INTRODUCTION

The study of Geography is essential for the proper understanding of the interaction between man and his physical and cultural environments. The activities of human beings on earth are continually influenced by the physical environment in the same manner through which the physical environment is profoundly influenced by human activities. This curriculum in Geography has been designed to develop in learners, the requisite knowledge, skills, competencies, values and attitudes that would make for a sustainable existence.

The General objectives for Grades 10 -12 Geography:

1. **Acquire and improve skills and techniques for accurate and orderly geographical investigations.**
2. **Conduct research to explain facts about the earth – its shape, structure and evolving characteristics.**
3. **Analyze human environment interrelationship.**
4. **Apply geographical theories and concepts in real life problem solving.**

A learner-centered approach is emphasized in this curriculum. This is based on the firm belief that learning becomes more permanent, meaningful and exciting when learners themselves take ownership of the learning process. Instructors are therefore urged to contrive those classroom strategies that engage learners actively in the teaching and learning process.

SEMESTER ONE

GRADE: 10
PERIOD: 1
UNIT 1: PHYSICAL GEOGRAPHY – THE SOLAR SYSTEM
TOPIC I: THE EARTH AS A PLANET

OUTCOMES	OBJECTIVES	CONTENTS	ACTIVITIES	MATERIALS	COMPETENCY/ ASSESSMENT
Learners are able to: Relate life on the earth to its planetary position in space and determine time difference in relation to the earth rotation.	Upon completion of this topic: learners will: 1. Describe the formation of universe 2. Describe the solar System in relation to its formation 3. Draw a diagram of the solar system to show the planets in orbit around the sun	1. The formation and composition of the universe 2. The formation and structure of the solar system 3. The planets 4. The moon and its impact	**Inclusive Education and Differentiated Learning** Individual seat work or mixed groups according to gender, abilities and learning styles **ACTIVITIES** 1. Learners draw the solar system and explain its structure and formation 2. In a group, learners demonstrate the concept of the moon's rotation and revolution by learners walking around a chair with one side of the body always facing the chair 3. Learners draw the various phases of the moon as it revolves around the earth 4. 4 Use flash light and football to demonstrate the causes of day and night	**Primary Text:** General geography in Diagram for West Africa, Physical Geography. **Other:** a. Chicken egg b. Tennis ball c. Classroom chair d. White paper e. Lamp f. Internet researcher g. Picture of the moon phases h. Globe i. Flash light j. Football k. pictures of the solar system DISCOVER A-Z OF GEOGRAPGY WASSCE Q & A (PAPER 1 &2) **Links:** www.apsstudent.collegeboard.org	**EXPECTED COMPENTENCIES** • Research and Problem Solving • Effective Communication Skills • Creativity and Innovation Skills • Digital Skills **ASSESSMENT STRATEGIES That can be used to check competencies. Select relevant options:** • Oral questions • Assignments • Quiz • Group presentation

SEMESTER ONE

GRADE: 10
PERIOD: 1
UNIT1: PHYSICAL GEOGRAPHY – THE SOLAR SYSTEM
TOPIC II: SHAPE & SIZE OF THE EARTH

OUTCOMES	OBJECTIVES	CONTENTS	ACTIVITIES	MATERIALS	COMPETENCY/ ASSESSMENT
Learners are able to Elaborate the concepts of Diameters and Circumferences and prove the shape of the earth.	Upon completion of this topic: learners will: 1. Explain the concepts of Equatorial Circumference, Equatorial Diameter, Polar Circumference, and Polar Diameter 2. Measure the a) Equatorial circumference b) Polar circumference c) Polar diameter d) Equatorial diameter 3. Prove the shape of the earth by calculating the differences between the polar and equatorial diameters	1. Earth's Dimension a. Equatorial circumference b. Equatorial diameter c. Polar circumference d. Polar diameter e. Differences in length between equatorial circumference f. Differences in length between equatorial diameter and polar diameter 2. Shape of the Earth a. Description b. Proof of the Earth's spherical shape. Examples: • inferential proof, • Aerial photographs. circumnavigation of the earth lunar Eclipse,	**Inclusive and differentiated learning** Individual seat work or mixed groups according to gender, abilities, learning styles, etc. **ACTIVITIES** 1. Using a string, ruler and orange or egg, learners in a small group, will measure Equatorial circumference; Polar circumference; Polar diameter; and Equatorial diameter 2. As an exercise, learners will Plant three poles of equal height on a level ground and observe the height of the	**A, Primary Text:** General Geography in Diagrams (Pearson) B. **Secondary Texts** Abegunde, et al. Senior Secondary Geography Bk. 1 Map reading for west Africa Certificate Physical and Human Geography WASSCE Q & A (PAPERS 1 &2) Globe, thread, three sticks of equal length, table, picture of the planets **Links**: www.apsstudent.collegeboard.org	**EXPECTED COMPENTENCIES** • Research and Problem Solving • Effective Communication Skills • Creativity and Innovation Skills • Digital Skills **ASSESSMENT STRATEGIES That can be used to check competencies. Select relevant options:** • Oral questions • Assignments • Quiz • Group presentation

	and the circumferences	• earth's curved horizon • apparent sunrise sunset • Bedford canal experiment.	center pole to proof the spherical shape of the earth.		

SEMESTER ONE

GRADE: 10
PERIOD: 1
UNIT 1: PHYSICAL GEOGRAPHY – THE SOLAR SYSTEM
TOPIC III: LATITUDE, LONGITUDE AND TIME

OUTCOMES	OBJECTIVES	CONTENTS	ACTIVITIES	MATERIALS	COMPETENCY/ ASSESSMENT
Learners are able to demonstrate understanding of latitudes and longitudes	**Upon completion of this topic, learners will:** 1. Relate the terms latitudes and longitudes 2. Discuss the major latitudes and longitudes 3. Explain the uses of longitudes and latitudes	1. Lines of Latitude a) Define latitudes b) Major lines latitude c) Characteristics of lines of latitude b) Uses of the lines Latitude e)Linear distance calculation 2. Lines of longitude a. Define longitude b) Major lines of longitude c) Characteristics of lines longitude d) Uses of the lines longitude e) Great and small circles f) Local time calculation 3. Graticules 4. a) North and South Poles b)True North	**Inclusive and differentiated learning** Individual seat work or mixed groups according to gender, abilities, learning styles, etc **ACTIVITIES** Learners will work in small groups to identify and show the importance of the longitude and latitude. Learners will outline major latitude and longitude lines on the globe. Using venn diagrams, learners will identify the similarities and differences between lines of latitude and longitude Using venn diagram, learners will identify the	**A. Primary Text** General Geography in Diagrams (Pearson) **B. Secondary Texts** Abegunde, et al. Senior Secondary Geography Bk. 1 Map reading for west Africa Certificate Physical and Human Geography WASSCE Q & A (PAPERS 1 &2) Orange, marker, globe, wall map with lines of latitude and longitude, calculator, time zone chart Internet researcher Links: www.apsstudent.collegeboard.org	**EXPECTED COMPENTENCIES** • Research and Problem Solving • Effective Communication Skills • Creativity and Innovation Skills • Digital Skills **ASSESSMENT STRATEGIES That can be used to check competencies. Select relevant options:** • Oral questions • Assignments • Quiz • Group presentation

		c) Magnetic north d) Grid north e)Magnetic declination	similarities and differences between Great Circles Calculate time in different time zones		

SEMESTER ONE

GRADE: 10
PERIOD: 1
UNIT1: PHYSICAL GEOGRAPHY – THE SOLAR SYSTEM
TOPIC IV: THE EARTH'S MOVEMENTS

OUTCOMES	OBJECTIVES	CONTENTS	ACTIVITIES	MATERIALS	COMPETENCY/ ASSESSMENT
Learners are able to distinguish the concepts of earth rotation and revolution as well as apply the Ferrell's law of deflection	Upon completion of this topic, learners will: 1. Differentiate between the concepts of rotation and revolution of the earth 2. Explain the terms associated with the rotation and revolution of the earth 3. Describe the effects of the earth's rotation and revolution 4. Discuss the deflection of winds and ocean currents using Ferrell's law 5. Distinguish between lunar (moon) eclipse and solar eclipse or eclipse of the sun 6. Describe the formation of solar eclipse and lunar eclipse	1. The Rotation of the Earth a) Definition b) Effect of rotation 2. The Revolution of the Earth a) Definition b) Terms associated with the revolution of the earth etc.) c) Effect of revolution d) Similarities and Differences between rotation and revolution 3. Eclipse a) definition b) formation c) types - solar - lunar	**Inclusive and differentiated learning** Individual seat work or mixed groups according to gender, abilities and learning styles. **ACTIVITIES** 1. Learners carry out experiment by pointing flash light at a football to demonstrate the appearance of day and night. 2. Learners will spin the globe or football to indicate movement of the earth. 3. Learners draw a simplified diagram of the earth showing the movement of winds to the north and south of the equator 4. Learners will illustrate solar and lunar eclipse by diagrams	A**. Primary Text** General Geography in Diagrams (Pearson) **B. Secondary Texts** Abegunde, et al. Senior Secondary Geography Bk. 1 Map reading for west Africa Certificate Physical and Human Geography WASSCE Q & A (PAPERS 1 &2) Flash light, lamp, globe, candle and matches, dark room, Atlas, illustrated diagrams, pencil for drawing Links: www.apsstudent.collegeboard.org	**EXPECTED COMPENTENCIES** • Research and Problem Solving • Effective Communication Skills • Creativity and Innovation Skills • Digital Skills **ASSESSMENT STRATEGIES That can be used to check competencies. Select relevant options:** • Oral questions • Assignments • Quiz • Group presentation

SEMESTER ONE

GRADE: 10
PERIOD: II
UNIT 1: PHYSICAL GEOGRAPHY – THE SOLAR SYSTEM THE EARTH'S STRUCTURE
TOPIC 1: THE EXTERNAL AND INTERNAL STRUCTURE OF THE EARTH

OUTCOMES	OBJECTIVES	CONTENTS	ACTIVITIES	MATERIALS/RESOURCES	COMPETENCY/ ASSESSMENT
Learners are able to discuss features of the earth's surface.	**Upon completion of this topic, learners will:** 1. Distinguish between the external and internal layers of the earth 2. Discuss the features of the geologic layers of the earth's surface 3. Describe the characteristics of the external and internal layers of the earth	1. External Structure(major spheres) - Atmosphere - Hydrosphere - Biosphere - Lithosphere a. characteristics of the spheres b. importance of the spheres to living organisms c. Relationship within and among the spheres 2. Internal Structure a) Layers - crust - mantle - core b) Characteristics of the layers	**Inclusive and differentiated learning** Individual seat work or mixed groups according to gender, abilities, learning styles, etc. **ACTIVITIES** 1. Draw a simplified diagram of the earth's internal and external structure to show the different types of layers. 2. Field trip to identify external and internal layers of the earth. 3. use clay to mold the internal structure of the earth	**A. Primary Text** General Geography in Diagrams (Pearson) **B. Secondary Texts** Abegunde, et al. Senior Secondary Geography Bk. Map reading for west Africa Certificate Physical and Human Geography WASSCE Q & A (PAPERS 1 &2) Boiled and raw Chicken egg, knife, plate, butter pear, slice of bread, yam, cassava, or bread fruit Picture of the earth internal, internet researcher, Venn diagram of three circles Sheet of paper **Links:** www.apsstudent.collegeboard.org	**EXPECTED COMPENTENCIES** Analytical Skill • Research and Problem Solving • Effective Communication Skills • Creativity and Innovation Skills • Digital Skills **ASSESSMENT STRATEGIES** **That can be used to check competencies. Select relevant options** • Field report • Oral questions • Assignments • Quizzes' • Group presentation

SEMESTER ONE

GRADE: 10
PERIOD: II
UNIT 1 PHYSICAL GEOGRAPHY
TOPIC II: ROCKS OF THE EARTH

OUTCOMES	OBJECTIVES	CONTENTS	ACTIVITIES	MATERIALS/RESOURCES	COMPETENCY/ ASSESSMENT
Learners are able to differentiate between rocks and minerals, outline the characteristics of rock and minerals and state the economic importance of rocks	**Upon completion of this topic, learners will:** 1. Distinguish between rocks and minerals 2. Classify rock in relations to mode of formation. 3. List the main characteristics and uses of each type of rock.	a) Types of rocks - Igneous - Metamorphic - Sedimentary b) Characteristics of rock - texture - structure - color - permeability c) Characteristics and mode formation: - Igneous rocks - Metamorphic rocks - Sedimentary rocks d) Uses of : - Igneous Rocks - Metamorphic Rocks - Sedimentary Rock e) Importance of rocks to man	**Inclusive and differentiated learning** Individual seat work or mixed groups according to gender, abilities, learning styles, etc **ACTIVITIES** 1. Group discussion: learners collect different types of rocks from the community/school and classify different samples of rock types 2. Group discussion on rock texture. Hardness and color of rock pieces / samples; the mode of formation and uses of	General Geography in Diagrams (Pearson) **B. Secondary Texts** Abegunde, et al. Senior Secondary Geography Bk. 1 Map reading for west Africa Certificate Physical and Human Geography WASSCE Q & A (PAPERS 1 &2) Rocks samples, modeled dry clay, Sand, funnel, empty rice bag, marble stone **Links:** www.apsstudent.collegeboard.org	**EXPECTED COMPENTENCIES** • Research and Problem Solving • Effective Communication Skills • Creativity and Innovation Skills • Digital Skills **ASSESSMENT STRATEGIES That can be used to check competencies. Select relevant options:** • Oral questions • Assignments • Quiz • Group presentation

