation based regions ▪ Geological Regions 	<ul style="list-style-type: none"> – Describe the types and importance of various physical regions.
4	Cultural Regions <ul style="list-style-type: none"> • Economic Regions • Ethnic Regions • Political Region 	<ul style="list-style-type: none"> – Describe the types and importance of various cultural Regions

Chapter 7: Natural Hazards		
S. No.	Contents	Student Learning Outcomes
1	Introduction Classification <ul style="list-style-type: none"> ▪ Meteorological hazard ▪ Hydrological hazard ▪ Geological hazard ▪ Biological hazard 	Students will be able to; <ul style="list-style-type: none"> – Define natural hazards – Define the terms related to natural hazards like Catastrophe, Disaster – Classify the natural hazards into different types
2	Cyclones and Anticyclones Classification of Cyclones <ul style="list-style-type: none"> ▪ Tropical ▪ Temperate 	<ul style="list-style-type: none"> – Define Cyclones and Anticyclones – Classify Cyclones into various types – Describe the terms Hurricane, Tornadoes, Typhoons
3	Thunder storms, hailstorms and sleet	<ul style="list-style-type: none"> – Define thunder storms, hailstorms and sleet
4	Heat waves/ Cold waves	<ul style="list-style-type: none"> – Discuss the impact of heat and cold waves – Discuss the mitigation of heat and cold waves
5	Floods Classification of floods <ul style="list-style-type: none"> ▪ Flash flood ▪ Fluvial flood ▪ Coastal flood/tsunami 	<ul style="list-style-type: none"> – Define floods – Classify the floods into different types – Describe problems caused by floods and its mitigation
6	Droughts	<ul style="list-style-type: none"> – Define Drought – Explain Causes of droughts – Discuss the problems caused by droughts – Discuss mitigation measures to counter drought conditions
7	Earthquake	<ul style="list-style-type: none"> – Define earthquake/seismic activity – Explain causes of earthquakes – Discuss direct and indirect (landslides) problems caused by earthquakes – Discuss the methods to be used to mitigate the problems caused by earthquakes
8	Volcanic activity	<ul style="list-style-type: none"> – Define volcanic activity – Classify the volcanoes into different types – Explain causes of volcanic eruption

		<ul style="list-style-type: none"> – Explain types of problems caused by volcanic activity – Discuss the methods to counter the problems caused by volcanic activity
9	Epidemics and Pandemics	<ul style="list-style-type: none"> – Describe various epidemics and pandemics – Explain their causes and effects – Suggest their preventive measures

Chapter 8: Environment		
S. No.	Contents	Students Learning Outcomes
1	Introduction	Students will be able to; <ul style="list-style-type: none"> – Define Environment
2	Environmental Resources	<ul style="list-style-type: none"> – Understand different environmental resources under the following heading – Natural – Cultural
3	Ecosystem <ul style="list-style-type: none"> ▪ Components Classification <ul style="list-style-type: none"> ▪ Terrestrial ▪ Marine 	<ul style="list-style-type: none"> – Explain Ecosystem – Understand following components of an ecosystem – Biotic (living) – Abiotic (nonliving) – Describe the following types of ecosystem such as mountain, desert, plains, Polar, rainforest, marine etc.
4	Water Cycle	<ul style="list-style-type: none"> – Describe the process of water cycle and water balance
5	Environmental Problems <ul style="list-style-type: none"> ▪ Pollution ▪ Global Warming ▪ Acid Rain ▪ Ozone depletion 	<ul style="list-style-type: none"> – Explain pollution and its types – Describe causes and consequences of global warming – Explain acid rain and its causes – Explain Ozone depletion and its causes
6	Environmental management	<ul style="list-style-type: none"> – Understand mitigation measures to control/minimize the adverse impacts on environment – Understand the concept of sustainable development

Grade-X

Chapter 1: Resources		
S.No.	Contents	Student Learning Outcomes
1	Introduction	Students will be able to; – Define resources
2	Types of Resources <ul style="list-style-type: none">▪ Renewable Resources▪ Non-Renewable Resources▪ Perpetual Resources Natural and cultural Resources	– Define renewable resources – Define non-renewable resources – Define perpetual resources. – Define natural and cultural resources.
3	Human impact on Resources <ul style="list-style-type: none">▪ Population explosion▪ Technological Development	– Discuss the impact of human population on resources with reference to the LDCs (less developed countries) MDCs (more developed countries) of the World. – Explain how technology is improving generation of renewable resources.
4	Future prospects and conservation of Resources	– Discuss the future prospects of the resources. – Describe the measures that can be taken to conserve resources like soil, water, mineral resources and forests, etc.

Chapter 2: Human Resources		
S. No.	Contents	Students Learning Outcomes
1	Human Resources	Students will be able to; – Define human resources.
2	World Population ▪ Distribution and Structure	– Describe world population – Elaborate distribution and structure of world population.
3	Evolution of Technology	– Explain evolution of technology and its role in the development of resources.
4	Economic Activities ▪ Classification of economic activities	– Define economic activities – Discuss different types of Economic Activities related to production and Services (Primary, Secondary, Tertiary, Quaternary and Quinary).
5	Role of Human Resources in the economic development	– Elaborate the economic Development and Underdevelopment of countries with respect to their Human resources.
6	Resources and Migration	– Define migration – Discuss human migration based on economic factors.
7	Human Resources Management ▪ Education and skill ▪ Health	– Describe Human Resource Management covering education, skills and health.

