

Geography Syllabus for Grades 9 and 10

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Introduction

The purposes of first cycle secondary education are bridging general education to preparatory of higher education and to technical vocational education and training (TVET), and preparing learners to the world of work. This level is also the highest level of general education under the Ethiopian educational structure.

Geography, as component of general education, contributes to the realization of the above purposes. The unique nature of the subject geography helps learners form bases for the understandings, the interrelationship and interaction of phenomena in the society and the world. This condition plays important role in enabling learners to see their future choice of education carrier/training in the context of the well being of the individual and people in their respective as well as world society. It also enhance the presence of informed participation in relation to keeping local and global environment healthy for the sake of future generation. Within the framework of the above understandings, geography has been one of the subjects given in our schools.

Currently, quality has become an issue in our education system. Research and learning assessment reports (like national learning assessment and joint review mission of MoE) indicated us that the performance of learners was below what is expected. Besides, need assessment reports made in relation to the realization of geography curriculum has shown us the need for reviewing our curriculum. As a whole, all these reports forced us to revise our geography curriculum in line of competency based approach which is defined in our new curriculum frame work.

Thus, the present geography curriculum has been made suitable for the realization of active learning methods and out come based learning. The curriculum is also revisited to make it competent to the international standard. Moreover, it gives greater opportunity to teachers than the previous curriculum so that they can add their professional input and implement in a flexible way. The material is prepared by team of experts and teachers coming from MoE and regions.

For clarity purposes, this curriculum is made to contain:

- Profile of geography students at the end of grade ten which shows the contribution of attending geography lesson in realizing the expected general profile of learners at the end of the cycle ;
- Minimum learning competencies for geography education of the cycle;
- Content flow chart of the cycle;
- Grade level learning outcomes of each grade (9 and 10) ;
- The respective grade syllabuses.

Besides, the competencies and content flow chart are organized around five themes – The concept of geography, map reading, physical environment, human & economic aspects, and public and policy related issues. Using these themes, the syllabuses of grade 9 and 10 have been arranged in four units.

Thirty four weeks are assigned in a year to cover the lesson of each grade with two periods per week. The content load is minimized to be balanced with the allotted time.

Profile of Geography students at the end of Secondary School First cycle (9 and 10)

- Students have general knowledge of geography that enable them to understand their natural and social environment
- Students are active participant in
Social and cultural development of their country and Environmental protection
- Students play healthy role in the interaction between human and natural environments
- Students communicate with people using maps
- Students can live with people of diverse background by appreciating multiculturalism and value livelihood diversity
- Students can contribute their part in the effort of sustainable development of their country and the world
- Students utilize their geographical knowledge to connect social & natural phenomenon
- Students can be capable to continue technical training and prepare for further academic carrier using their geographical knowledge as a base.

First Cycle Secondary Education (9 and 10) Learning outcomes for Geography

After students study geography, at the end of first cycle secondary education the expected learning outcomes are that students will be able to:

- Develop a basic understanding of the geologic history of the earth in general and Ethiopia in particular;
- Analyze factors and processes of landform formation
- Comprehend the elements of weather and climate and the mechanisms that create discernible climate pattern in Ethiopia and the world at large.
- Relate major types of natural resources and associated problems and there by develop a set of values and feelings of concern for the resources and the motivation for actively participating in their protection;
- Realize some basic concepts, major theories as well as the impact of population growth on socio-economic development and the environment and measures taken to harmonize them in Ethiopia and the world;
- Appreciate major types of economic activities practiced in Ethiopia and the world at large, factors affecting their distribution as well as their levels of development;
- Acquire basic skills in understanding, reading, using and interpreting maps;
- Know the distribution and types of natural regions of the world and appreciate the unique feature of Ethiopia.

Geography Syllabus
for
Grade 9

First Cycle Secondary Education (9-10) Learning outcomes for Geography

Grade level learning outcomes for grade 9 geography

After completing grade nine geography lesson, the students will be able:

1. To develop understanding and acquire knowledge of:

- The term geography, the development of geography as a discipline and the branches of geography
- Meaning of map, basic uses of map,
- Some of the marginal information given on maps as well as
- Conventional signs and symbols used to represent different features on maps
- The resulting landforms formed by each internal and external forces
- The meaning of weathering, its types and landforms resulted from chemical weathering
- Types and characteristics of agents of erosion and associated landscapes with it.
- The process of deposition and its associated landforms
- The meaning, origin, composition and layer of the earth's atmosphere
- Weather and climate and the concept of temperature
- Formation and types of rainfall as well as types of wind
- The concept of region and regional study
- Major characteristics of tropical zone
- Sub-regions of tropical zone; the characteristics of equatorial rain forest and hot desert regions
- Major characteristics of temperate zone and its sub-regions
- The general characteristics of the Mediterranean and the coniferous regions, and
- The term ecosystem, its components and interdependence
- The concept and facts about human population
- Sources of population data, densely and sparsely populated areas of the world
- Settlement patterns of population
- The five types of economic activities and their major characteristics
- The concept of land use
- The concept of natural resources
- Classification of natural resources as renewable & non-renewable
- Direct and indirect use of natural vegetation
- The economic significance of wild animals
- The importance of soil

2. To develop skills and abilities of:

- Determining the scope of geography
- Categorizing maps based on scale and purpose

- Converting and calculating scale of the map
 - Constructing statistical diagrams
 - Using simple line graph, simple bar graph and pie chart bases on the data provided.
 - Appraising the variation of temperature
 - Demonstrating how to measure and record temperature data
 - Computing and interpreting temperature laps rate and data
 - Practicing measuring and recording of rainfall
 - Demonstrating the temperature zones of the world
- 3. To develop the habits and attitude of :**
- Appreciation to the historical development of map
 - Discrimination of the impact of relief on climate over the influence of latitude in Ethiopia
 - Recognition of the major characteristics of frigid zone, its sub regions, tundra and polar ice caps
 - Identification and demonstration of the interdependence in the ecosystem
 - Appreciation for the varied uses of minerals
 - Realization of the prevalance and impact of HIV/AIDS
 - Accept and participate in the implementation of Ethiopian environment policy
 - Realization of the elements of Ethiopian economic policy for development

Unit One: The concept of geography and map reading (12 Periods)

Unit Out comes: students will be able to:

- Recognize the concept, scope and branches of geography
- Express the meaning, historical development, uses and types of map
- Compute field distance & areas of irregular shaped figures, construct and interpret statistical diagrams.

<i>Competencies</i>	<i>Main Contents</i>	<i>Suggested activities</i>
<p><i>Students will be able to:</i></p> <ul style="list-style-type: none"> • Define the term Geography • Describe the development of geography as a discipline • Determine the scope of geography • Identify the branches of geography • Identify the characteristics that make the subject of geography science • Explain the meaning of map • Appreciate the historical development of map • State the basic uses of map 	<p>1.The concept of geography and map reading</p> <p>1.1 Introduction to the concept of Geography (2 Periods)</p> <ul style="list-style-type: none"> • Meaning of geography • Scope of geography • Branches of geography • What makes geography science <p>1.2 Introduction to the concept of map reading (8 Periods)</p> <ul style="list-style-type: none"> • Meaning of map • Historical development of map <ul style="list-style-type: none"> – Traditional – Modern • Uses of map • Classification of map <ul style="list-style-type: none"> – By function 	<ul style="list-style-type: none"> • Ask the learners what they know about the subject geography and help them to arrive at a correct definition and then determine the scope and branches of geography. • Arrange small group discussion so that students discuss on what makes an academic subject science and equate it to prove that geography is science. Small groups discussion results have to be reported to the whole class in order to arrive at the desired points through whole class discussion. • Review the meaning of map and discuss its historical development. Organize students into small groups to discuss the uses map, its classification as well as marginal information.

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<i>Competencies</i>	<i>Main Contents</i>	<i>Suggested activities</i>
<ul style="list-style-type: none"> • Distinguish the conventional signs and symbols used to represent different features on maps. • Categorize maps based on scale and purpose • Identify some of the marginal information given on maps • Convert linear scale to areal scale • Calculate scale of the map • Calculate the areas of regular and irregular shaped figures by referring to the scale of the map. • Construct statistical diagrams using simple line graph, bar graph and pie chart based on the provided data 	<ul style="list-style-type: none"> – General – Specific – By scale – Large scale map – Medium – Small – Marginal information – Conventional signs and symbols – Scale of map – Grid reference • Magnetic declination • The relationship between linear and areal scales • How to find scale of the map • Measurement of regular and Irregular shaped areas • Statistical diagrams <ul style="list-style-type: none"> – Simple line graph – Simple bar graph – Pie chart 	<ul style="list-style-type: none"> • Let students review the scale of a map in small groups and then practice conversion of linear scales into areal scales • Demonstrate the ways of finding scale of a map and then let students practice how to find the scale of a map. (Using degree values of latitude using ruler measurement) • Provide given data of population, production, climate then organize students to represent the data using simple line graph, simple bar graph and pie chart.