SEMESTER ONE

GRADE: 10
PERIOD: III
UNIT 2 : HUMAN AND REGIONAL GEOGRAPHY- WORLD POPULATION AND SETTLEMENT
TOPIC 1: POPULATION

LEARNING OUTCOMES	OBJECTIVES	CONTENTS	ACTIVITIES	MATERIALS/RESOURCES	COMPETENCY/ ASSESSMENT
Learners are able to: Explain world population and the distribution patterns Recognize factors that influence population movements, the importance of family planning and empowerment as well as population census.	**UPON COMPLETION OF THE TOPIC, LEARNERS WILL:** 1. Discuss the term "World population" 2. Explain population distribution patterns of the world. 3. Distinguish between overpopulation and under population 4. Explain the factors that influence population movements 5. Demonstrate the conduct of population census. 6. Recognize the importance of family	1. World Population a. definition, b. characteristics c. size d. Terms associated with population growth e. factors affecting population growth f. reasons for rapid growth of world population, g. pattern of world population distribution - densely populated areas - moderately populated areas - sparsely populated areas h) advantages and disadvantages of high and low population densities	**INCLUSIVE AND DIFFERENTIATED LEARNING** Individual seat work or mixed groups according to gender, abilities, learning styles, etc. **ACTIVITIES** 1. Draw population maps indicating densely and sparsely population regions. 2. List some overpopulated and underpopulated counties/countries. 3. Hold debates to discuss population control in relation to family planning and women empowerment	**A. Primary Text** General Geography in Diagrams (Pearson) B. **Secondary Texts** Abegunde, et al. Senior Secondary Geography Bk. 1 Map reading for west Africa Certificate Physical and Human Geography WASSCE Q & A (PAPERS 1 &2) Population data, Demographic map, atlas, pictures and diagram of places where population data can be collected, Internet researcher, Video clips of densely and sparely populated areas, illustrative pictures of controlled and uncontrolled population, video clip on family planning Links: www.apsstudent.collegeboard.org	**EXPECTED COMPENTENCIES** • Research and Problem Solving • Effective Communication Skills • Creativity and Innovation Skills • Digital Skills **ASSESSMENT STRATEGIES That can be used to check competencies. Select relevant options:** • Field Trip • Oral questions • Assignments • Quiz • Group presentation

	planning and empowerment as a means of controlling population growth	2. Population control and family planning			

SEMESTER ONE

GRADE: 10
PERIOD: III
UNIT 2 : HUMAN AND REGIONAL GEOGRAPHY
TOPIC II: SETTLEMENT AND MIGRATION

LEARNING OUTCOMES	OBJECTIVES	CONTENTS	ACTIVITIES	MATERIALS/RESOURCES	COMPETENCY/ ASSESSMENT
Learners are able to distinguish between rural and urban settlements, outline the consequences of migration and suggest ways to minimize migration	**UPON COMPLETION OF THE TOPIC, learners will:** 1. Classify settlement according to: a) Types b) pattern c) Size d) Function 2. Analyze the factors affecting sitting and growth of settlement. 3. Explain the functions of settlements. 4. Describe the characteristics settlement according to: a) types b) pattern c) function	1. Settlement a. definition b. site and situation c. factors affecting sitting and growth d. classification - Type (Urban and Rural) - pattern(nucleated, linear, dispersed and isolated) - function (commercial, religious, administrative, industrial etc) - size eg. i) Cities, ii) Towns iii) Metropolis iv) Satellite towns. e) Classification of Villages: Homestead, Hamlet, Farmstead, etc. f) characteristics of settlements	**Inclusive and differentiated learning** Individual seat work or mixed groups according to gender, abilities, learning styles, etc. **ACTIVITIES** 1 Learners discuss factors affecting settlement growth, and draw diagram of settlements 2 List the contribution of rural and urban settlements to mankind. 3 Learners work in groups to outline the consequences of migration at the source and receiving regions 4 Learners work in groups to identify	General Geography in Diagrams (Pearson) B. **Secondary Texts** Abegunde, et al. Senior Secondary Geography Bk. 1 Map reading for west Africa Certificate Physical and Human Geography WASSCE Q & A (PAPERS 1 &2) Atlas, world map, picture of settlements, illustrative diagrams of settlements according pattern Illustrative pictures of migrants, statistics and data on migration, reports of International Organization of	**EXPECTED COMPENTENCIES** • Research and Problem Solving • Effective Communication Skills • Creativity and Innovation Skills • Digital Skills **ASSESSMENT STRATEGIES That can be used to check competencies. Select relevant options:** • Field Trip • Oral questions • Assignments

	5. Explain the consequences of migration at the source and receiving regions 6. Advance possible solutions to migration.	g) functions of rural and urban settlements h) reasons for patterns of settlement 2. Urbanization a) definition b) causes c) problems d) solutions 3. Migration a) definition b) forms and types c) causes -push and pull factors e) effects f) controls	problem associated with migration and suggest solution. 5 Field trip to identify types of settlements, over and under-populated regions of Liberia.	Migration (IMO), internet researcher Links: www.apsstudent.collegeboard.org	• Quizzes' • Group presentation

SEMESTER TWO

GRADE: 10
PERIOD: IV
UNIT 3 : PRACTICAL GEOGRAPGY—USING MAPS
TOPIC: 1 MAP READING

LEARNING OUTCOMES	OBJECTIVES	CONTENTS	ACTIVITIES	MATERIALS/ RESOURCES	COMPETENCY/ ASSESSMENT
Learners are able to: interpret maps information and convert scales Design diagrams and determine positions of places.	**UPON COMPLETION OF THE TOPIC, LEARNERS WILL:** 1. Interpret map information 2. Distinguish kinds of maps 3. Convert from one scale to another 4. Apply skills to reduce, enlarge, and calculate areas and ground distances of maps using map scales 5. Calculate the gradient of slopes 6. Discover the positions of places using the grid system, or	1. Map a) Definition b) characteristics c) types - characteristics - uses d) Importance/Uses e) Limitations of Maps 2. Map scale a) Definition b) types and characteristics - Representative Fraction - Statement - Linear c) Advantages and disadvantages of each type) d) Conversion of Map Scales	**Inclusive and differentiated learning** Individual seat work or mixed groups according to gender, abilities, learning styles, etc. **ACTIVITIES** 1. Learners outline and discuss the kinds of map and indicate their features. 2. Learners draw map to scale, reduce and enlarge maps and State the limitations of maps 3. Draw the prismatic compass and illustrate its direction and bearing 4. Prepare an annotated map using the three types of map scales.	General Geography in Diagrams (Pearson) **B. Secondary Texts** Abegunde, et al. Senior Secondary Geography Bk. 1 Map reading for west Africa Certificate Physical and Human Geography WASSCE Q & A (PAPERS 1 &2) Atlas, topographical maps, road maps, cadastral maps, ruler, calculator, pencil geological maps, demographic map, geometry set **Links:** www.apsstudent.collegeboard.org	**EXPECTED COMPENTENCIES** • Research and Problem Solving • Effective Communication Skills • Creativity and Innovation Skills • Digital Skills **ASSESSMENT STRATEGIES That can be used to check competencies. Select relevant options:** • Oral questions • Assignments • Quizzes’

	longitudes and latitudes 7. Determine directions using the compass and bearing 8. Design diagrams, profiles and sketches resulting from survey exercises				• Group presentation

SEMESTER TWO

GRADE: 10
PERIOD: V
UNIT 1: PHYSICAL GEOGRAPHY—ENVIRONMENTAL SCIENCE
TOPIC: LAND AND WATER DISTRIBUTION

LEARNING OUTCOMES	OBJECTIVES	CONTENTS	ACTIVITIES	MATERIALS/ RESOURCES	COMPETENCY/ ASSESSMENT
Learners are able to: Elaborate on the various forms of land and water masses, their importance to mankind Explain the major environmental hazards that result from natural and human activities	**UPON COMPLETION OF THIS TOPIC, STUDENTS WILL:** 1. Determine the ratio of land to water 2. Determine how much land is suitable for agriculture 3. Identify the various forms of water masses 4. Discuss the importance of land and water masses to man 5. Describe the major environment	1. The continents 2. The islands 3. Vegetation resources 4. Mineral resources 5. Case study i) Mineral resources of Liberia, West Africa and other parts of Africa. 6. Water Resources the Oceans, seas, Rivers, Lakes, Rias, etc. 7. Environment a) definition b) types c) components	**Inclusive and differentiated learning** Individual seat work or mixed groups according to gender, abilities, learning styles, **ACTIVITIES** 1. Learners diagram the earth's surface to identify land and water positions, providing the ratio of land and water; 2. Group learners to discuss the relevance of the atmosphere to living organism and challenges pose by the atmosphere 3. Brainstorm and discuss the continents and oceans of the	**A. Primary Text** General Geography in Diagrams (Pearson) **B. Secondary Texts** Abegunde, et al. Senior Secondary Geography Bk. 1 Map reading for west Africa Certificate Physical and Human Geography **C. Other Supplementary Readings** WASSCE Q & A (papers 1 &2) World physical map, atlas, geological maps of Liberia, West Africa and Africa Illustrative diagrams and pictures of water bodies, video	**EXPECTED COMPENTENCIES** • Research and Problem Solving • Effective Communication Skills • Creativity and Innovation Skills • Digital Skills **ASSESSMENT STRATEGIES** **That can be used to check competencies. Select relevant options:** • Field Trip • Oral questions • Assignments • Quizzes'

	6. Identify the major components of the environment 7. Discuss the importance of the environment 8. Identify the problems facing the environment	d) domains e) importance f) problems	world and show their locations using maps; Field trip to identify variations in vegetation and mineral types.	clips/tapes of continent and island, picture of garbage Links: www.apsstudent.collegeboard.org	• Test

SEMESTER TWO

GRADE: 10
PERIOD: V
UNIT 1: PHYSICALGEOGRAPGY—ENVIRONMENTAL SCIENCE
TOPIC: POLLUTION OF LAND AND WATER

LEARNING OUTCOMES	OBJECTIVES	CONTENTS	ACTIVITIES	MATERIALS/RESOURCES	COMPETENCY/ ASSESSMENT
Learners are able to identify the different types of pollution, their effects on the ecosystem, and create awareness for control measures.	**UPON COMPLETION OF THE TOPIC, STUDENTS WILL:** 1. Elaborate on pollution and its kinds 2. State the effects of pollution on the environment 3. Suggest ways through which pollution can be minimized and controlled 4. 4. Discuss land ecosystem	1. Land Pollution Sources of land pollution Effects of land pollution Prevention/Control 2. Water Pollution Sources of Water Pollution: River contamination (used of D.D.T and others), industrial waste etc Effects of water pollution. 3. Land Ecosystem i. Meaning and components ii. Food chain iii. Land reclamation iv. Nitrogen Cycle v. Problem and Solution	**Inclusive and differentiated learning** **Individual seat work or mixed groups according to gender, abilities, learning styles, etc** **ACTIVITIES** 1. Learners work in group to identify sources of land and water pollutions in the environment; 2. Group discussion and presentation on the ways of controlling land and water pollution 3. Outline the chemicals that are responsible for the contamination of water and land. 4. Class discussion/assignment: Define land ecosystem and name the components, identifying the elements that make up the ecosystem;	A. PRIMARY TEXT: General Geography in Diagrams (Pearson) **B. Secondary Texts** Abegunde, et al. Senior Secondary Geography Bk. 1 Map reading for west Africa Certificate Physical and Human GEOGRAPHY WASSCE Q & A (PAPERS 1 &2) Spri gone, insecticide, picture of bush burning, illustrative picture of food chain, pollutants Links www.apsstudent.collegeboard.org	**EXPECTED COMPENTENCIES** • Research and Problem Solving • Effective Communication Skills • Creativity and Innovation Skills • Digital Skills **ASSESSMENT STRATEGIES That can be used to check competencies. Select relevant options:** • Oral questions • Assignments • Quizzes' • Test

SEMESTER TWO

GRADE: 10
PERIOD: V
UNIT 1: PHYSICALGEOGRAPGY—ENVIRONMENTAL SCIENCE
TOPIC: ENVIRONMENTAL BALANCE--SOILS

LEARNING OUTCOMES	OBJECTIVES	CONTENTS	ACTIVITIES	MATERIALS/ RESOURCES	COMPETENCY/ ASSESSMENT
Learners are able to identify the different types of soil, state their importance to the growth and development of plants and animals to mankind	**upon completion of the topic, students will** 1. Classify the different soil types based on their characteristics 2. Discuss the factors involved in soil formation 3. Examine the influences on soil fertility 4. Elaborate on the importance of soil to human and animal life	1. Soil Types and characteristics 2. Soil Formation 3. Processes of Soil formation i. Humidification ii. Mineralization etc.) 4. Soil Fertility 5. Importance of Soil i. Plant life ii. Provision of Minerals iii. Source of raw materials iv. Base for construction v. Habitat for fauna and Flora	**Inclusive and differentiated learning Individual seat work or mixed groups according to gender, abilities, learning styles, etc.** 1. .Group learners (mixed)to identify the different soil types and their characteristics using their school environment; 2. Draw soil profile and label the layers. 3. Group discussion on the formation of soil and the importance for agricultural and construction activities 4. Learners outline different soil types in Liberia;	**A. Primary Text** General Geography in Diagrams (Pearson) **B. Secondary Texts** Abegunde, et al. Senior Secondary Geography Bk. 1 Map reading for west Africa Certificate Physical and Human Geography WASSCE Q & A (PAPERS 1 &2) Soil samples, illustrative diagrams and pictures of soil profiles, internet researcher **Links:** www.apsstudent.collegeboard.org	**EXPECTED COMPENTENCIES** • Research and Problem Solving • Effective Communication Skills • Creativity and Innovation Skills • Digital Skills **ASSESSMENT STRATEGIES That can be used to check competencies. Select relevant options:** • Oral questions • Assignments • Quizzes' • Test