Chapter 3: Power Resources		
S. No.	Contents	Student Learning Outcomes
1	Introduction Classification <ul style="list-style-type: none"> ▪ Nonrenewable ▪ Renewable 	Students will be able to; <ul style="list-style-type: none"> ▪ Define energy resources ▪ Explain various types of energy resources with example
2	Non-Renewable Energy Resources <ul style="list-style-type: none"> ▪ Oil; distribution and trade ▪ Coal; distribution and trade ▪ Natural Gas; distribution and trade ▪ Nuclear Energy ▪ Fuel Wood 	<ul style="list-style-type: none"> – Discuss Oil as an energy resource – Explain distribution of oil. – Describe Natural Gas as an energy resource and also explain its distribution and trade. – Explain the Nuclear Energy and its importance for future. – Discuss Fuel Wood as an energy resource in rural areas.
3	Renewable Energy Resources: <ul style="list-style-type: none"> ▪ Hydro Electric Power ▪ Solar Energy ▪ Wind Energy ▪ Geo-Thermal Energy ▪ Bio-Gas Energy ▪ Tidal Energy 	<ul style="list-style-type: none"> – Discuss hydroelectric power – Elaborate importance of hydropower. – Interpret Solar Energy and its importance. – Describe Wind Energy and its importance. – Discuss Geo-Thermal Energy and its importance. – Elaborate Bio-Gas Energy and its importance. – Discuss Tidal Energy and its importance. – Explain energy situation in Pakistan.

Chapter 4: Water Resources		
S. No.	Contents	Students Learning Outcome
1	Introduction Classification of water <ul style="list-style-type: none"> ▪ Fresh ▪ Saline(Marine) 	<ul style="list-style-type: none"> – Discuss the importance of water as a life sustaining resource. – Elaborate fresh water – Describe Saline water
2	Fresh Water <ul style="list-style-type: none"> ▪ Glaciers • Surface Water ▪ Ground Water 	<ul style="list-style-type: none"> – Describe Fresh water and its types(surface, ground and glaciers) – Discuss the importance of Glaciers as a source of water – Elaborate rain as a major resource offresh water. – Explain surface water as a major resource of fresh water giving examples. – Describe Ground water and its quality (Sweet and brackish) and its varying depths.
3	User of water <ul style="list-style-type: none"> ▪ Domestic ▪ Agricultural ▪ Industrial 	<ul style="list-style-type: none"> – List different uses of water. – Explain various uses of water for domestic purpose, agriculture purpose and industrial purpose
4	Water resource problems and management	<ul style="list-style-type: none"> – Discuss means of irrigation in semi- arid and arid climate with special reference to Pakistan. – Explain the problem of water logging and salinity. – Highlight the shortage of ground water in the cities – Elaborate water contamination. – Explain the management of water.
5	Saline water	<ul style="list-style-type: none"> – Describe water salinity – Discuss distribution of salinity in major oceans of the world – Discuss cause and effects of salinity

Chapter 5: Metallic and Nonmetallic Resources		
S. No.	Contents	Students Learning Outcome
1	Introduction <ul style="list-style-type: none"> ▪ Minerals ▪ Types of minerals 	<ul style="list-style-type: none"> – Define minerals – Classify mineral into major types.
2	Metallic Minerals <ul style="list-style-type: none"> ▪ Types of Metallic Minerals 	<ul style="list-style-type: none"> – Define the metallic minerals – List types of Metallic minerals. – Discuss the importance and uses of metallic minerals.
3	Non-Metallic Minerals <ul style="list-style-type: none"> ▪ Types of Non-Metallic Minerals 	<ul style="list-style-type: none"> – Define the non-metallic minerals – List types of Non-metallic minerals – Discuss the importance and uses of non-metallic minerals.
4	Distribution, Extraction and Management	<ul style="list-style-type: none"> – Discuss distribution of mineral resources with reference to Pakistan – Discuss extraction of mineral resources – Describe measures for sustainable use of mineral resources

Chapter 6: Agriculture and Livestock Resources		
S. No.	Contents	Students Learning Outcomes
1	<ul style="list-style-type: none"> ▪ Introduction 	Students will be able to; <ul style="list-style-type: none"> – Define agricultural and livestock resources
2	Agricultural Resources <ul style="list-style-type: none"> ▪ Cereal Crops ▪ Non-Cereal Crops ▪ Fruits & vegetables 	<ul style="list-style-type: none"> – Elaborate agricultural resources – Classify agriculture into major types. – Discuss cereal crops (Wheat, Rice, Corn, etc.) as a main source of staple food, – Highlight the importance of cereal crops. – Explain Non-cereal crops (Cotton, Tea, Sugar-cane etc.) as main cash crops, – Express the importance of non-cereal crops. – Discuss Plantations, Fruit and Vegetable farming, their importance and uses.
3	Livestock Resources: <ul style="list-style-type: none"> ▪ Dairy /Goat/Sheep farming ▪ Poultry Farming ▪ Fish Farming ▪ Silk Farming 	<ul style="list-style-type: none"> – Explain various forms of Livestock Resources
4	Importance and problems of agriculture and livestock farming sectors.	<ul style="list-style-type: none"> – Discuss the importance of Livestock resources – Discuss the problems of agriculture and livestock farming (capital, technology, management and disease).