Assessment

Students' performance has to be assessed continuously over the whole unit. The assessment will be made by comparing students' performance with the specified level of competencies. Besides, the teacher has to recognize the level of performance of each student and provide assistance accordingly.

Thus:

A student at a minimum requirement level will be able to define geography; describe the development, determine the scope and identify the branches of geography, explain the meaning, appreciate the historical development, state the basic uses of maps, identify some of the marginal information, distinguish conventional signs and symbols on maps and categorize maps based on scale and purpose; convert linear scale to areal scale; calculate scale of map and areas of regular/irregular shaped areas from a map and construct simple statistical diagrams.

In addition, a student working above the minimum requirement level and considered as higher achiever should be able to evaluate varied definitions of geography, state the fundamental differences of maps that are classified based on scales, design her/his own signs and symbols to convey information on maps, calculate scale of maps based on given degree distance information, and evaluate the relationships and differences of two kinds of information presented on maps using simple statistical diagrams.

Students working below a minimum requirement level will require extra help if they are to catch up with the rest of the class.

Students reaching at the minimum requirement level but achieve a little bit higher should be supported so that they attain the higher achiever competencies. Students who fulfill the higher achievers competencies also need a special support to continue and achieve more.

Unit Two: Physical environment of the world and Ethiopia (34 periods)

Unit Out comes: The students will be able to:

- Analyze the internal and external forces that change the surface of the earth and relate them with the resulting landforms
- Appreciate the origin, composition and the layers of earth’s atmosphere, analyze the association between the elements and controls of climate and interpret climatic data
- Realize the concept of region, distinguish different temperature zones of the earth and describe Ethiopia as a tropical mountainous country
- Assess the concept, components, interdependence and the factors that affect the distribution and features of ecosystem

<i>Competencies</i>	<i>Main Contents</i>	<i>Suggested activities</i>
<p><i>Students will be able to:</i></p> <ul style="list-style-type: none"> • List down the landforms formed by each internal force • Describe the process of each internal force. • Relate some major landforms with their respective internal force. • Explain effects of earth quakes on infrastructure like buildings, dams, roads • Review external forces • State the meaning of weathering • Distinguish the types of weathering • Identify land features resulted from chemical weathering (stalactite, stalagmite, pillar etc.) • Explain the types & characteristics of agents of erosion • Relate types of erosions • State the effects of erosion 	<p>2. Physical environment of the world and Ethiopia</p> <p>2.1 Forces that changes the surface of the earth.</p> <p>2.1.1 Internal forces (4 periods)</p> <ul style="list-style-type: none"> • Folding • Faulting • Volcanism • Earthquake <p>2.1.2 External forces (4 periods)</p> <ul style="list-style-type: none"> • Weathering (definition) • Types(physical and chemical including leaching) • Erosion Agents: wind and water • Types: sheet(rill), gully • Deposition • Agents: wind and water 	<ul style="list-style-type: none"> • Brain storming: Ask students what they remember about internal forces from their grade eight social studies. • Help students to discuss the processes through which folding, faulting, volcanism and earth quake can happen using diagrammatic animated film expression. • Let students discuss about the internal forces in small groups and then demonstrate the internal movement by using different figures and show the resulting lands forms on world map. • Besides, students has to be encouraged to present effects of earth quake and volcanism on infrastructural like buildings (built uproars), dams, roads and etc. using examples. • Assist students to recall what they know about the external forces • Then, let students speak out about what happens to soil when it interacts with water, varied temperature conditions, and plant roots. Facilitate conditions through animated films, diagrams, color pictures or other meanses that enable them explain the meaning of weathering. Students have to classify conditions of weathering as physical and chemical. • Take them to the field to observe the effects of erosion, in their surroundings, so that they can distinguish landforms associated with different agents of erosion. Besides, present a short case studies that show sheet and gully erosions caused by wind & water. Substantiate this presentation with interesting cases until students able to explain landforms created by wind & water deposition.