SEMESTER TWO

GRADE: 10
PERIOD: V
UNIT 1: PHYSICALGEOGRAPGY—ENVIRONMENTAL SCIENCE
TOPIC: ENVIRONMENTAL HAZARDS

LEARNING OUTCOMES	OBJECTIVES	CONTENTS	ACTIVITIES	MATERIALS/ RESOURCES	COMPETENCY/ ASSESSMENT
Learners are able to outline the kinds of environmental hazards and propose prevention mechanism	**UPON COMPLETION OF THE TOPIC, LEARNERS WILL:** 1. List the different kinds of environmental hazards 2. Propose ways to avoid or manage environmental hazards 3. Explain the effects of environmental hazards on human activities	1. Environmental Hazards: Meaning, Types, causes, effects and Control; 2. Soil Erosion and Depletion 3. Drought 4. Deforestation, global warming, Drought, Desertification, Meaning,) Causes: Loss of farmlands, Aridity, change in pattern of agriculture, Prevention/Control vii) 5. Flooding i) Meaning ii) Causes: iii) Precipitation iv) Melting of ice, etc v) Effects: vi) Displacement of population, loss of life	**Inclusive and differentiated learning** **Individual seat work or mixed groups according to gender, abilities, learning styles, etc** 1. Learners identify and discuss incidences of environmental hazards locally and elsewhere 2. Group discussions on the causes and effects of environmental hazards; Learners to state the appropriate and acceptable definition of environmental hazards 3. Using poster sheets let learners list and describe the different kinds of environmental hazards; learners outline preventive methods to constructively control hazards.	**A. PRIMARY TEXT:** General Geography in Diagrams (Pearson) **B. Secondary Texts** Abegunde, et al. Senior Secondary Geography Bk. 1 Map reading for west Africa Certificate Physical and Human Geography WASSCE Q & A PAPERS 1 &2) Illustrative pictures and diagrams of logging, flooding, pollution, desert land scape, greenhouse effect/global warming, internet researcher Links: www.apsstudent.collegeboard.org	**EXPECTED COMPENTENCIES** • Analytical skill • Research and Problem Solving • Effective Communication Skills • Creativity and Innovation Skills • Digital Skills **ASSESSMENT STRATEGIES** **That can be used to check competencies. Select relevant options** • Fieldtrip • Oral questions • Assignments • Quizzes’

		and property, etc vii) Prevention and control	4. Field trip to identify areas affected by environmental hazards.		• Tests

SEMESTER TWO

GRADE: 10
PERIOD: VI
UNIT 1: PHYSICALGEOGRAPGY—MAJOR LAND FORMS
TOPIC: INTRODUCTION TO LAND FORMS

LEARNING OUTCOMES	LEARNING OBJECTIVES	CONTENTS	ACTIVITIES	MATERIALS/ RESOURCES	COMPETENCY/ ASSESSMENT
Learners are able to classify land forms as relate to the formation of mountains, plateaus and plains and relate the formation of mountains, plateaus and plains	**upon completion of the topic, students will** 1. Describe land forms 2. Classify landforms in relation to structure 3. State the importance of landforms 4. 4.Summarize the formation of mountains, plateau and plains	1. Land forms: a) Mountains b) Plateaus c) Plains 2. Types of mountains: a. Fold mountain b. Volcanic mountain c. Block mountain d. Residual mountain 3. Characteristics and formation of the four types of mountains 4. Economic importance of the four types of mountains 5. Advantages and disadvantages of mountains. 6. plateaus a. Types	**<u>Inclusive and differentiated learning</u>** **Individual seat work or mixed groups according to gender, abilities, learning styles, etc** 1. Class exercise: Diagram the four types of mountains; 2. Group discussion on the importance of the four types of mountains; 3. Field trip to a mountain to show the base and peak, and also show the differences between mountains, plateau and plains. 4. Illustrate fold mountain formation by comprising the two side of a paper. 5. Leaners shake and open a bottle of coke cola to	**A. Primary Text** General Geography in Diagrams (Pearson) **B. Secondary Texts** Abegunde, et al. Senior Secondary Geography Bk. 1 C Map reading for west Africa Certificate Physical and Human Geography WASSCE Q & A (PAPERS 1 &2) Atlas, world physical map, paper Illustrative diagrams of mountains, candles and matches, bottle of coke cola **Links:** www.apsstudent.collegeboard.org	**<u>EXPECTED COMPENTENCIES</u>** • Analytical skill • Research and Problem Solving • Effective Communication Skills • Creativity and Innovation Skills • Digital Skills **<u>ASSESSMENT STRATEGIES</u>** **<u>That can be used to check competencies.</u>** **<u>Select relevant options</u>** • Fieldtrip • Oral questions • Assignments • Quizzes' • Tests

		b) characteristics of c) each type d) formation of each type e) Advantages and disadvantages of each type 7. Plains a) Types b) Characteristics of each type c) Advantages and disadvantages of each type	demonstrate the formation of volcanic		

SEMESTER TWO

GRADE: 10
PERIOD: VI
UNIT 1: PHYSICALGEOGRAPGY—WATER CYCLE
TOPIC: HYDROSPHERE

LEARNING OUTCOMES	LEARNING OBJECTIVES	CONTENTS	ACTIVITIES	MATERIALS/ RESOURCES	COMPETENCY/ ASSESSMENT
Learners are able to demonstrate knowledge of hydrosphere in relation to its importance and discuss the water cycle.	**Upon completion of the topic, students will:** 1. Identify the components of hydrosphere. 2. Highlight the importance of hydrosphere to life on planet Earth 3. Relate the hydrosphere to other natural features of the earth 4. Analyze the water cycle.	1 Water cycle a) definition b) processes 2. Definition and component of the hydrosphere: a. Oceans b. Seas c. Rivers d. Lakes, etc. 3 Diagram and analysis of the water cycle; 4 importance of hydrosphere;	**Inclusive and differentiated learning** **Individual seat work or mixed groups according to gender, abilities, learning styles, etc** 1. Group discussion on the meaning and the components of the hydrosphere; 2. Field trip to identify the various water bodies that constitute the hydrosphere. 3. State the importance of hydrosphere to life on planet earth 4. Diagram the water cycle.	**A. Primary Text** General Geography in Diagrams (Pearson) **B. Secondary Texts** Abegunde, et al. Senior Secondary Geography Bk. 1 C Map reading for west Africa Certificate Physical and Human Geography WASSCE Q & A (PAPER 1 &2) Postal sheet, maker, ice block, beaker, heated iron and wet towel, illustrative diagram of water cycle Links: www.apsstudent.collegeboard.org	**EXPECTED COMPENTENCIES** • Analytical skill • Research and Problem Solving • Effective Communication Skills • Creativity and Innovation Skills • Digital Skills **ASSESSMENT STRATEGIES** **That can be used to check competencies. Select relevant options** • Fieldtrip • Oral questions • Assignments • Quizzes' • Tests

SEMESTER TWO

GRADE: 10
PERIOD: VI
UNIT 1: PHYSICALGEOGRAPGY—INTERNAL STRUCTURE OF THE EARTH
TOPIC: LITHOSPHERE (CRUST)

LEARNING OUTCOMES	LEARNING OBJECTIVES	CONTENTS	ACTIVITIES	MATERIALS/ RESOURCES	COMPETENCY/ ASSESSMENT
Learners are able to discuss the lithosphere as the land block of the earth with emphasis on its external and internal portions, and its importance to life on earth	**upon completion of the topic, learners will:** 1. Classify the internal and external composition of the Lithosphere 2. Outline the different land blocks-i.e. the continents. 3. Compare the lithosphere to other natural features of the earth	1. Definition and composition of lithosphere: a. Land blocks (continents) b. Internal composition (Sial & Sima) c. External composition (continents) 2. Map of the continents; 3. Diagram of the internal and external compositions 4. State the importance of the lithosphere	**Inclusive and differentiated learning** **Individual seat work or mixed groups according to gender, abilities, learning styles, etc** 1. Group discussion on the meaning and the composition of the lithosphere 2. Field trip outside the school compound to observe the land mass and differentiate lithosphere from the other layers of the earth such as water and air. 3. State the importance of lithosphere to life on planet earth 4. Learners draw diagram to illustrate the internal and external parts of the lithosphere.	A. Primary Text General Geography in Diagrams (Pearson) B. Secondary Texts Abegunde, et al. Senior Secondary Geography Bk. 1 C Map reading for west Africa Certificate Physical and Human Geography WASSCE Q & A (PAPERS 1 &2) Illustrative diagram of the sial and sima, Internet researcher **Links:** www.apsstudent.collegeboard.org	**EXPECTED COMPENTENCIES** • Analytical skill • Research and Problem Solving • Effective Communication Skills • Creativity and Innovation Skills • Digital Skills **ASSESSMENT STRATEGIES** **That can be used to check competencies. Select relevant options** • Fieldtrip • Oral questions • Assignments • Quizzes' • Tests

SEMESTER TWO

GRADE: 10
PERIOD: VI
UNIT 1: PHYSICALGEOGRAPGY—EARTH'S LIVES LAYER
TOPIC: BIOSPHERE

LEARNING OUTCOMES	LEARNING OBJECTIVES	CONTENTS	ACTIVITIES	MATERIALS/ RESOURCES	COMPETENCY/ ASSESSMENT
Learners are able to elaborate on the biosphere and its importance to man, plants and animals.	**Upon completion of the topic, learners will:** 1. Explain the Biosphere and its composition 2. Discuss the importance of Biosphere as life layer of the earth. 3. Identify the various bio chores in the biosphere 4. Compare and contrast the biosphere to other natural features of the earth	1. Definition and composition of biosphere: a. Forest b. Swamps c. Deserts etc. 2. Identification and discussion on the various bio chores in the biosphere; 3. Discuss the importance of biosphere as life layer of the earth. 4. Diagram of the composition of the biosphere 5. Differentiate the aquatic bio cycle from the terrestrial bio cycle in the biosphere.	Inclusive and differentiated learning Individual seat work or mixed groups according to gender, abilities, learning styles, etc 1. Learners brainstorm on the components of the biosphere using poster sheets 2. Group discussion on the composition of the biosphere 3. Field trip outside the school compound to observe the different plants and animals that make up the biosphere and differentiate it from the other layers of the earth. 4. Draw the aquatic and the terrestrial bio cycle in the biosphere and the other layers of the earth 5. Leaners draw Venn diagram to show the position of the biosphere in relation to the other spheres	**A. Primary Text General** Geography in Diagrams (Pearson) **B. Secondary Texts** Abegunde, et al. Senior Secondary Geography Bk. 1 **C. Map reading** for west Africa Certificate Physical and Human Geography GEOGRAPGY WASSCE Q & A (PAPERS 1 &2) Venn diagram of three of circles **Links:** www.apsstudent.collegeboard.org	**EXPECTED COMPENTENCIES** • Analytical skill • Research and Problem Solving • Effective Communication Skills • Creativity and Innovation Skills • Digital Skills **ASSESSMENT STRATEGIES That can be used to check competencies. Select relevant options** • Fieldtrip • Oral questions • Assignments • Quizzes' • Tests

SEMESTER ONE

GRADE: 11
PERIOD: 1
UNIT 1: PHYSICAL GEOGRAPGY—LAND FORMS RESULTING FROM
TOPIC 1: FAULTING AND FOLDING (DIASTROPHISM)

LEARNING OUTCOMES	LEARNING OBJECTIVES	CONTENTS	ACTIVITIES	MATERIALS/ RESOURCES	COMPETENCY/ ASSESSMENT
Learners are able to effectively describe faulting and folding Demonstrate knowledge in natural internal geomorphic forces moulding land forms	**UPON COMPLETION OF THE TOPIC, STUDENTS WILL** 1. Discuss faulting and folding as forces that produce landforms 2. Differentiate between faulting and folding in relation to land formation. 3. Identify the major land forms resulting from faulting and folding 4. Explain plate tectonic and the theory of continental drift 5. Analyze the proofs of the theory of continental drift	Faulting and Folding 1. Plate tectonic a) Definition b) Oceanic and continental plates c) Plates boundaries d) Effects of plate tectonic 2. The theory of continental drift a) Definition b) Evidence or proofs of the theory eg. Minerals, rock, coastal etc. 3. Types of folding and faulting eg. Simple fold, asymmetrical fold, recumbent fold normal fault, reverse fault, tear fault etc.	**Inclusive and differentiated learning** **Individual seat work or mixed groups according to gender, abilities, learning styles, etc**. **Activities** 1. **Field trip**: Organize field trips to observe various landforms in Liberia and make sketches of the landforms they observe. 2. **Assessment**: a) Leaners will mould clay to illustrate vertical and lateral earth movements b) stretch rubber bands to demonstrate faulting c) guide leaners to compress face towel to illustrate folding d) leaners will trace continents and cut	**A. Primary Text General** Geography in Diagrams (Pearson) **B. Secondary Texts** Abegunde, et al. Senior Secondary Geography Bk. 1 **C. Map reading** for west Africa Certificate Physical and Human Geography WASSCE Q & A (PAPERS 1 &2) Slice of bread, cassava, towel, paining color, world map, tracing paper, pencil, illustrative diagrams of plate tectonic Sheet of paper, rubber bands **Links:**	**EXPECTED COMPENTENCIES** • Analytical skill • Research and Problem Solving • Effective Communication Skills • Creativity and Innovation Skills • Digital Skills **ASSESSMENT STRATEGIES** **That can be used to check competencies. Select relevant options** • Fieldtrip • Oral questions • Assignments • Quizzes' • Tests

			them and join them together to proof the theory of continental drift	www.apsstudent.collegeboard.org	