Chapter 7: Industrial Resources		
S. No.	Contents	Students Learning Outcomes
1	Introduction	Students will be able to; – Define the Industry as a resource.
2	Location factors	– Discuss location factors for the establishment of the industries (raw material, capital, labor, market, entrepreneurship, communication network, etc.).
3	Types of Industries: <ul style="list-style-type: none"> ▪ Large Scale Industry ▪ Small Scale Industry ▪ Cottage Industry 	<ul style="list-style-type: none"> – 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. – Show distribution of these industries on Pakistan map
4	Industrial Problems and management	<ul style="list-style-type: none"> – Describe the problems faced by industries in Pakistan. – Discuss mitigation measures minimize the problems of industries

Chapter 8: Biomes		
S. No.	Contents	Students Learning Outcomes
1	Introduction of Biomes	Students will be able to; <ul style="list-style-type: none"> – Define biomes – Classify biomes into major types
2	Major Biomes <ul style="list-style-type: none"> ▪ Tropical Rainforests ▪ Tropical Savannas ▪ Desert ▪ Mediterranean Scrub ▪ Temperate grassland ▪ Temperate Forest ▪ Northern Coniferous /Taiga ▪ Tundra 	<ul style="list-style-type: none"> – 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.
3	Bio-diversity of Endangered species <ul style="list-style-type: none"> ▪ Plants ▪ Animals 	<ul style="list-style-type: none"> – Define Bio-diversity. – Discuss the endangered species of plants and animals in these biomes
4	Biomes management	<ul style="list-style-type: none"> – Define conservation and discuss steps taken to conserve biodiversity

Chapter 9: Globalization and Socioeconomic Developments		
S. No.	Contents	Students Learning Outcomes
1	Introduction	Students will be able to; <ul style="list-style-type: none"> – Discuss the concept of Globalization, Society and Economy
2	Globalization of the world.	<ul style="list-style-type: none"> – Explain Globalization of world on the basis of Technology and Communication.
3	Regional Organizations <ul style="list-style-type: none"> ▪ SAARC ▪ ECO ▪ ASEAN ▪ EU 	<ul style="list-style-type: none"> – Describe the structure and functions of different Regional Economic Organizations of the world
4	The Belt and Road Initiative <ul style="list-style-type: none"> ▪ China Pakistan Economic Corridor 	<ul style="list-style-type: none"> – Discuss one Belt One Road Initiative – Elaborate the importance of China Pakistan Economic Corridor (CPEC) – Demonstrate CPEC route on map

Grade- XI

Chapter 1: Introduction to Geography		
S. No.	Contents	Student Learning Outcomes
1	Introduction	Students will be able to; – Define Geography.
2	Scope of Geography	– Discuss the importance and scope Geography
3	Branches of Geography <ul style="list-style-type: none"> ▪ Physical Geography ▪ Human Geography 	– Describe main branches of Geography. – Define Physical Geography; Lithosphere, Atmosphere Hydrosphere, Biosphere – Define main branches of Physical Geography. (Geomorphology, Oceanography, Environmental Geography, Climatology, Cartography, Biogeography, Astronomy, Geology, Geodesy) – Define main branches of Human Geography. (Historical, Political, Cultural, Medical, Economic, Regional, Statistical, Military, Settlement)
4	Relationship of Geography with other Disciplines	– Discuss the relation of Geography with other disciplines
5	Universe, Solar System and the Earth	– Define Universe and its components – Explain theories about origin of the Universe; Big Bang, Nebular theory, Tidal hypothesis – 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 – Land and water distribution on Earth – Explain the rotation of the earth and day/night formation – Evaluate the revolution of the earth and seasonal change. – Compare the phenomenon of solar and lunar eclipses with diagrams.

Chapter 2: Universe		
S. No.	Contents	Student Learning Outcomes
1	Introduction <ul style="list-style-type: none"> ▪ Galaxies ▪ Solar System ▪ Earth as a planet 	Students will be able to <ul style="list-style-type: none"> – Define Universe and its components – Explain theories about origin of the Universe; Big Bang, Nebular theory, Tidal hypothesis – 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 – Interpret Land and water distribution on Earth – Explain latitudes and longitudes – Explain the rotation of the earth and day/night formation – Evaluate the revolution of the Earth and seasonal changes – Define and explain time zones – Compare the phenomenon of solar and lunar eclipses with diagrams

Chapter 3: Internal Structure of the Earth

S. No.	Contents	Students Learning Outcomes
1	Internal structure of the Earth	<p>Students will be able 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.
2.	Plate Tectonics	<ul style="list-style-type: none"> - Define Plate Tectonics. - Recognize the global pattern of plate boundaries (world map knowledge is useful) - Summarize the different types of plate boundaries why they occur and the processes that operate there. <ul style="list-style-type: none"> - Convergent (destructive) - Divergent (constructive) - Transformed - Understand the processes such as subduction and sea floor spreading - Describe and explain the land features formed by plate movements such as: <ul style="list-style-type: none"> - fold mountains with types - ocean ridges/rift valleys - ocean trenches - volcanic island arcs - faults <ul style="list-style-type: none"> - Normal Faults - Reverse Faults - Oblique Faults - Strike-Slip Faults
3.	Volcanism	<ul style="list-style-type: none"> - Define volcanoes - Describe the main types of volcanoes - Describe and explain the distribution of volcanoes on map - Describe the causes and effects of volcanic eruptions - Explain what can be done to reduce the impacts of volcanoes
4.	Earthquakes	<ul style="list-style-type: none"> - Define an earthquake - Evaluate the evidences and causes of an earthquake - Explain the following phenomenon, i.e. focus, epicenter, Richter scale, Seismograph etc. - Describe the types of seismic waves - Trace the major zones of earthquakes on the world map.