<i>Competencies</i>	<i>Main Contents</i>	<i>Suggested activities</i>
<p>on human activities with various landscapes</p> <ul style="list-style-type: none"> • Explain the process of deposition • Recognize erosion deposited soils and landforms. • Explain the meaning of atmosphere • Discuss the composition and layers of earth's atmosphere • Explain weather and climate • Express the concept of temperature • Appraise the variation of temperature • Demonstrate how to measure and records temperature data • Compute normal temperature lapse rate • Interpret temperature data • Explain the formation of rain • Discuss the types of rainfall • Relate the varied slopes of roofs of houses (buildings) of various climatic regions with their respective types of rainfall • Explain what cloud is 	<ul style="list-style-type: none"> • Land forms created by wind and water deposition. <p>2.2 Weather and climate</p> <p>2.2.1 Earth & atmosphere (2 periods)</p> <ul style="list-style-type: none"> • Definition of atmosphere • Composition • Structure/layer <p>2.2.2 Meaning of weather and climate (6 periods)</p> <ul style="list-style-type: none"> • Elements <ul style="list-style-type: none"> – Temperature – Rainfall – Winds – Air pressure – Clouds –Types of clouds • Controls <ul style="list-style-type: none"> – Latitude – Altitude – Distance from the sea – Cloud cover – Ocean current – Planetary winds and 	<ul style="list-style-type: none"> • Brainstorm: <ul style="list-style-type: none"> – Let students describe the fate of human life in the absence of air, and explain the importance of atmosphere based on their science/biology lesson. – Help students define atmosphere correctly in small group discussion. Supplement this activity with some kind of fascinating presentation. At the same time, make students identify the layers and composition of atmosphere. • Consider a hypothetical air flight that took place from Addis Ababa in a cloudy day to Mali desert area. Now, let students attempt to express weather and climate in terms of the elements of the above statement. • Arrange a group discussion, so that they can identify the major elements of weather and climate by relating with the effects of climatic controls that cause spatial and temporal variation in the distribution of the elements of weather and climate. • Help students discuss the effects of the varied conditions in the elements of weather and climate on human activities and human made materials • Let students form small groups to discuss and present about slopes of roofs of buildings in a temperate region and compare it with that of our common slopes of roofs. In their discussion they have to consider the type of rain of those areas and recite the probable reason why the slopes of roofs of buildings in the respective areas are made in that way. • Facilitate conditions that enable students measure, record, and compute temperature and rainfall data based on climatic information of a given area. Then identify the differences among local, monsoon, planetary, cyclone and anticyclone winds in relation to its direction and deflection due to earth's rotation. Make a visit to a nearby meteorological station to enrich students ability of practicing measuring and recording weather and climatic data.

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<i>Competencies</i>	<i>Main Contents</i>	<i>Suggested activities</i>
<ul style="list-style-type: none"> • Describe types of cloud • Practice measuring and recordings of rainfall • Differentiate types of winds <ul style="list-style-type: none"> – Local – Monsoon(seasonal) – Planetary winds Including (cyclones and anticyclones) • Relate direction and deflection of winds to earth's rotation • Interpret wind speed and direction from wind gradient map • Explain how conditions of wind affect structure of buildings and crop production. • Identify types of atmospheric pressure • Relate atmospheric pressure with temperature and altitude • Demonstrate the pressure belts of the world • Develop the skills of measuring and recording atmospheric pressure • Analyze the position of the sun at various latitudes at noon time of Dec.22/June 21 • Examine the impact of latitude on temperature • Justify the effect of altitude on the characteristics of 	<ul style="list-style-type: none"> • Measuring and recoding Weather and climate 	<ul style="list-style-type: none"> • Arrange group presentation dealing with the effects of wind on buildings and plantation so that they can describe the various mechanisms of breaking wind power. • Motivate learners to identify types of atmospheric pressure. Then, supply learners with varied information of altitude, and its corresponding temperature and the related atmospheric pressure so that they can relate atmospheric pressure with a given altitude and temperature conditions. • Demonstrate the world pressure belts with their respective wind systems and make students express major pressure belts and winds. <u>N.B</u> Be sure that the designed activities have to be reasonable to realize all specific learning competencies stated in this part. • _Remind learners what they learnt about revolution of the earth in their lower grades to realize that the position of sun in relation to the earth varies seasonally. Then, supply them with globe and let them state the position of sun at various latitudes of the earth at noon time of Dec22/June 21 This needs to express the angle of sun's rays at particular latitude of the earth. Giving examples and exercise with continuous follow up of teacher can enrich the activities