SEMESTER ONE

GRADE: 11
PERIOD: 1
UNIT 1: PHYSICAL GEOGRAPGY—INTERNAL FORCES PRODUCING LANDFORMS
TOPIC 11: VULCANICITY

LEARNING OUTCOMES	LEARNING OBJECTIVES	CONTENTS	ACTIVITIES	MATERIALS/ RESOURCES	COMPETENCY/ ASSESSMENT
1. Learners are able to explain the term vulcanicity and identify features produce as the results of volcanicity 2. Leaners will demonstrate knowledge of the positive and negative impact of natural phenomena	**UPON COMPLETION OF THE TOPIC, STUDENTS WIL:** 1. Explain the term 'Vulcanicity' 2. Identify the causes of volcanicity 3. Describe the features produced by volcanic action 4. Discuss the effects of volcanicity and earthquake	Vulcanicity i) Definition and terms ii) Causes Volcanicity and Features produced i. Intrusive: Batholiths, dykes, Skills, Laccoliths, Geysers, etc. ii. Extrusive: Composite cone, ash and cinder cone, lava plateau, lava plain, crater, caldera, etc. iii. Effects of volcanicity and earthquake Examples Tourist attraction, mineral deposits, fertile soils, pollution etc. iv. Effects of earthquake Examples: cause of death, displacement of people, destruction of property etc.	**<u>Inclusive and differentiated learning</u> Individual seat work or mixed groups according to gender, abilities, learning styles, etc**. **<u>Activities</u>** 1. Group discussion: on the ways in which vulcanicity and earthquake affect the population; identify regions that are affected by volcanic eruption and earthquake; the economic importance of earthquakes and volcanic landforms 2. Classwork/assignment: Draw diagram indicating the formation of volcanic features. 3. Leaners will shake a bottle of coke and open it to demonstrate the volcanic eruption	A. Primary Text General Geography in Diagrams (Pearson) B. Secondary Texts Abegunde, et al. Senior Secondary Geography Bk. 1 C Map reading for west Africa Certificate Physical and Human Geography WASSCE Q & A (PAPERS 1 &2) Bottle of coke, candles, matches, illustrative diagrams and pictures of volcanic action, internet researcher **Links:** www.apsstudent.collegeboard.org	**<u>EXPECTED COMPENTENCIES</u>** • Analytical skill • Research and Problem Solving • Effective Communication Skills • Creativity and Innovation Skills • Digital Skills **<u>ASSESSMENT STRATEGIES</u>** **<u>That can be used to check competencies.</u>** **<u>Select relevant options</u>** • Fieldtrip • Oral questions • Assignments • Quizzes' • Tests

SEMESTER ONE

GRADE: 11
PERIOD: 1
UNIT 1: PHYSICAL GEOGRAPGY—PROCESS OF DENUDATION
TOPIC 111: WEATHERING AND MASS WASTING

LEARNING OUTCOMES	LEARNING OBJECTIVES	CONTENTS	ACTIVITIES	MATERIALS/ RESOURCES	COMPETENCY/ASSESSMENT
Learners will acquire the knowledge and skills of minimizing the negative impact of the agents modifying land forms	**upon completion of the topic, students will:** 1. Distinguish between weather and mass wasting 2. Outline the factors affecting weathering and mass wasting or movement 3. Discuss the types of weathering and mass wasting 4. Analyze the effects of weathering and mass wasting	1. Denudation a. Definition b) Factors affecting denudation c) Sequences of denudation 2. Weathering a) Definition b) Factors affecting weathering 3. Types of weathering a) Physical b) Biological c) Chemical 4. Processes involved in the three types of weathering 5. Effects of weathering 6. Mass wasting or mass movement a) Definition	**Inclusive and differentiated learning** **Individual seat work or mixed groups according to gender, abilities, learning styles, etc.** **Activities** 1. Leaners identify regions of the world where the types of weathering are very peculiar 2. leaners go on a field trip to observe and see soil creps, land slide and rock fall	**A. Primary Text** General Geography in Diagrams (Pearson) **B. Secondary Texts** Abegunde, et al. Senior Secondary Geography Bk. 1; Map reading for west Africa Certificate Physical and Human Geography. WASSCE Q & A (PAPERS 1 &2) Chalk, water, rusty and non-rusty nail, illustrative diagrams and pictures of mass wasting **Links:** www.apsstudent.collegeboard.org	**EXPECTED COMPENTENCIES** • Analytical skill • Research and Problem Solving • Effective Communication Skills • Creativity and Innovation Skills • Digital Skills **ASSESSMENT STRATEGIES** **That can be used to check competencies. Select relevant options** • Fieldtrip • Oral questions • Assignments • Quizzes' • Tests

		b) Factors affecting wasting mass or mass movement c) Types of mass wasting d) Effects of mass wasting			

SEMESTER ONE

GRADE: 11
PERIOD: 1
UNIT 11: PHYSICAL GEOGRAPGY—EXTERNAL PROCESSES MODIFING LANDFORM
TOPICS: ACTION OF RUNNING WATER (RIVERS), WINDS AND WAVES

LEARNING OUTCOMES	LEARNING OBJECTIVES	CONTENTS	ACTIVITIES	MATERIALS/ RESOURCES	COMPETENCY/ ASSESSMENT
Learners Adopt means of minimizing river, wind and wave erosion	**upon completion of the topic, leaners will:** **1. Describe the processes of river, wind and wave erosion** **2. Identify landforms produced by river, wind and wave** **3. Analyze the destructive and constructive actions of river, wind and wave** **4. Describe the mode and formation of landforms produced by the actions of river, wind and wave**	1. Action of running water(river) a) factors affecting the velocity of river b) development of river valley c) processes of river erosion d) processes of river transportation e) landforms produce by river erosion f) landforms produce by river deposition g) importance of rivers 5. Action of winds a) Characteristics of desert b) Types of desert landscape c) Processes of wind erosion d) Processes of wind transportation e) Landforms produced by wind erosion	**Inclusive and differentiated learning** **Individual seat work or mixed groups according to gender, abilities, learning styles, etc**. **Activities** 1. Organize field trip to observe the impacts of river, wind and wave actions 2. Illustrate river profile by diagrams 3. Identify the different types of coastlines in Africa	**A. Primary Text** **General** Geography in Diagrams (Pearson) **B. Secondary Texts** Abegunde, et al. Senior Secondary Geography Bk. 1 **C. Other resources** Map reading for west Africa Certificate Physical and Human Geography, WASSCE Q & A (PAPER 1 &2) Atlas, world physical map, illustrative diagrams and pictures of landforms produce by rivers, wind and wave, internet researcher	**EXPECTED COMPENTENCIES** • Research and Problem Solving • Effective Communication Skills • Creativity and Innovation Skills • Digital Skills • Analytical Skills **ASSESSMENT STRATEGIES** **That can be used to check competencies.** **Select relevant options** • Field report • Oral questions • Assignments • Quizzes’

		f) Landforms produced by wind deposition 6. Action of waves a) Development of wave b) Processes of wave erosion c) Processes of wave transportation d) Landforms produced by wave erosion e) Landforms produced by wave deposition f) Types of coast - Submergence coastline - Emergence coastline		Links: www.apsstudent.collegeboard.org	

SEMESTER ONE

GRADE: 11
PERIOD: II
UNIT 1: PHYSICAL GEOGRAPGY—INTERNAL PROCESS OF LANDFORM DEVELOPMENT
TOPIC 1: HYDROLOGICAL CYCLE AND UNDERGROUND WATER

LEARNING OUTCOMES	LEARNING OBJECTIVES	CONTENTS	ACTIVITIES	MATERIALS/ RESOURCES	COMPETENCY/ ASSESSMENT
Learners will appreciate the importance of underground water to man leaners will develop strategies to harness vulcanicity to the benefit of man	**UPON COMPLETION OF THE TOPIC, STUDENTS WIL:** 1. Describe the processes that cause the development of the hydrological cycle 2. Explain the hydrological cycle 3. Define underground water 4. Explain the terms associated with underground water 5. Discuss the mode of formation of surface and underground limestone features	4. Hydrological cycle a) Definition b) Terms associated with hydrological cycle - Overland flow - Infiltration through flow - Evaporation, condensation, etc c) Importance of hydrological cycle 5. Ground water a) Definition b) Terms associated with ground water: - Zone of permanent saturation - Springs - Wells - Artesian basin etc - Importance of underground water c) Features produced by groundwater : - Stalagmites, stalactities pillars etc	**Inclusive and differentiated learning** **Individual seat work or mixed groups according to gender, abilities, learning styles, etc**. **Activities** 1.Class exercise: Learners 1. will illustrate hydrological cycle through drawing 2. will collect samples and identify permeable and impermeable rocks 3. conduct experiment to practicalize water table	A. Primary Text General Geography in Diagrams (Pearson) B. Secondary Texts Abegunde, et al. Senior Secondary Geography Bk. 1 C. **Other Resources** Map reading for west Africa, Certificate Physical and Human Geography , WASSCE Q & A (PAPERS 1 &2) Diagrams and pictures of hydrological cycle, Karst Topography Links: www.apsstudent.collegeboard.org	**EXPECTED COMPENTENCIES** • Research and Problem Solving • Effective Communication Skills • Creativity and Innovation Skills • Digital Skills • Analytical Skills **ASSESSMENT STRATEGIES** **That can be used to check competencies. Select relevant options** • Fieldtrip • Oral questions • Assignments • Quiz

SEMESTER ONE

GRADE: 11
PERIOD: II
UNIT 1: PHYSICAL GEOGRAPGY—ENVIRONMENT
TOPIC 11: ATMOSPHERE

LEARNING OUTCOMES	LEARNING OBJECTIVES	CONTENTS	ACTIVITIES	MATERIALS/ RESOURCES	COMPETENCY/ ASSESSMENT
Learners are able to elaborate on the atmosphere, its characteristics and usefulness	**UPON COMPLETION OF THE TOPIC, LEARNERS WILL:** 1. . Elaborate on the Atmosphere and its composition. 2. Outline the layers of the atmosphere and their characteristics. 3. Discuss the usefulness of the atmosphere 4. Identify atmospheric pollution 5. List methods of protecting the atmosphere	1 Atmosphere a) Definition of atmosphere b) Characteristics and composition c) Importance of the atmosphere d) Problems and solution	Inclusive and differentiated learning Individual seat work or mixed groups according to gender, abilities, learning styles, etc. **Activities** 1.Class exercise: List the composition and layers of the atmosphere using poster sheets 2 Group discussion on the meaning and usefulness of the atmosphere 3.Group work: Research on the causes of atmospheric pollution and ways to minimize pollution 4 Draw the atmosphere showing the different layers	A. Primary Text General Geography in Diagrams (Pearson) B. Secondary Texts Abegunde, et al. Senior Secondary Geography Bk. 1 C Map reading for west Africa Certificate Physical and Human Geography C. other resources , WASSCE Q & A (PAPERS 1 &2) Internet researcher, pictures of atmospheric pollution	**EXPECTED COMPENTENCIES** • Research and Problem Solving • Effective Communication Skills • Creativity and Innovation Skills • Digital Skills • Analytical Skills **ASSESSMENT STRATEGIES** **That can be used to check competencies. Select relevant options** • Oral questions • Assignments • Quizzes’

SEMESTER ONE

GRADE: 11
PERIOD: II
UNIT 1: PHYSICAL GEOGRAPGY—ENVIRONMENT
TOPIC 111: ATMOSPHERIC PRESSURE AND AIR POLLUTION IN LIBERIA

LEARNING OUTCOMES	LEARNING **OBJECTIVES**	**CONTENTS**	**ACTIVITIES**	**MATERIALS/RESOURCES**	**COMPETENCY/ ASSESSMENT**
Learners are able to explain atmospheric pressure and air pollution in Liberia	**upon completion of the topic, students will:** 1. Explain Atmospheric pressure. 2. Discuss the types of wind on the basis of temperature variation. 3. Explain air pollution 4. 4 Outline the causes and impact of air pollution in Liberia	1.Atmospheric Pressure i) Definition ii) Temperature variation as a result of a) wind direction and speed b) pressure belts c) zone of convergence and divergence. Iii). Planetary wind system. iv). Deflection of winds. v). Land and sea breezes. vi). Warm and cool/cold air. vii). Currents, shape of coastline etc. 2 Definition of air pollution a).causes b).effects c).control. 3. Case study: Air pollution in Liberia.	**Inclusive and differentiated learning Individual seat work or mixed groups according to gender, abilities, learning styles, etc.** **Activities** 1.Class work: Draw a barometer on poster sheet and explain its usage; 2.Home work: Outline the different types of winds on the basis of temperature variation; 3.Group work: Learners research and report on some causes of air pollution in Liberia 4.Group discussion/Brainstorm on the control of air pollution, outline the causes of wind	A. Primary Text General Geography in Diagrams (Pearson) B. Secondary Texts Abegunde, et al. Senior Secondary Geography Bk. 1 C. Other materials Map reading for west Africa, Certificate Physical and Human Geography, WASSCE Q & A (PAPER 1 &2) Dust, ashes, insecticide, internet researcher Links: www.apsstudent.collegeboard.org	**EXPECTED COMPENTENCIES** • Research and Problem Solving • Effective Communication Skills • Creativity and Innovation Skills • Digital Skills • Analytical Skills **ASSESSMENT STRATEGIES That can be used to check competencies. Select relevant options** • Fieldtrip • Oral questions • Assignments • Quizzes’