Chapter 4: Rocks		
S. No.	Contents	Students Learning Outcomes
1.	Introduction Classification of rocks <ul style="list-style-type: none"> ▪ Igneous ▪ Metamorphic ▪ Sedimentary 	Students will be able to; <ul style="list-style-type: none"> – Define rocks (by different Geographers) – Illustrate major types of rocks according to their mode of formation – Define igneous rocks, types and their characteristics <ul style="list-style-type: none"> – Intrusive – Extrusive – Describe Sedimentary rocks types and their characteristics <ul style="list-style-type: none"> – Mechanically formed – Chemically formed – Describe metamorphic rocks, types and their characteristics.

Chapter 5: Landforms		
S. No.	Contents	Students Learning Outcomes
1.	Introduction Landform classification <ul style="list-style-type: none"> ▪ Major ▪ Minor 	Students will be able to; <ul style="list-style-type: none"> – Define landforms – Define three orders of landforms – Differentiate between major and minor landforms –
2.	Major Land forms <ul style="list-style-type: none"> ▪ Mountains ▪ Plateaus ▪ Plains 	<ul style="list-style-type: none"> – Define landforms – Describe mountain and its types. – Describe plateau and its types. – Describe plains and their types.
3.	Denudation. <ul style="list-style-type: none"> ▪ Weathering ▪ Mass Wasting ▪ Erosion 	<ul style="list-style-type: none"> – Define denudation and mass wasting – Describe weathering process and its types – Describe Mass wasting as a process and its types – Define erosion

Chapter 6: Action of geomorphic agents

S. No.	Contents	Students Learning Outcomes
1.	<p>Introduction</p> <ul style="list-style-type: none">▪ Landforms made by river▪ Landforms made by glaciers▪ Landforms made by wind▪ Land forms made by waves▪ Landforms made by underground water	<ul style="list-style-type: none">– Define geomorphic agents– Explain the main hydrological characteristics and processes which operate in rivers and drainage basins– Demonstrate an understanding of the work of a river, glacier, wind and waves in eroding, transporting and depositing– Describe and explain the formation of the landforms associated with these processes– Demonstrate an understanding that rivers present hazards and offer opportunities for people– Explain what can be done to manage the impacts of river flooding– 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 Landformsmade by waves.– Explain what can be done to manage the impacts of coastal erosion– Define Karst topography– Explain the formation of major features by underground water

Chapter 7: Atmosphere

S. No.	Contents	Students Learning Outcomes
1.	<p>Introduction</p> <ul style="list-style-type: none"> ▪ Composition of atmosphere ▪ Structure of atmosphere 	<p>Students will be able to:</p> <ul style="list-style-type: none"> – Define Atmosphere – Describe the composition of Atmosphere – Describe the layered structure of Atmosphere
2.	<p>Atmosphere Temperature</p> <ul style="list-style-type: none"> ▪ Insolation ▪ Horizontal distribution of temperature ▪ Vertical distribution of Temperature ▪ Diurnal Heat Budget 	<ul style="list-style-type: none"> – Understand which places on Earth gain more heat than they lose, described by the latitudinal pattern of radiation. – Which latitudes have excesses and which latitudes have deficits – Understand how such imbalances are overcome by heat being transferred around the Earth through atmospheric transfers of wind belts and ocean currents. – Describe and understand world patterns of temperature, pressure and winds – know the variations in these patterns and how they change seasonally – Describe the factors affecting the diurnal energy budget – incoming (shortwave) solar radiation – reflected solar radiation – energy absorbed into the surface and subsurface – albedo – sensible heat transfer – long wave radiation – latent heat transfer – evaporation, dew and absorbed energy returned to Earth
3.	<p>Atmospheric Moisture</p> <ul style="list-style-type: none"> ▪ Humidity ▪ Clouds ▪ Precipitation 	<ul style="list-style-type: none"> – Know how moisture occurs in the atmosphere (gas, liquid, solid) – Describe the processes that alter these states i.e. evaporation, condensation, freezing, melting, deposition and sublimation – Describe and understand what causes precipitation and condensation – Understand how the above relates to precipitation (including ideas of relative humidity, saturation, dew point, condensation level, condensation nuclei) – Describe the differences in the types of

		precipitation – rain, hail, snow, dew and fog
4.	<p>Atmospheric pressure</p> <ul style="list-style-type: none"> ▪ Pressure distribution over the earth surface. <p>Winds</p> <ul style="list-style-type: none"> ▪ Planetary winds ▪ Seasonal winds ▪ Local winds ▪ Variable winds ▪ <p>Air masses and their types</p> <p>Fronts and their types</p> <p>Cyclones types</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 and anticyclone – Describe main types of cyclones, areas, weather and other phenomena