SEMESTER ONE

GRADE: 11
PERIOD: III
UNIT 1: PHYSICAL GEOGRAPGY—CLIMATOLOGY
TOPIC 1: EFFECTS OF WEATHER AND CLIMATIC ELLEMENTS
TOPIC 2: CLLIMATIC CLASSIFICATION AND CLIMATIC REGION

LEARNING OUTCOMES	LEARNING OBJECTIVES	CONTENTS	ACTIVITIES	MATERIALS/RESOURCES	COMPETENCY/ASSESSMENT
Learners are able to differentiate between weather and climate and analyze climatic data	**UPON COMPLETION OF THE TOPIC, LEARNERS WILL:** 1. . Differentiate between Weather and Climate 2. List the elements of weather and climate 3. 3. Calculate and analyze climatic data using chart	1. Weather d) Definition e) Elements of weather f) Weather station g) Weather record - temperature - humidity - rainfall - atmospheric pressure etc h) Attributes of weather i) Importance of weather 2. Climate j) Definition k) Differences between weather and climate. l) Factors affecting climate m) Elements of climate n) Climatograph o) Importance of climate 6. Classification of climate a) Greeks and Koppen's classifications b) Basis for the two classifications	**Inclusive and differentiated learning** **Individual seat work or mixed groups according to gender, abilities, learning styles, etc.** 1.Class Discussion: group learners to discuss the causes of weather and climatic changes; and state the importance of climate 2. Group presentation on the weather instruments and their uses. 3. Class exercise: Prepare a climatic chart and calculate the mean annual temperature, mean monthly temperature, range of rainfall and temperature, etc. 4. Outdoor observation to feel changes in the weather condition.	A. Primary Text General Geography in Diagrams (Pearson) B. Secondary Texts Abegunde, et al. Senior Secondary Geography Bk. 1 C Map reading for west Africa Certificate Physical and Human Geography C. Other resources WASSCE Q & A (PAPERS 1 &2) pictures and diagrams of instruments of elements weather, climatic data, climatic graph eg.Rain gauge, thermometer, hygrometer, barometer etc, venn diagram, internet researcher	**EXPECTED COMPENTENCIES** • Research and Problem Solving • Effective Communication Skills • Creativity and Innovation Skills • Digital Skills • Analytical Skills **ASSESSMENT STRATEGIES** **That can be used to check competencies. Select relevant options** • Fieldtrip • Oral questions • Assignments • Quiz

		c) Advantages and disadvantages of Greeks and Koppen's classifications 7. Climatic regions/natural a) Equatorial b) Tropical c) Mediterranean d) Hot and cold deserts e) Warm temperate f) Cool temperate g) Cold temperate h) Polar		Links: www.apsstudent.collegeboard.org	

SEMESTER TWO

GRADE: 11
PERIOD: IV
UNIT 1: PHYSICAL GEOGRAPGY—WEATHER AND CLIMATE
TOPIC: NATURAL VEGETATION AND HUMAN ECONOMIC ACTIVITY

LEARNING OUTCOMES	LEARNING OBJECTIVES	CONTENTS	ACTIVITIES	MATERIALS/ RESOURCES	COMPETENCY/ ASSESSMENT
Learners are able to discuss vegetation and the related economic activities in Liberia	**UPON COMPLETION OF THE TOPIC, LEARNERS WILL:** 1. Discuss vegetation 2. List the different types of natural vegetation 3. Summarize the factors that affect vegetation. 4. 4. Outline the economic activities in Liberia that are related to the natural vegetation	1. Natural Vegetation Definition and Types 2 Development of vegetation: a) Climatic, b) Biotic, c) Soil, etc. 3. Human Economic Activities a)Primary b) Secondary c) Problems And Solutions 4. Case Study: Liberia (Forest, Mountain, Savanna, Mangrove Swamps and Marshlands). .	**Inclusive and differentiated learning** **Individual seat work or mixed groups according to gender, abilities, learning styles, etc**. **Activities** 1.Class Discussion/Brainstorm: Define vegetation and relate it to climate; Name some human economic activities that affect the natural vegetation 2.Field trip with learners to show the various species of plants; 3.Home work: Outline the various types of natural and cultivated vegetation; learners do research and report on methods used in deforestation, afforestation and reforestation	A. Primary Text General Geography in Diagrams (Pearson) B. Secondary Texts Abegunde, et al. Senior Secondary Geography Bk. 1 C. Other resources Map reading for west Africa Certificate Physical and Human Geography WASSCE Q & A (PAPERS 1 &2) Grass, leaves, world vegetation map, internet researcher Links: www.apsstudent.collegeboard.org	**EXPECTED COMPENTENCIES** • Research and Problem Solving • Effective Communication Skills • Creativity and Innovation Skills • Digital Skills • Analytical Skills **ASSESSMENT STRATEGIES** **That can be used to check competencies. Select relevant options** • Fieldtrip • Oral questions • Assignments • Quizzes’

SEMESTER TWO

GRADE: 11
PERIOD: IV
UNIT 2: HUMAN GEOGRAPGY—PRIMARY INDUSTRY
TOPIC: AGRICULTURE

LEARNING OUTCOMES	OBJECTIVES	CONTENTS	ACTIVITIES	MATERIALS/RESOURCES	COMPETENCY/ ASSESSMENT
Learners are able to discuss agriculture and systems of farming as well as outline factors affecting agriculture	**UPON COMPLETION OF THE TOPIC, LEARNERS WILL:** 1. Outline primary industries 2. Identify factors affecting the development of primary industries 3. Discuss agriculture as a primary industry 4. Classify agriculture according to type 5. Compare the systems of farming 6. Explain the factors that affect agriculture and their importance	1. Definition of Primary Industries 2. Major Primary Industries Agriculture: i) Classification a) Subsistence and Commercial b) Crop and Animal Farming ii) Systems Of Farming : a) Shifting cultivation). b) Bush fallowing c) Mechanized farming d) Crop rotation e) Truck farming f) Pastoralism, Nomadism, Dairy farming, etc. iii) Problems Affecting Agriculture.	**Inclusive and differentiated learning** **Individual seat work or mixed groups according to gender, abilities, learning styles, etc**. 1 Class discussion: Learners define agriculture and relate it to primary industry. 2 Group work and debate on mechanize and subsistence farming in Liberia(boys vs girls) 3 Field trip for learners to observe farming sites. 4.Homework: Distinguish between intensive and extensive farming; outline the different farming methods in agriculture 5. Learners do research and report on why agriculture is a primary industry.	**A. Primary Text** General Geography in Diagrams (Pearson) **B. Secondary Texts** Abegunde, et al. Senior Secondary Geography Bk. 1 C**. Other resources** Map reading for west Africa, Certificate Physical and Human Geography, WASSCE Q & A (PAPERS 1 &2) Illustrative pictures and diagrams of subsistence and commercial, agricultural maps, data and statistics of world agricultural produce, Food and Agriculture Organization (FAO) reports Links: www.apsstudent.collegeboard.org	**EXPECTED COMPENTENCIES** • Research and Problem Solving • Effective Communication Skills • Creativity and Innovation Skills • Digital Skills • Analytical Skills **ASSESSMENT STRATEGIES That can be used to check competencies. Select relevant options** Fieldtrip Oral questions Assignments Quizzes’

SEMESTER TWO

GRADE: 11
PERIOD: IV
UNIT 2: HUMAN GEOGRAPGY—PRIMARY INDUSTRY
TOPIC: FISHING

LEARNING OUTCOMES	LEARNING OBJECTIVES	CONTENTS	ACTIVITIES	MATERIALS/ RESOURCES	COMPETENCY/ ASSESSMENT
Learners are able to explain fishing and its importance as well as outline conditions that favor fishing.	**upon completion of the topic, learners will:** 1. 1 Locate the major fishing grounds in the world 2. List the local and international methods of fishing 3. Explain conditions that favor fishing 4. 4. Discuss the importance of fishing	Fishing i) Major Fishing Grounds: a) The Grand Banks b) The coast of Peru c) The Sea of Japan etc. ii) Methods of Fishing: a) Hook and line b) The use of nets c) The use of wicker baskets, etc. iii) Conditions that Favor Fishing a) Meeting of warm and cool ocean currents b) Abundance of plankton, etc. iv) Importance of Fishing d) Problems and solutions e) Case study v) Fishing in west Africa	**Inclusive and differentiated learning** **Individual seat work or mixed groups according to gender, abilities, learning styles, etc**. 1.Class discussion: Define fishing and relate it to primary industry; State the importance of the fishing industry to the development of mankind; Outline conditions that favor fishing in Liberia 2. Home work: Outline the major fishing ground in the World. 3. Group work and presentation on the methods of fishing (boys vs girls) 4.Field trip for learners to observe major breeding sites and fishing grounds in and around the community.	A. Primary Text General Geography in Diagrams (Pearson) B. Secondary Texts Abegunde, et al. Senior Secondary Geography Bk. 1 C. Other resources Map reading for west Africa, Certificate Physical and Human Geography, WASSCE Q & A (PAPERS 1 &2) Pictures and diagrams of major world fishing, atlas and maps Links: www.apsstudent.collegeboard.org	**EXPECTED COMPENTENCIES** • Research and Problem Solving • Effective Communication Skills • Creativity and Innovation Skills • Digital Skills • Analytical Skills **ASSESSMENT STRATEGIES** **That can be used to check competencies. Select relevant options** Fieldtrip Oral questions Assignments Quizzes’

SEMESTER TWO

GRADE: 11
PERIOD: IV
UNIT 2: HUMAN GEOGRAPGY—PRIMARY INDUSTRY
TOPIC: MINING

LEARNING OUTCOMES	LEARNING OBJECTIVES	CONTENTS	ACTIVITIES	MATERIALS/ RESOURCES	COMPETENCY/ ASSESSMENT
Learners are able to discuss mining and relate the importance of mining to national development	**UPON COMPLETION OF THE TOPIC, LEARNERS WILL:** 1. .Explain mining 2. Classify the different types of minerals 3. Identify the major mineral producing countries of the world 4. Outline the uses of major minerals in the world 5. Analyze the importance of mining to national economies 6. Discuss some of the problems facing the mining industry in Liberia and other West African states	1. Mining i) Definition ii) Types of Minerals: a) Metallic (Ferrous and Non Ferrous) b) Non-Metallic c) Mineral Fuels iii) Uses of Selected Minerals: iv) Methods of Mining: a) Open Pit or Open Cast b) Adit c) Shaft or underground dredging d) Drilling v) Importance of the Mining Industry g) Infrastructural development, etc. vi) Problems and Solutions vii)Case Studies: a) Iron ore mining in Liberia b) Gold mining in Ghana and South Africa. c) Oil mining in the Delta Region of Nigeria. d) Copper mining in the Katanga Region of Congo DR	**Inclusive and differentiated learning** **Individual seat work or mixed groups according to gender, abilities, learning styles, etc**. **Activities** 2. Group work: Learners in a group use appropriate chart/pictures, to classify the different types of mineral resources; Group learners to outline the advantages and disadvantages of the mining industries in Liberia. 3. Class discussion: Outline the minerals that are extracted in Liberia 4. Field trip to a mining site to see how minerals are extracted from the ground. 5.Home work: Draw the map of the World and locate the major mineral producing countries.	**A. Primary Text** General Geography in Diagrams (Pearson) **B. Secondary Texts**Abegunde, et al. Senior Secondary Geography Bk. 1 C. **Other resources** Map reading for west Africa, Certificate Physical and Human Geography, WASSCE Q & A (PAPERS 1 &2) World geological maps, atlas, pictures and diagrams of mining site Links: www.apsstudent.collegeboard.org	**EXPECTED COMPENTENCIES** • Research and Problem Solving • Effective Communication Skills • Creativity and Innovation Skills • Digital Skills • Analytical Skills **ASSESSMENT STRATEGIES** **That can be used to check competencies. Select relevant options** Fieldtrip Oral questions Assignments Quizzes’

SEMESTER TWO

GRADE: 11
PERIOD: IV
UNIT 2: HUMAN GEOGRAPGY—PRIMARY INDUSTRY
TOPIC: LUMBERING

.LEARNING OUTCOMES	LEARNING OBJECTIVES	CONTENTS	ACTIVITIES	MATERIALS/ RESOURCES	COMPETENCY/ ASSESSMENT
Learners are able to discuss lumbering with emphasis on the economic values of tree species and provide solution to lumbering related problems	**upon completion of the topic, learners will:** 1. Explain lumbering 2. Classify the different methods of lumbering base on the type of forest 3. List the choice trees in lumbering. 4. Outline the factors affecting lumbering in Liberia and elsewhere 5. Discuss the importance of lumbering 6. Recommend solutions to the problems facing lumbering in Liberia	Lumbering: i) Definition ii) Methods of exploitation: iii) Factors affecting lumbering: iv) Importance Of Lumbering: a) Provision of jobs b) Construction c) Foreign exchange earner etc. vi) Problems And Solutions vii)Case Studies: a) Lumbering in Liberia b) Lumbering in the Congo Basin of Central Africa. c) Lumbering in West Africa	**Inclusive and differentiated learning** **Individual seat work or mixed groups according to gender, abilities, learning styles, etc**. **Activities** 1. Demonstration/Class exercise: Learners observe pictures/illustrations of lumbering activities, and report on the methods of lumbering 2 Class discussions: Learners provide information on methods of exploitation and factors affecting these. 3. Illustrations, let learners identify the types and species of plants in lumbering. 4. Field visit to a Saw Mill for students to observe the activities, and write a report on the activities of the mill. 5 Case study: lumbering in Liberia	**A. Primary Text:** General Geography in Diagrams (Pearson) **B. Secondary Texts** Abegunde, et al. Senior Secondary Geography Bk. 1 C. **Other resources** Map reading for west Africa, Certificate, Physical and Human Geography, WASSCE Q & A (PAPERS 1 &2) World vegetation map, atlas, pictures depicting logging scene, world timber production statistics Links: www.apsstudent.collegeboard.org	**EXPECTED COMPENTENCIES** • Research and Problem Solving • Effective Communication Skills • Creativity and Innovation Skills • Digital Skills • Analytical Skills **ASSESSMENT STRATEGIES That can be used to check competencies. Select relevant options** Fieldtrip Oral questions Assignments Quizzes’

SEMESTER TWO

GRADE: 11
PERIOD: V
UNIT 2: HUMAN GEOGRAPGY SECONDARY AND TERTIARY INDUSTRIES
TOPIC: MANUFACTURING

OUTCOMES	OBJECTIVES	CONTENTS	ACTIVITIES	MATERIALS/ RESOURCES	COMPETENCY/ ASSESSMENT
Learners are able to categorize industries as well as elaborate on the economic importance of industries in Liberia	**upon completion of the topic, learners will:** Categorize secondary industries 2. List the factors that affect the location of manufacturing industries 3. Examine the impact of manufacturing industries on the health of communities. 4. Emphasize the role of secondary industries in industrial development. 5. Classify manufacturing industries and briefly describe each class. 6. Discuss the categories of tertiary industries	**1 Manufacturing**: i) Definition, ii) Classification, iii) Major Industrial Regions. iv) Factors affecting the location of manufacturing industries, v) Importance of Manufacturing Industries:, etc. vi) vi) Problems Facing Manufacturing Industries: **2. Trade and Commerce**. Definition and types Internal, and External ii. **Transport and Development**: i. Definition ii. Means of Transport	**Inclusive and differentiated learning** **Individual seat work or mixed groups according to gender, abilities, learning styles, etc**. **Activities** 1. Field trips and excursions to selected factory/plants in Liberia for learners to observe manufacturing processes and write report on industrial activities. 2 Group discussion on the negative and positive impacts of manufacturing industries; indicate the various types of manufacturing industries and clearly explain their functions. 3 Home work: List factors that influence the location and development of manufacturing industries;	**A. Primary Text:** General Geography in Diagrams (Pearso B. Secondary Texts Abegunde, et al. Senior Secondary Geography Bk. 1 C. Other resources Map reading for west Africa, Certificate, Physical and Human Geography, WASSCE Q & A(PAPERS 1 &2) World map showing industrial regions, atlas, pictures depicting scene of manufacturing Links: www.apsstudent.collegeboard.org	**EXPECTED COMPENTENCIES** • Research and Problem Solving • Effective Communication Skills • Creativity and Innovation Skills • Digital Skills • Analytical Skills **ASSESSMENT STRATEGIES** **That can be used to check competencies. Select relevant options** Fieldtrip Oral questions Assignments Quiz Group presentation Tests

SEMESTER TWO

GRADE: 11
PERIOD: V
UNIT 2: HUMAN GEOGRAPGY—SECONDARY INDUSTRIES
TOPIC: SOURCES OF ENERGY, LOCATION AND DISTRIBUTION

OUTCOMES	OBJECTIVES	CONTENTS	ACTIVITIES	MATERIALS/RESOURCES	COMPETENCY/ASSESSMENT
Learners are able to identify and classify sources of energy, and state their importance to economic development.	**UPON COMPLETION OF THE TOPIC, LEARNERS WILL:** 1. Classify the different sources of energy 2. 2.Explain the forms of energy 3. 3 Analyze the factors affecting sources of energy	1. Sources of Energy: Classification: a) Renewable, and b)Non Renewable 2. Forms of Energy: Mineral Fuels (Fossil Fuels): E.g. Coal, Natural Gas, Petroleum and Uranium. 3. Location and Distribution Power Sources: Eg. Hydro _ Electric Power _ Rivers, Waterfalls, Dams Etc. a) Solar – Sunlight b) Wind c) Tidal d) Geothermal e) Underground f) Biomass - Organic Organisms 4. Factors Affecting Sources of energy a) Capital, b) Technology, c) Climate, Etc. 5. Importance energy 6. Problems and solutions of energy harnessing	**Inclusive and differentiated learning** **Individual seat work or mixed groups according to gender, abilities, learning styles, etc**. **Activities** 1. Class discussion: Outline the source of energy and state the categories or forms of energy; c 2. Home work: differentiate between renewable and non-renewable energy; Outline the factors affecting the sources of energy 3. Field trip out door in the community as well as, to a hydro-electric plant to identify sources of solar and electrical energy; 4. Group work: learners carry out research and report on the application of energy to the industrial activities.	A**. Primary Text**: General Geography in Diagrams (Pearson) **B.Secondary xts:**Abegunde, et al. Senior Secondary Geography Bk. C. **Other resources** Map reading for west Africa, Certificate, Physical and Human Geography, WASSCE Q & A (PAPERS 1 &2) World energy map, Atlas, pictures HEP, waterfall, solar plant, wind mill, world energy production reports Links: www.apsstudent.collegeboard.org	**EXPECTED COMPENTENCIES** • Research and Problem Solving • Effective Communication Skills • Creativity and Innovation Skills • Digital Skills • Analytical Skills **ASSESSMENT STRATEGIES** **That can be used to check competencies. Select relevant options** • Fieldtrip • Oral questions • Assignments • Quiz • Group presentation, Tests

SEMESTER TWO

GRADE: 11
PERIOD: VI
UNIT 2: PRACTICAL GEOGRAPHY—MAP READING
TOPIC: PRINCIPLES OF GEOGRAPHIC INVESTIGATION

OUTCOMES	OBJECTIVES	CONTENTS	ACTIVITIES	MATERIALS/ RESOURCES	COMPETENCY/ ASSESSMENT
Learners are able to: analyze map information and reshape distances on maps; locate positions on the earth using grid system as well as calculate the gradient of slope	**UPON COMPLETION OF THE TOPIC, LEARNERS WILL:** 1. Analyze map information 2. Distinguish various kinds of maps 3. Apply map scales to reduce, enlarge, and calculate areas and ground distances of maps 4. Calculate the gradient of slopes 5. Convert from one scale to another 6. Discover the positions of places using the grid system, or longitudes and latitudes 7. Detect directions using the compass and bearing 8. Design diagrams, profiles and sketches resulting from survey exercises	1 Map – A Definition 2. Map Characteristics 3. Types of Maps: 4. Importance/Uses of Maps: 5. Limitations of Maps 6. Definition of Map Scale 7. Types of Map Scales: Characteristics of each type of Scale 8. Conversion of Map Scales	**Inclusive and differentiated learning** **Individual seat work or mixed groups according to gender, abilities, learning styles, etc**. **Activities** 1 .Class Discussion: Outline the kinds of map and indicate their characteristics 2 Home work/class exercise: Draw map to scale, reduce and enlarge maps and practice the uses of rulers, protractors; Draw the prismatic compass and illustrate its direction and bearing 4.Group work: group students to survey the school compound or playground and prepare a sketch draft of the survey	A. Primary **Text:** General Geography in Diagrams (Pearson) **B. Secondary Texts:**Abegunde, et al. Senior Secondary Geography Bk. 1 C. **Other resources** Map reading for west Africa, Certificate, Physical and Human Geography WASSCE Q & A (PAPERS 1 &2) Topographical maps, ruler, pencil, paper, calculator Geometry set Links: www.apsstudent.collegeboard.org	• **EXPECTED COMPENTENCIES** Research and Problem Solving • Effective Communication Skills • Creativity and Innovation Skills • Digital Skills • Analytical Skills **ASSESSMENT STRATEGIES** **That can be used to check competencies. Select relevant options** • Fieldtrip • Oral questions • Assignments • Quiz • Group presentation • Tests

SEMESTER TWO

GRADE: **11**
PERIOD: **VI**
UNIT 2: **PRACTICAL GEOGRAPHY—MAP READING**
TOPIC: **STATISTICAL MAPS AND DIAGRAMS**

LEARNING OUTCOMES	LEARNING OBJECTIVES	CONTENTS	ACTIVITIES	MATERIALS/ RESOURCES	COMPETENCY/ ASSESSMENT
Learners are able to translate statistical information into diagrams and graphs	**UPON COMPLETION OF THE TOPIC, LEARNERS WILL:** 1. 1 Discuss the sources of statistical data 2. Design different kinds of graphs based on statistical data 3. Explain the advantages and disadvantages of the various kinds of graphs	1 Sources of Statistical Data. 2. The Use of Statistics and Diagrams. 3. Limitations of Statistics 4.Tabulation of Statistics 5. Graphical Representation of Statistics line graph) • Advantages and Disadvantages • Bar graphs (histograms, simple bar graph, divergent bar graphs, and percentage bar graphs). • Circle graphs (pie charts, proportional pie charts, and proportional circles). • Advantages and Disadvantages	**Inclusive and differentiated learning** **Individual seat work or mixed groups according to gender, abilities, learning styles, etc**. **Activities** 1 .**Group work/Survey**: Group work on the collection and presentation of statistical data on both the bar and pie charts (boys vs girls) 2 **Home work/assignment**: Outline the importance of statistical data in map reading 3.**Class discussion/exercise**: State the differences among statistics, diagrams and graphs; outline the advantages and disadvantages of statistics and graphs	A.General Geography in Diagrams (Pearson) B. Secondary Texts Abegunde, et al. Senior Secondary Geography Bk. 1 C. Other resources Map reading for west Africa, Certificate, Physical and Human Geography, WASSCE Q & A (PAPERS 1 &2) Graph sheets, geometry set, data, illustrative diagrams and graph Links: www.apsstudent.collegeboard.org	**EXPECTED COMPENTENCIES** • Analytical skill • Research and problem solving skill • Effective communication **ASSESSMENT STRATEGIES** **That can be used to check competencies. Select relevant options** • Survey report • Oral questions • Assignments • Quiz • Group presentation • Tests

SEMESTER ONE

GRADE: 12
PERIOD: 1
UNIT 2: PRACTICAL GEOGRAPHY—MAP READING
TOPIC 1: KINDS OF MAPS AND THEIR USES

OUTCOMES	OBJECTIVES	CONTENTS	ACTIVITIES	MATERIALS/ RESOURCES	COMPETENCY/ ASSESSMENT
Learners are able to analyze map information and convert, between map scales .	**UPON COMPLETION OF THE TOPIC, LEARNERS WILL:** 1. .Explain map information 2. Distinguish between the various kinds of maps 3. Apply map scales to reduce, enlarge, and calculate areas and ground distances 4. 4. Convert from one map scale to another	1 Map – **A** Definition 2. Map Characteristics 3. Types of Maps: Road maps, Weather maps, Atlases, Topographical maps etc 4. Importance/Uses of Maps: a) Give information b) Identify landscape c) Interpret landscape d) Find directions and positions e) Find distances, 5. Limitations of Maps Definition of Map Scale. 6 Types of Map Scales:	**Inclusive and differentiated learning** **Individual seat work or mixed groups according to gender, abilities, learning styles, etc**. **Activities** 1. Group work: Draw maps to scale. b) Reduce and enlarge maps and Scales. c) Practice the uses of rulers, protractors and strings. 2. Group discussion: Learners discuss the uses of maps 3.Field work: Field visit to the Department of cartography at the Ministry of Lands and Mines & Energy/LISGIS to observe the various types of map and their uses, and write a report on the result of the trip 4.Class exercise: convert from one map scale to another scale. 5. Home work: Draw linear scale using ruler	A. General Geography in Diagrams (Pearson) B. Secondary Texts Abegunde, et al. Senior Secondary Geography Bk. 1 C. Other resources Map reading for west Africa, Certificate, Physical and Human Geography, WASSCE Q & A (PAPERS 1 &2) Graph sheets, geometry set, illustrative diagrams and graph Links: www.apsstudent.collegeboard.org	**EXPECTED COMPENTENCIES** • Research and Problem Solving • Effective Communication Skills • Creativity and Innovation Skills • Digital Skills • Analytical Skills **ASSESSMENT STRATEGIES That can be used to check competencies. Select relevant options** Fieldtrip Oral questions Assignments Quiz Group presentation Tests

SEMESTER ONE

GRADE: 12
PERIOD: 1
UNIT 2: PRACTICAL GEOGRAPHY—MAP READING
TOPIC 11: FINDING POSITIONS, DIRECTIONS AND USING CONVENTIONAL SIGNS AND SYMBOLS