Chapter 8: Oceanography		
S. No.	Contents	Students Learning Outcomes
1.	Introduction	Students will be able to; <ul style="list-style-type: none"> – Understand the distribution of land and water on the Earth’s surface – Interpret the hydrological cycle
2.	Ocean Relief	<ul style="list-style-type: none"> – Describe the ocean’s reliefs such as – continental shelf – continental slope – continental rise – abyssal plain – trenches/ ocean deeps – abyssal hills – guyot – coral reefs
3.	Ocean movements <ul style="list-style-type: none"> ▪ Currents ▪ Tides ▪ Waves 	<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 currents of the Atlantic, the Pacific, the arctic and the Indian Ocean – Explain the effects of ocean on weather conditions of land – Define Tides. – Explain the types of tides – Define and explain waves
4.	Salinity	<ul style="list-style-type: none"> – Describe salinity – Discuss the salinity in major oceans of the world – Discuss cause and effects of salinity

Chapter 9: Physiography of Pakistan		
S. No.	Contents	Students Learning Outcomes
1.	Introduction Geographical location and Significance <ul style="list-style-type: none"> ▪ Geo-political importance 	Students will be able to; <ul style="list-style-type: none"> – Find location of Pakistan on globe – Describe boundaries (length) shared with other countries – Describe locations of neighboring countries with reference to Pakistan
2.	Physiography	<ul style="list-style-type: none"> – Describe drainage and following landforms – Mountains ranges – Major peaks – Important passes – Plains – Deserts – Plateaus – riers
3.	Climate	<ul style="list-style-type: none"> – Describe climatic regions of Pakistan (according to Koppen’s classification)
4.	Forests	<ul style="list-style-type: none"> – Explain types of forest – Show importance and distribution of forests on map

Chapter 10: Practical Geography

S. No.	Contents	Students Learning Outcomes
1.	Location	Students will be able to; <ul style="list-style-type: none"> – Define location – Explain types of locations
2.	Directions <ul style="list-style-type: none"> ▪ Methods of finding directions 	<ul style="list-style-type: none"> – Define and explain directions – Explain methods of finding directions
3.	Scale	<ul style="list-style-type: none"> – Define scale – Explain the types of scale – Measure distance between two points by using map scale
4.	Introduction to GIS, GPS and Remote Sensing.	<ul style="list-style-type: none"> – Define G.I.S, G.P.S. & Remote sensing. – Uses of GIS, GPS and Remote Sensing in practical Geography
5.	Relief features <ul style="list-style-type: none"> ▪ Methods of showing relief 	<ul style="list-style-type: none"> – Illustrate what are relief features – Draw relief features by using different methods. <ul style="list-style-type: none"> – Contours – Hachure – Form lines – Hill shading – Trigonometric point – Benchmark – Spot Heights – Layer Coloring
6.	Conventional Signs.	<ul style="list-style-type: none"> – Explain the symbols used for the representation of physical and cultural features on topographic map
7.	Application of geography in daily life	<ul style="list-style-type: none"> – Identify the difference between landslides, lake deposits and glacier deposits in field – Classify landslides according to most recent landslide classification – Identify and measure movements along fault zones after an earthquake – Identify soil horizons – Infer scientific methods to collect water and soil sample for laboratory tests. – Develop the questioner for socio-economic surveys

Grade-XII

Chapter 1: Human Geography		
S. No.	Contents	Students Learning Outcomes
1.	Introduction scope	Students will be able to; <ul style="list-style-type: none"> – Define Human Geography – Explain the scope and importance of Human Geography
2.	Branches of Human Geography	<ul style="list-style-type: none"> – Explain the branches of Human Geography
3.	The Earth : Our home	<ul style="list-style-type: none"> – 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 Climate <ul style="list-style-type: none"> – Physical landscape – Water – Forests – Living world

Chapter 2: Population Geography		
S. No.	Contents	Students Learning Outcomes
1	Introduction Density and distribution of population.	Students are expected to: <ul style="list-style-type: none"> – Define population – 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. – Describe the factors influencing the density and distribution of population

2	<p>Population growth</p>	<ul style="list-style-type: none"> - Define population growth - Describe and understand how population increases naturally (without migration) in relation to <ul style="list-style-type: none"> - birth rate - death rate - fertility rate - infant mortality rate - Explain the high and low growth rate areas of the world. - Describe and understand the factors (social, economic, environmental and political) affecting levels of births and deaths, fertility and mortality - Interpret age/sex structure with diagrams - Understand how a population group is made up i.e. its structure, and know some of the component parts: <ul style="list-style-type: none"> - age - gender - dependency - dependency ratio - Explain and look critically at the concepts of: <ul style="list-style-type: none"> - overpopulation - optimum population - under population
3	<p>Structure and composition of population.</p> <ul style="list-style-type: none"> ▪ Age group, ▪ Male-Female ratio/Sex Ratio 	<ul style="list-style-type: none"> - Explain the age groups, Male/Female ratio of Population of MDCs and LDCs with appropriate examples. - Identify and give reasons for and implications of different types of population structure - Explain age/sex pyramids of countries at different levels of economic development
4	<p>Population Theories/Models</p> <p>Population Change.</p> <ul style="list-style-type: none"> ▪ Natural increase (Births/Deaths) ▪ (Immigration/Emigration) <p>Migration</p>	<ul style="list-style-type: none"> - Describe following Population Theories <ul style="list-style-type: none"> - Malthus theory - Demographic transition model - Describe the Change in population with respect to Natural increase & migration. - Understand what is meant by food security - know and understand how resource