OUTCOMES	OBJECTIVES	CONTENTS	ACTIVITIES	MATERIALS/ RESOURCES	COMPETENCY/ ASSESSMENT
Learners are able to locate positions on the earth and recognize conventional signs and symbols	**UPON COMPLETION OF THE TOPIC, STUDENTS WILL BE ABLE TO:** 1. Determine positions using lines Latitudes and longitude 2. Apply the compass points and the Angular Bearings to show direction 3. Interpret conventional signs and symbols 4. Identify the types of signs and symbols 5. Explain the importance and uses of conventional signs and symbols 6. 6 Outline the limitations of conventional signs and symbol	1. Locate Positions on maps using lines latitude and longitude. 2. Locate Position using Grid References 3. Direction: a) Using the compass points. b) Using the Angular Bearings c) Using the compass points and Bearings 4. Types of North: a) Magnetic b) True c) grid North 5. Definition of Conventional Signs and Symbols. 6. Types of Signs and Symbols: a) Point symbols b) Line symbols c) Literal symbols d) Pictorial symbols e) Color symbols 7. Importance and Uses of Conventional Signs and Symbols. 8. Limitation in the Use of Signs and Symbols.	**Inclusive and differentiated learning Individual seat work or mixed groups according to gender, abilities, learning styles, etc**. **Class exercise/Assignment**: Draw grid map to show eastings and northings; divide learners into two groups (mixed) and let each group draw the sixteenth(16) intermediate points of the compass; use compass points and angular bearing to find directions of a structure from a given point on maps; Draw the types of conventional signs and symbols	A. Primary text General Geography in Diagrams (Pearson) B. Secondary Texts Abegunde, et al. Senior Secondary Geography Bk. 1 C.Other resources Map reading for west Africa, Certificate, Physical and Human Geography, WASSCE Q & A (PAPERS 1 &2) geometry set, illustrative diagrams and graph Links: www.apsstudent.collegeboard.org	**EXPECTED COMPENTENCIES** Analytical skill • Research and problem solving skill • Effective communication • Creative skills **ASSESSMENT STRATEGIES That can be used to check competencies. Select relevant options** Oral questions Assignments Group presentation Quizzes, Tests

SEMESTER ONE

GRADE: 12
PERIOD: II
UNIT 2: PRACTICAL GEOGRAPHY—MAP READING
TOPIC 1: METHODS OF REPRSENTING RELIEF AND SIMPLE CONTOUR LANDFORMS;

LEARNING OUTCOMES	LEARNING OBJECTIVES	CONTENTS	ACTIVITIES	MATERIALS/ RESOURCES	COMPETENCY/ ASSESSMENT
Learners are able to explain contour and gradient as well as calculate gradient of slopes	**UPON COMPLETION OF THE TOPIC, LEARNERS WILL:** 1. 1Explain Describe contour lines 2. 2 Distinguish the characteristic features of the different methods of showing relief on maps 3. Discuss the advantages and disadvantages of the different methods of showing relief 4. Identify the different contour landforms 5. Describe gradient 6. 6. Calculate the gradient of slopes	1.Methods of Representation of relief a) contours Definition b) spot height c) trigonometrical station d) bench mark e) hill shading f) form lines g) hatchures 2. Slope: - concave) - convex) - steep - gentle - even -uneven 3. Contour Landforms: i. Plateau ii. Ridge iii. Valley iv. Spur, v). Col vi) Saddle vii) Pass	**Inclusive and differentiated learning** **Individual seat work or mixed groups according to gender, abilities, learning styles, etc**. **Activities** 1. Home work: Draw the different symbols used to show reliefs on maps. 2. Class discussion: learners discuss different types of slopes and the methods of calculating the gradients of slopes; 3 Group work: identify all the contour landforms; differentiate relief map from other types of map; 4.Class exercise/work: Using profile of cross-section, calculate the vertical exaggeration;	**A. Primary Text** General Geography in Diagrams (Pearson) B. **Secondary Texts** Abegunde, et al. Senior Secondary Geography Bk. 1 **C. Other resources** Map reading for west Africa, Certificate, Physical and Human Geography, WASSCE Q & A (PAPERS 1 &2) Topographical maps, **graph sheets, geometry set, thread, sheet of paper, calculator** Links:	**EXPECTED COMPENTENCIES** • Research and Problem Solving • Effective Communication Skills • Creativity and Innovation Skills • Digital Skills • Analytical Skills **ASSESSMENT STRATEGIES** **That can be used to check competencies. Select relevant options** • Oral questions • Group presentation, Quizzes, Assignments, • Tests

		viii) Gap ix) Knoll x) Cuesta etc 4 Gradient a) Definition b) Calculation of Gradient c) Vertical Exaggeration 5. Cross section~~al~~ drawing/annoted cross profile a) Framework b) Alignment :		www.apsstudent.collegeboard.org	

SEMESTER ONE

GRADE: 12
PERIOD: II
UNIT 2: PRACTICAL AND REGIONAL GEOGRAPHY—MAP READING
TOPIC 11: GRAPHICAL REPRESENTATION OF STATISTICAL DATA

OUTCOMES	OBJECTIVES	CONTENTS	ACTIVITIES	MATERIALS/ RESOURCES	COMPETENCY/ ASSESSMENT
Learners are able to discuss the sources of statistical data and design different kinds of graphs	**upon completion of the topic, learners will:** 1. Discuss the sources of statistical data 2. Design different kinds of graphs based on statistical data 3. 3. Explain the advantages and disadvantages of the various kinds of graphs	1 Sources of Statistical Data. 2. The Use of Statistics and Diagrams. 3. Limitations of Statistics 4. Tabulation of Statistics 5. Graphical Representation of Statistics • Choice of scale • The use of squared- paper in representing statistical data 6.Types of graphs • Line graphs (simple line graph, combine line graph, and compound line graph) • Advantages and Disadvantages • Bar graphs (histograms, simple bar graph, divergent bar graphs, and percentage bar graphs). • Circle graphs (pie charts, proportional pie charts, and proportional circles).	**Inclusive and differentiated learning** **Individual seat work or mixed groups according to gender, abilities, learning styles, etc**. **Activities** 1.Group discussion: Group learners (mixed) to discuss the difference between statistical diagrams and statistical maps and their uses; Learners discuss the advantages and disadvantages of graphs as statistical tools; 2. Class work: Draw the types of graphs on poster sheets; 3. Assignment: Group presentation on the sources of statistical data;	**A. Primary Text** General Geography in Diagrams (Pearson) **B. Secondary Texts** Abegunde, et al. Senior Secondary Geography Bk. 1 C. **Other resources** Map reading for west Africa, Certificate, Physical and Human Geography, WASSCE Q & A (PAPER 1 &2) Graph sheets, pencil geometry set, data, illustrative diagrams and graph Links: www.apsstudent.collegeboard.org	**EXPECTED COMPENTENCIES** • Research and Problem Solving • Effective Communication Skills • Creativity and Innovation Skills • Digital Skills • Analytical Skills **ASSESSMENT STRATEGIES** **That can be used to check competencies. Select relevant options** Oral questions Assignments Group presentation, Quizzes Test

SEMESTER ONE

GRADE: 12
PERIOD: II
UNIT 2: PRACTICAL AND REGIONAL GEOGRAPHY—MAP READING
TOPIC 111: DRAINAGE AND RIVER BASINS

LEARNING OUTCOMES	LEARNING OBJECTIVES	CONTENTS	ACTIVITIES	MATERIALS/ RESOURCES	COMPETENCY/ ASSESSMENT
Learners are able to classify drainage patterns and explain the influence it has on settlement and communication	**UPON COMPLETION OF THE TOPIC, LEARNERS WILL:** 1. Describe drainage and drainage systems 2. Identify drainage patterns 3. Explain the influence of drainage on settlement and communication 4. Describe drainage basin	1.Drainage a) Definition 2.Drainage Systems • inland drainage, • River capture, etc 3.Types of Drainage Patterns • Dendritic • Trellis, • Radial, etc 4.River Profile • Upper course • Middle course, • Lower course 5. Influence of Drainage on Settlement 6. Influence of Drainage on Communication	**Inclusive and differentiated learning** **Individual seat work or mixed groups according to gender, abilities, learning styles, etc**. **Activities** 1.Group discussion: *Group learners (mixed) to discuss drainage and its systems;* distinguish between natural and artificial drainage, and state the economic importance; 2.Home work/Class work: Learners draw a diagram of the different drainage patterns; 3. Brainstorm: Learners brainstorm and relate drainage to activities in settlements.	**A. Primary Text** General Geography in Diagrams (Pearson) B. **Secondary Texts** Abegunde, et al. Senior Secondary Geography Bk. 1 **C. Other resources** Map reading for west Africa, Certificate, Physical and Human Geography, WASSCE Q & A (PAPERS 1 &2) Topographical maps, illustrative diagrams and internet researcher Links: www.apsstudent.collegeboard.org	**EXPECTED COMPENTENCIES** • Research and Problem Solving • Effective Communication Skills • Creativity and Innovation Skills • Digital Skills • Analytical Skills **ASSESSMENT STRATEGIES** **That can be used to check competencies.** **Select relevant options** • Oral questions • Assignments • Group presentation • Quizzes • Tests

SEMESTER ONE

GRADE: 12
PERIOD: III
UNIT 2: PRACTICAL AND REGIONAL GEOGRAPHY—MAP READING
TOPIC 1: ELEMENTARY SURVEYING

OUTCOMES	OBJECTIVES	CONTENTS	ACTIVITIES	MATERIALS/ RESOURCES	COMPETENCY/ ASSESSMENT
Learners are able to demonstrate skills and techniques to conduct survey	**Upon completion of the topic, learners will:** 1. Identify the instruments used by surveyors in surveying. 2. Demonstrate skills and techniques of survey on the field. 3. Design diagrams, profiles and sketches resulting from survey exercises. 4. Identify obstacles in ranging and chaining 5. Explain the different methods of survey Outline the advantages and disadvantages of the different survey methods	1 Definition of Survey 2. Description and uses of Chain Survey Equipment 3. Types of Traverse surveying: Closed traverse Open traverse 5. Methods of Traverse surveying: 6. Advantages and disadvantages of survey methods	**Inclusive and differentiated learning** **Individual seat work or mixed groups according to gender, abilities, learning styles, etc**. **Activities** 1.Group discussion: Group learners to discuss the different survey instruments and their uses; State the advantages and disadvantages of the different methods of survey; Learners discuss and relate drainage to activities in settlements 2.Group exercise on survey field work and prepare chart from information gathered from survey field work; 3. Assignment: Learners draw a diagram of the different drainage patterns	**A. Primary Text** General Geography in Diagrams (Pearson) B.**Secondary Texts** Abegunde, et al. Senior Secondary Geography Bk. 1 C. Other resources Map reading for west Africa, Certificate, Physical and Human Geography, WASSCE Q & A (PAPER 1 &2) Field note book, chain arrows or pins, compases, surveyor's band, station pegs, theodolite, ranging poles, tape measure, optical square, offset staff, cross-staff, watkin's clinometer, global position system or their pictures Links: www.apsstudent.collegeboard.org	**EXPECTED COMPENTENCIES** • Research and Problem Solving • Effective Communication Skills • Creativity and Innovation Skills • Digital Skills • Analytical Skills **ASSESSMENT STRATEGIES** **That can be used to check competencies. Select relevant options** Field survey report Oral questions Assignments

SEMESTER ONE

GRADE: 12
PERIOD: III
UNIT 2: PRACTICAL AND REGIONAL GEOGRAPHY—MAP READING
TOPIC 11: BASIC CONCEPT OF GIS

LEARNING OUTCOMES	LEARNING OBJECTIVES:	CONTENTS	ACTIVITIES	MATERIALS/ RESOURCES	COMPETENCY/ ASSESSMENT
Learners are able to elaborate on the Geographic Information System	**UPON COMPLETION OF THE TOPIC, LEARNERS WILL:** 1. Explain Geographic Information System (GIS) 2. Outline the sources of geographical data 3. Discuss the importance of geographical data and the GIS 4. Examine the components of GIS 5. Describe the procedure of GIS 6. 6. Explain the relationship between GIS and remote sensing	1 Meaning of Geographic Information System (GIS). 2 Geographic Data 3 Sources of GIS: 4 Importance of Geographic Data and The GIS 5 Components of GIS Hardware And Software : 6 Procedures: 7 Satellite Remote Sensing - Definition of Concepts 8 GIS Implementation	**Inclusive and differentiated learning** **Individual seat work or mixed groups according to gender, abilities, learning styles, etc**. **Activities** **Class discussion/Exercise/ assignment**: Group learners to discuss GIS, Name the components of GIS hardware and software and the procedures of GIS; Learners explain the relationship between GIS and Remote Sensing; Learners outline the importance of GIS as a source of geographic information.	A.**Primary Text** General Geography in Diagrams (Pearson) B. **Secondary Texts** Abegunde, et al. Senior Secondary Geography Bk. 1 C. Map reading for west Africa, Certificate, Physical and Human Geography, WASSCE Q & A (PAPERS 1 &2)computer system with GIS software installed, maps, air photo, satellite images, sketches showing GIS components, slide showing GIS components –eg. GPS, computer, models, pictures, films Links: www.apsstudent.collegeboard.org	**EXPECTED COMPENTENCIES** • Research and Problem Solving • Effective Communication Skills • Creativity and Innovation Skills • Digital Skills • Analytical Skills **ASSESSMENT STRATEGIES That can be used to check competencies. Select relevant options** • Oral questions • Assignments • Quizzes' • Tests • Group presentation

SEMESTER TWO

GRADE: 12
PERIOD: IV
UNIT 2: HUMAN AND REGIONAL GEOGRAPHY OF LIBERIA AND AFRICA
TOPIC: LIBERIA

LEARNING OUTCOMES	LEARNING OBJECTIVES:	CONTENTS	ACTIVITIES	MATERIALS/ RESOURCES	COMPETENCY /ASSESSMENT
Learners are able to describe Liberia in terms of vegetation, size,soil types and settlement.	**UPON COMPLETION OF THE TOPIC, LEARNERS WILL:** Discuss climate and the factors that affect climate 2. List the vegetation zones of Liberia and factors that affect vegetation 3. Classify soil types of Liberia 4. Outline the causes of soil erosion 5. Compare the settlement pattern of Liberia 6. Describe the five geographical regions of Liberia 7.Outline the location and size of Liberia	Location, Position and Size of Liberia Relief of Liberia Drainage and lakes Climate of Liberia Natural Vegetation of Liberia Soils of Liberia i. Soil types ii. soil erosion Population and Settlement	***INCLUSIVE AND DIFFERENTIATED LEARNING*** **Individual seat work or mixed groups according to gender, abilities, learning styles, etc**. **Activities** 1.Class work/Exercise: learners discuss the location, position and size of Liberia using appropriate map; Outline and discuss the natural features of Liberia; Discuss the size, distribution and majority of the population of Liberia 2. Assignment: Learners research and report on how erosion affects population and settlement in Liberia.	**A. Primary Text** General Geography in Diagrams (Pearson) B. **Secondary Texts** Abegunde, et al. Senior Secondary Geography Bk. 1 **C. Other Resources** Map reading for west Africa, Certificate, Physical and Human Geography, WASSCE Q & A PAPERS 1 &2) Atlas, political, relief, drainage, vegetation, demographic, land use, maps, soil samples, pictures showing towns, cities, villages and climatic data Links: www.apsstudent.collegeboard.org	**EXPECTED COMPENTENCIES** • Research and Problem Solving • Effective Communication Skills • Creativity and Innovation Skills • Digital Skills • Analytical Skills **ASSESSMENT STRATEGIES** **That can be used to check competencies. Select relevant options** • Oral questions • Assignments • Quizzes' • Tests • Group presentation

SEMESTER TWO

GRADE: 12
PERIOD: lV
UNIT 2: HUMAN AND REGIONAL GEOGRAPHY OF AFRICA
TOPIC: WEST, EAST, NORTH, SOUTH AND CENTRAL AFRICA

LEARNING OUTCOMES	LEARNING OBJECTIVES:	CONTENTS	ACTIVITIES	MATERIALS/ RESOURCES	COMPETENCY/ ASSESSMENT
Learners are able to outline the geo-political regions of Africa, identify the territorial boundaries and distinguish the natural features	**UPON COMPLETION OF THIS TOPIC, LEARNERS WILL:** Discuss the countries, size and the political boundaries of the various regions of Africa 2. Examine the physical features and natural resources of the various African regions 3. Discuss trade and communications relative to the population of the various regions 4. Analyze factors influencing climate and agricultural activities of Africa	1 The Geography of West Africa: 2 Geography of East Africa: 3 Geography of Equatorial and Central Africa 4. The geography of North Africa: activities. 5. The Geography of Southern Africa	***INCLUSIVE AND DIFFERENTIATED LEARNING*** **Individual seat work or mixed groups according to gender, abilities, learning styles, etc**. **Activities** 1. Class Discussion/Exercise: learners discuss the regions of Africa, the countries, size, and population of Africa with appropriate maps; outline and discuss the natural features of the various African regions; 2. Group assignment: Learners research and report on how trade, agriculture and communication technology influence economic development of the various African regions	**A. Primary Text** General Geography in Diagrams (Pearson) B. **Secondary Texts**Abegunde, et al. Senior Secondary Geography Bk. 1 **C. Other resources** Map reading for west Africa, Certificate, Physical and Human Geography, WASSCE Q & A (PAPER 1 &2) Atlas, political, relief map, vegetation, drainage, demographic, land use, climatic maps, documentaries, model, pictures showing manufacturing industries, cities, mining site and major sea ports, Links: www.apsstudent.collegeboard.org	**EXPECTED COMPENTENCIES** • Research and Problem Solving • Effective Communication Skills • Creativity and Innovation Skills • Digital Skills • Analytical Skills **ASSESSMENT STRATEGIES** **That can be used to check competencies. Select relevant options** Oral questions Assignments Quizzes' Tests Group presentation

SEMESTER TWO

GRADE: **12**
PERIOD: **V**
UNIT 2: **HUMAN AND REGIONAL GEOGRAPHY OF LIBERIA**
TOPIC: **PRIMARY AND TERTIARY INDUSTRIES OF LIBERIA**

LEARNING OUTCOMES	LEARNING OBJECTIVES:	CONTENTS	ACTIVITIES	MATERIALS/ RESOURCES	COMPETENCY/ ASSESSMENT
Learners are able to analyze the Liberian economy and recommend solutions to improve the economic system	**UPON COMPLETION OF THIS TOPIC, LEARNERS WILL:** Differentiate the primary, secondary, and tertiary sectors of the economy of Liberia 2. Discuss the importance of each sector to the economic and infrastructural development of Liberia 3. Debate the problems hampering the growth and development of Liberia's economy. 4. Recommend ways to improve the primary, secondary and tertiary industries of Liberia	1. Agriculture I Case Study: Rubber plantation in Liberia (Firestone Operations) Current trend and prospects 2. Lumbering 3. Fishing 4. Trade and Commerce 5. Transport and Development 6.Tourism	***INCLUSIVE AND DIFFERENTIATED LEARNING*** **Individual seat work or mixed groups according to gender, abilities, learning styles, etc**. **Activities** 1. Class discussion: learners discuss the three sectors of the Liberian economy; 2. Group assignment: Group report on problems affecting economic growth and recommend possible solutions; 3. Field trip /excursion: visit to industrial sites to observe activities and problems associated with production processes; 4. Individual assignment: Learners research and report on the different industries and their production processes.	**A. Primary Text** General Geography in Diagrams (Pearson) B. **Secondary Texts** Abegunde, et al. Senior Secondary Geography Bk. 1 **C. Other resources** Map reading for west Africa, Certificate, Physical and Human Geography, WASSCE Q & A (PAPERS 1 &2) Atlas, vegetation drainage map, documentaries on commercial activities, exports and imports, scene of industrial site, scene of mining, site, tracing paper, picture of beaches and holiday resort Links: www.apsstudent.collegeboard.org	**EXPECTED COMPENTENCIES** • Research and Problem Solving • Effective Communication Skills • Creativity and Innovation Skills • Digital Skills • Analytical Skills **ASSESSMENT STRATEGIES** **That can be used to check competencies. Select relevant options** • Field report • Oral questions • Assignments • Quizzes' • Tests • Group presentation

SEMESTER TWO

GRADE: 12
PERIOD: V
UNIT 2: HUMAN AND REGIONAL GEOGRAPHY- WORLD POPULATION AND SETTLEMENT
TOPIC: POPULATION AND SETTLEMENT

LEARNING OUTCOMES	OBJECTIVES:	CONTENTS	ACTIVITIES	MATERIALS/ RESOURCES	COMPETENCY/ ASSESSMENT
Learners are able to: Describe the world population in relation to distribution and movements. Discuss settlement patterns and the consequences of migration. Adopt family planning as a means of population control	**UPON COMPLETION OF THE TOPIC, LEARNERS WILL:** Explain the concept of world population 2. Describe population distribution patterns of the world. 3. Distinguish between overpopulation and under population 4. Outline factors which influence population movements 4. Discuss why and how population census is conducted 5. Identify the types of settlements and settlement patterns. 6. Explain the consequences of migration at the source and receiving regions. 7. Delineate family planning and empowerment	1. World Population –definition, distribution, factors affecting growth. Terms associated with population growth, etc. 2. Settlement: definition; types, factors affecting settlement growth, settlement patterns and functions. 3 Population control and family planning	INCLUSIVE AND DIFFERENTIATED LEARNING **Individual seat work or mixed groups according to gender, abilities, learning styles, etc**. **Activities** 1. Home work: Draw population maps indicating densely and sparsely population regions. 2. Class Debate: Hold debate to discuss population control in relation to family planning and women empowerment. 3. Class work: List some overpopulated and underpopulated countries. 4. Field trip/exercise: to identify types of settlements, over and under-populated regions of Liberia.	**A. Primary Text** General Geography in Diagrams (Pearson) B. **Secondary Texts** Abegunde, et al. Senior Secondary Geography Bk. 1 C. **Other resources** Map reading for west Africa, Certificate, Physical and Human Geography Atlas, globe, demographic map, population data, pictures showing densely and sparely populated areas Links: www.apsstudent.collegeboard.org	**EXPECTED COMPENTENCIES** • Research and Problem Solving • Effective Communication Skills • Creativity and Innovation Skills • Digital Skills • Analytical Skills **ASSESSMENT STRATEGIES** **That can be used to check competencies. Select relevant options** • Field report • Oral questions • Assignments • Quizzes' • Tests • Group report .

SEMESTER TWO

GRADE: 12
PERIOD V
UNIT 2: PHYSICAL GEOGRAPHY-
TOPIC: CLIMATE AND VEGETATION

LEARNING OUTCOMES	OBJECTIVES:	CONTENTS	ACTIVITIES	MATERIALS/ RESOURCES	COMPETENCY/ ASSESSMENT
Learners are able to relate climate and vegetation as well as analyze climatic data	**UPON COMPLETION OF THE TOPIC, LEARNERS WILL:** 1. Differentiate between climate and vegetation 2. List the elements of weather and climate 3. 4.Analyze climatic data using chart 4. 5.Discuss the different types of natural vegetation 5. 6.Examine the factors that affect vegetation	1 Define climate and name its elements: 2 Differences between weather and climate. 3 Discuss the elements of weather and climate: 4Preparation of climatic Chart. 5 Define Natural Vegetation 6Factors affecting the development of vegetation: 7. Case Study: Liberia (Forest, Mountain, Savanna, Mangrove Swamps and Marshlands).	**INCLUSIVE AND DIFFERENTIATED LEARNING** **Individual seat work or mixed groups according to gender, abilities, learning styles, etc**. **Activities** 1.Class discussion: the causes of weather and climate changes; importance of climate and vegetation; 2.Group work: Group presentation on the weather instruments and their uses. 3. Class work/exercise: Prepare a climatic chart and calculate the mean annual temperature, mean monthly temperature, range of rainfall and temperature, etc.. 4. Assignment: Learners do research and report on methods used in deforestation, afforestation and reforestation 5. Field trip: learners move outdoor to feel and observe changes in the weather condition.	**A. Primary Text** General Geography in Diagrams (Pearson) B. **Secondary Text**Abegunde, et al. Senior Secondary Geography Bk. 1 **C. Other resource** Map reading for west Africa, Certificate, Physical and Human Geography, WASSCE Q & A (PAPER 1 &2) Links: www.apsstudent.collegeboard.org	**EXPECTED COMPENTENCIES** • Research and Problem Solving • Effective Communication Skills • Creativity and Innovation Skills • Digital Skills • Analytical Skills **ASSESSMENT STRATEGIES** **That can be used to check competencies. Select relevant options** Oral questions Assignments Quizzes' Tests

SEMESTER TWO

GRADE: 12
PERIOD: Vl
TOPIC: GENERAL REVISION

1. **MAP READING**
2. **PRIMARY, SECONDARY AND TERTIARY INDUSTRIES OF LIBERIA**
3. **CLIMATE AND NATURAL VEGETATION**
4. **REGIONAL GEOGRAPHY OF AFRICA**
5. **POPULATION AND SETTLEMENT**

OUTCOMES	OBJECTIVES	CONTENTS	ACTIVITIES	MATERIALS/ RESOURCES	COMPETENCY/ ASSESSMENT
Learners are able to demonstrate understanding of Geographic related topics	**UPON COMPLETION OF THISREVIEW, LEARNERS WILL:** 1. Recap, and remember the definitions, elements, description and activities of the geographic topics listed above, and prepare for their school as well as WASSCE exams	1 Map Reading 2 Types of industries of Liberia 3 Climate and natural vegetation 4 Regional Geography of Africa. 5 Population and Settlement	INCLUSIVE AND DIFFERENTIATED LEARNING **Individual seat work or mixed groups according to gender, abilities, learning styles, etc**. **Activities** GENERAL REVIEW 1. Class discussion 2. Group presentation 3. Individual Project 4. Facilitator provide clarity on questions learners may post	**A. Primary Text** General Geography in Diagrams (Pearson) B. **Secondary Text** Abegunde, et al. Senior Secondary Geography Bk. 1 **C. Other resource** Map reading for west Africa, Certificate, Physical and Human Geography , WASSCE Q & A (PAPER 1 &2) Links: www.apsstudent.collegeboard.org	**EXPECTED COMPENTENCIES** • Research and Problem Solving • Effective Communication Skills • Creativity and Innovation Skills • Digital Skills • Analytical Skills **ASSESSMENT STRATEGIES That can be used to check competencies. Select relevant options** • Fieldtrip • Oral questions • Assignments • Quizzes' • Tests