	<ul style="list-style-type: none"> ▪ Types of Migration <ul style="list-style-type: none"> ▪ Internal Migration ▪ International Migration ▪ Factors of Migration 	<p>development, e.g. food production and food security, relates to technology and innovation</p> <ul style="list-style-type: none"> – know and understand how constraints, e.g. war, climatic hazards, link to population and resources (like Corona virus) – Define migration and its types – Explain the factors (Push & Pull) of migration. – Demonstrate an understand the impacts of migration – Explain internal movements such as rural-urban migration, international migrations, both voluntary and involuntary – Describe and understand rural-urban and urban-rural movements <ul style="list-style-type: none"> – causes – effects on areas people leave (source areas) – effects on areas people go to (receiving/destination areas) – include the effects on population structures – Describe and understand intra-urban movements (within urban areas) their causes and impacts
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Chapter 3: Cultural Geography		
S. No.	Contents	Students Learning Outcomes
1.	Introduction	Students will be able to; <ul style="list-style-type: none"> – Define culture – Explain evolution of culture
2.	Classification of Culture	<ul style="list-style-type: none"> – Classify culture into different types
3.	Characteristics of Culture	<ul style="list-style-type: none"> – Explain Characteristics of culture
4.	Culture Diffusion Forms of Culture Diffusion	<ul style="list-style-type: none"> – Understand the concept of Culture Diffusion – Differentiate between acculturation and Diffusion – Explain classification and distribution of languages – Explain origin and diffusion of religion – Know about ethnic diversity and ethnic cleansing in the world

Chapter 4: Human Settlements		
S. No.	Contents	Students Learning Outcomes
1.	Introduction Classification of settlements <ul style="list-style-type: none"> ▪ Urban ▪ Rural 	Students will be able to; <ul style="list-style-type: none"> – Define Human settlements. – Identify the types of settlements. – Explain the patterns of settlement – Describe and explain the factors which may influence the sites, growth and functions of settlements – List the reasons for the hierarchy of settlements and services
2.	Rural settlements <ul style="list-style-type: none"> ▪ Nucleated and Dispersed. ▪ Forms according to shape 	<ul style="list-style-type: none"> – Explain in detail the rural settlements and their types – Understand the dispersed, linear, and nucleated settlement patterns – Understand why certain changes taking place in rural settlements in LICs HICs and MICs – Identify the consequences of urban growth – Describe the difference in rural areas among HICs LICs and MICs
3.	Urban settlements. <ul style="list-style-type: none"> ▪ Functions ▪ Urban Hierarchy ▪ Urban Models 	<ul style="list-style-type: none"> – Interpret the following terms; <ul style="list-style-type: none"> – Urbanization – urban growth – suburbanization – counter urbanization – re-urbanization – urban renewal – urban sprawl – Understand the development of a hierarchy of world cities (what it is based on, how cities are ranked, etc. – Describe the functions of urban settlements. – Explain the concept of Urban hierarchy (hamlet to Mega city) – Describe and give reasons for the characteristics of, and changes in, land use in urban areas – Describe the effects of urbanization on the people and the natural environment

4.	World Urbanization	<ul style="list-style-type: none">- Explain the main features and problems in the large cities of Pakistan.- Locate important cities on the map.- Describe the impacts of urban growth on both rural and urban areas, along with possible solutions to reduce the negative impacts
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Chapter 5: Economic Geography

S. No.	Contents	Students Learning Outcomes
1.	<p>Introduction</p> <ul style="list-style-type: none"> ▪ Economic Geography ▪ Economic Activities 	<p>Students will be able to;</p> <ul style="list-style-type: none"> – Define Economic Geography – Define Economic Activities
2.	<p>Types of Economic activities</p> <ul style="list-style-type: none"> ▪ Primary activities ▪ Secondary activities ▪ Tertiary activities ▪ Quaternary activities ▪ Quinary activities 	<ul style="list-style-type: none"> – Explain the various types of human economic activities (Primary, Secondary, Tertiary, Quaternary, and Quinary) related to production and services.
3.	<p>Favorable industrial factors</p>	<ul style="list-style-type: none"> – Recall the factors affecting the location of manufacturing industry and related service industry: <ul style="list-style-type: none"> – suitability and cost of land – labor supply – capital available – location of markets – technology – economies and diseconomies of scale – inertia – transport – government policies – raw material origin – power source – infrastructure – linkages available – demonstrate knowledge of some of the main places where industries develop: <ul style="list-style-type: none"> – break of bulk sites (e.g. deep-water ports) – riversides for heavy plants – suburban trading estates on route ways and near market – in or next to CBD for services (and later relocation outside city) – understand where and why industries tend to develop together <ul style="list-style-type: none"> – industrial agglomeration – functional linkages – industrial estates

		<ul style="list-style-type: none"> – export processing zones (EPZ) understand the informal sector of manufacturing and services: <ul style="list-style-type: none"> – causes – characteristics – location – impact location
4.	National economic development	<ul style="list-style-type: none"> – Demonstrate knowledge of primary, secondary, tertiary and quaternary sectors of an economy and their roles in economic development – Describe the nature, causes and distribution of global inequalities in social and economic wellbeing – Explain and comment on the measures and indices of social and economic inequality, e.g. life expectancy, HDI
5.	Tourism and communication network	<ul style="list-style-type: none"> – Describe the importance of tourism in an economic development of a country – Describe major communication networks of Pakistan – Describe importance of CPEC in regional economic development

Chapter 6: Political Geography		
S. No.	Contents	Students Learning Outcomes
1.	Introduction	Students will be able to; <ul style="list-style-type: none"> – Definition political Geography – Discuss Scope of political Geography
2.	Basic concepts	<ul style="list-style-type: none"> – Describe Power, Authority, Legitimacy – Define and explain Nation, State, Frontiers and boundaries. – Explain types of state
3.	Organs of Government	<ul style="list-style-type: none"> – Explain Legislature, Executive, Judiciary
4.	Geo-Strategic position of Pakistan	<ul style="list-style-type: none"> – Elaborate the importance of geostrategic position of Pakistan. – Sketch out Pakistan and its neighboring countries.

Chapter 7: Natural Hazards		
S. No.	Contents	Students Learning Outcomes
1.	Introduction	<p>Students will be able to;</p> <ul style="list-style-type: none"> – Define Natural Hazards. – Discuss landforms and geomorphic agents – Describe Geomorphological processes and their interaction with humans
2.	Classification of natural hazards <ul style="list-style-type: none"> ▪ Endogenic hazard ▪ Exogenic hazard ▪ Biotic hazard ▪ Extra- terrestrial hazard 	<ul style="list-style-type: none"> – Describe endogenic hazard i.e. earthquakes, volcanism, Tsunamis and subsurface water processes) – Discuss exogenic hazards i.e rainfall variations and droughts, floods, erosion, mass movements, Snow avalanches, cyclones, hail storm, dust storms, thunder storms, heat waves – Define and describe biotic hazards i.e animal induced, human induced and plant induced – Evaluate weathering, causes and implications – Describe extra-terrestrial hazards i.e. solar flare phenomenon, meteoroid, comets, falling of asteroids and swarming of insects – Identify the area of 8th October 2005 earthquake in Pakistan on the map of Pakistan.
3.	Management and Planning	<ul style="list-style-type: none"> – Discuss about the awareness of Natural Hazards and their management <ul style="list-style-type: none"> – Prevention – Mitigation – Preparedness – Impact – Response – Recovery – Development – Describe types of Plan <ul style="list-style-type: none"> – Level of Plan – National and Provincial Disaster Management Plans – Elements at Risk – Explain emergency response awareness in various hazard scenarios

4.	Hazard management in Pakistan	<ul style="list-style-type: none"> – Describe salient features of NDMA Policies and Acts – Describe salient features of PDMA
5.	Hazard and Risk mapping	<ul style="list-style-type: none"> – Describe basics concepts of hazard and risk mapping – Inventory – Susceptibility – Hazard – Vulnerability and Risk

Chapter 8: Practical Geography		
S. No.	Contents	Students Learning Outcomes
1	Statistical Diagrams	<p>Students will be able 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).
2	Distributional Maps	<ul style="list-style-type: none"> – 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.
3	Practical application of geographic tools	<ul style="list-style-type: none"> – Identify and compare the basic tools of Geography:- – Statistical data – Aerial photographs – Satellite data.
4	Map Projection <ul style="list-style-type: none"> ▪ Major types of map projections 	<ul style="list-style-type: none"> – Define Projection. – Describe the major types of Projects, and their uses and properties. – Draw various types of projections, <ul style="list-style-type: none"> – Cylindrical – Conical – Zenithal

Chapter wise weightage

S. No	Chapter	Weightage
1.	Introduction to Geography	10%
2.	Universe	10%
3.	Historical development of Geography	10%
4.	Introduction to Cartography	15%
5.	Geography of Pakistan	15%
6.	Introduction to Regional Geography	15%
7.	Natural Hazards	15%
8.	Environment	10%
Total:		100%

Class X		
S. No	Chapter	Weightage
1.	Resources	10%
2.	Human Resources	10%
3.	Power Resources	15%
4.	Water Resources	10%
5.	Metallic and non-metallic Resources	10%
6.	Agricultural and Livestock Resources	10%
7.	Industrial Resources	10%
8.	Biomes	15%
9.	Globalization and Socio- Economic Development	10%
Total:		100%

XI		
S. No	Chapter	Weightage
1.	Introduction to Geography	10%
2.	Universe	10%
3.	Internal Structure of the Earth	10%
4.	Rocks	10%
5.	Land Forms	10%
6.	Action of Geomorphic agents	10%
7.	Atmosphere	10%
8.	Oceanography	10%
9.	Physiography of Pakistan	10%
10	Practical	10%
Total:		100%

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

Section 3

Teaching Strategies

Teaching of Geography should focus on meaningful learning in participatory environment, both by instructor and students. The participation in the class should be able to understand, interpret, analyze 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 recognition 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". Adopting various instructional strategies besides, facilitating students, academic learning also aid development of number of skills and values preparing them to play appositve role in the society. Moreover, 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

Lecture should be comprised of following characteristics

1. Lectures must be well-planned with in time limits.
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 be participatory and not one sided. In order to make a lecture interactive and keep students engaged, the teacher should frequently ask questions.
4. Teachers should encourage students to ask questions in the class.

5. This strategy is highly effective as students participate equally, practice social skills and individually demonstrate what they have learned from their partners.
6. Students should be assigned tasks to search learning materials from other sources i.e. internet, libraries and newspapers.
7. Arrange educational field trips to different organizations and locations.
8. Encourage students to prepare models and presentations on selected topics from syllabus.

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 are evolved 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 Trans boundaries 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 problems-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.

Section 4

Assessment

Assessment is gathering quantitative and qualitative information, using a variety of tools and techniques that are easy to understand and interpret.

We need an assessment system to

assess teaching and learning show proficiency in a wide variety of tasks at a class level.

provide information to different people on how well standards are being met.

Types of Assessment Methods

Four methods that can be used to assess teaching and learning are:

1. ***The selected response***: students select the answer to a question from two or more given choices. Such items are easy to develop. Their short response time allows more information to be assessed in a short time. However, since answer choices are provided, students can guess the correct answer without knowing the material. Scoring is quick and objective, since the teacher need only check if the single correct or best answer was identified for each item.
2. ***A constructed response*** format requires students to create or produce their own answer in response to a question or task. This allows teachers to gain insight into students' thinking and creative processes, and to assess higher order thinking. However, such items are time-consuming to answer and score. Although they eliminate guesswork, scoring is more subjective and thus clear criteria are necessary to maintain validity.
3. ***Teacher observations*** are so common that they are often ignored as a form of assessment. However, teachers constantly observe and listen to students as they work. Observation is also important in assessing performance tasks, classroom climate, teacher effectiveness, and other dimensions of the classroom.
4. ***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.

Within the four types of assessment methods, some commonly used formats have been briefly

described below:

Selected Response

Multiple-Choice Items

What is it?

Multiple choice items have a short question, followed by multiple answer choices from which students must pick the correct or best answer. The question is called the stem, and the answer choices are called options. The options contain one correct or best answer, and two or more distractors.

Strengths and Weaknesses

- Relatively difficult to write, especially good distractors
- Having students pick the 'correct' answer assess knowledge and understanding
- Having students pick the 'best' answer measures and higher order thinking such as reasoning and critical analysis
- Having Students pick the 'best' answer measures and higher order thinking such as reasoning and critical analysis

Constructed Response

Short Answer

What is it?

Short-answer items are questions that call for students to write short answers (3-4 sentences at most), such as definitions or showing working in math problems.

Strengths and Weaknesses

- Good for assessing knowledge
- Can also assess understanding and reasoning
- Easy to construct since structure like instruction (question-and- answer) in class, so natural to teacher and student

Essay Items

What is it?

Such items literally have students answer a question by writing an essay. The length, nature and content of the essay is dependent on the question posed, so responses may be restricted or extended.

Strengths and Weaknesses

- Require students to sequence and integrate many separate ideas into a meaningful whole, interpret information, give arguments, give explanations, evaluate the merit of ideas, and conduct other types of reasoning
- Help students see themes, patterns, relationships
- Allow flexibility in responses
- Can evaluate students' ability to communicate their ideas
- Reading and scoring answers is time-consuming, especially if done so that meaningful feedback is given to students
- A single person, the teacher, judges the answers, so variations in mood, expectations, the order in which students are evaluated, and other factors, affect the professional judgments that are made
- Cannot assess lots of information or multiple reasoning skills at once

Performance-based Assessments

What is it?

Performance-based assessments involve teachers observing and assessing students' demonstration of a skill/process and/or competency in creating a product/making a presentation as a result of a skill/process.

Characteristics of Performance-based Assessments

- Students perform, create, construct, produce, or do something
- Deep understanding and/ or higher order thinking skills are needed
- Involves significant work that usually takes days to weeks to complete
- Calls on students to explain, justify, and defend
- Performance is directly observable
- Involves engaging ideas of importance and substance
- Criteria and standards are specified and explained to students along with the task
- There is no single best product or correct process
- Usually students work with real-world contexts and constraints

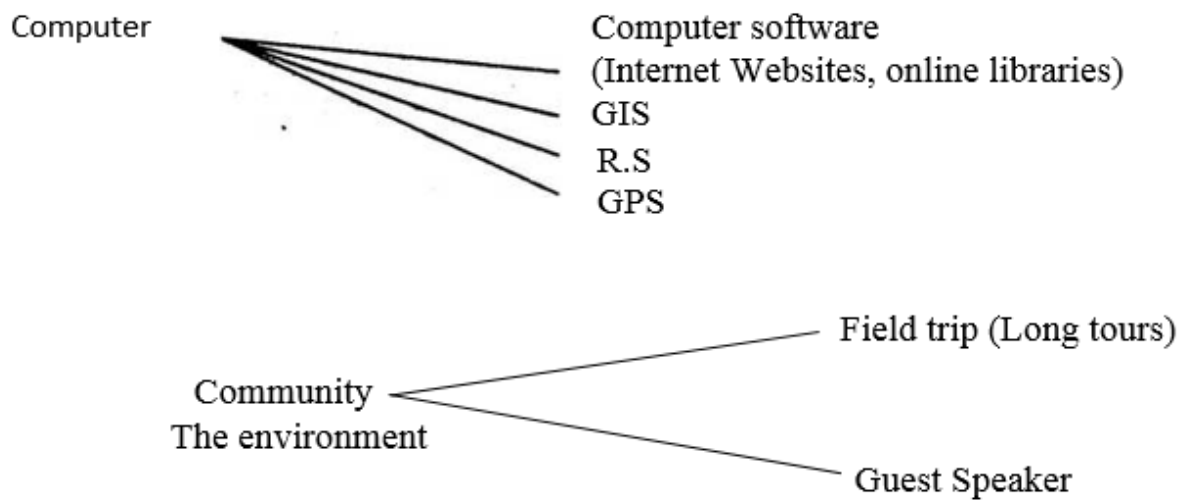
Section 5

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
- Encyclopedias
- 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.
- Pakistan maps as per approved by Survey of Pakistan should be included.
- 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.

A Teacher Guide Contains:

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

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.

Section 6

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