<i>Competencies</i>	<i>Main Contents</i>	<i>Suggested activities</i>
<p>temperature, rainfall and air pressure</p> <ul style="list-style-type: none"> • Compare and contrast the condition of rainfall and temperature between places of coastal and interior areas • Express the meaning and types of ocean current • Identify the impacts of ocean currents • Recognize the effects of ocean currents on temperature & rainfall on land surfaces • Discuss the type & location of pressure belts of the world • State seasonal movements of pressure belts in relation to the apparent movement of the sun • Relate movements of planetary winds with pressure belts • Predict the impact of cloud cover on temperature <ul style="list-style-type: none"> • Analyse the concept of region & regional study • Demonstrate temperature zones of the world 	<ul style="list-style-type: none"> • Cold and warm ocean current • Major pressure belts of the world • The relationship between planetary winds and pressure belts <p>2.3 Natural regions of the earth (14 periods)</p> <ul style="list-style-type: none"> • Concept of region • Temperature zones and 	<ul style="list-style-type: none"> • Now, let students investigate the impact of latitude on temperature; and altitude on temperature, rainfall and air pressure so that they can analyze and explain the effects of latitude and altitude on elements of weather and climate. • Let learners speak what they feel beside river or other water bodies during day and at night it me compared to land area far way strode water body. Then make them compare and contrast the condition of temperature and rainfall of coastal and inferior areas. Learners shout reason out why the differences happen. • Present a world map that shows the direction of cold and warm ocean currents students should be motivated to know what makes an ocean current cold or warm. Then students are facilitated to realize and express the impacts of each type of ocean current on temperature and rainfall characteristics of nearby and surfaces. This has to be strengthened by provides example • Help learners realize major pressure belts of the earth with the help of appropriate map. Then discuss the type and location of pressure belts of the word consider the seasonal monument of pressure sets in reaction to apparent monument of the sun. • Start the lesson by brain storming students mention the characters of planetary winds Then help them to relate the monuments of planetary winds with location of pressure belts. • Motivate students to mention some of the elements they know to characterize a region administratively and mention some natural elements found in some region but absent in the other. Assist students to define a region by extracting relevant information mentioned by them to reach at sounding conclusion.

<i>Competencies</i>	<i>Main Contents</i>	<i>Suggested activities</i>
<ul style="list-style-type: none"> • Discuss the major characteristics of tropical zone(location, climate, natural vegetation, wild animals, soils and human activities • Distinguish the major sub regions of tropical zone • State the general characteristics of the equatorial rainforest and hot deserts • Discriminate the impact of altitude on climate over the influence of latitude • Explain the major relief feature of Ethiopia 	<p>sample regions</p> <p>I. Tropical zone Major characteristic of tropical zone</p> <ul style="list-style-type: none"> – Location – Climate – N. vegetation – Human activities – Sub regions <p>A. The Equatorial rain forest region</p> <ul style="list-style-type: none"> • Location • Climate • Vegetation • Human activities <p>B. Tropical desert</p> <ul style="list-style-type: none"> • Location • Climate • Vegetation • Human activities <p>C. Ethiopia a mountainous tropical country in Eastern Africa.</p> <ul style="list-style-type: none"> • Location of Ethiopia 	<ul style="list-style-type: none"> • Guide students to enable them know that natural regions can also be formulated on the basis of similarities in natural conditions such as climate and natural vegetation and also to some extent similarities in human activities. • Guide students’ discussions by leading students arrive at appropriate concept & definition of region. • Demonstrate temperature zones of the earth based on the Greek’s classification and let students sketch the map in their exercise books to show temperature zones of the earth. The activities should enable students describe the three temperature zones and how this zonal division is made. • Let students discuss on the general characteristics of the tropical zone in small groups and then help them to distinguish the sub-regions of the tropical zone by using the world map. In addition, students are expected to make the sample studies of equatorial rainforest region and hot desert region. Assist students to demonstrate the characteristics of sample regions using world map and if possible using films showing characteristics of the region. • Present case studies of two countries: <ol style="list-style-type: none"> 1. Ethiopia : showing its high altitude position and its vertical climatic zonation(especially temperature distribution), and 2. Central African Republic: showing its altitudinal condition with the county’s temperature distribution. • Then, assist students to distinguish the reason of varied temperature distribution commonly observed in the two countries. In this process, students’ activities have to be geared towards understanding and appreciating the role of Ethiopia’s altitude in

<i>Competencies</i>	<i>Main Contents</i>	<i>Suggested activities</i>
<ul style="list-style-type: none"> • Assess the major characteristics of temperate zone (location, climate, soils & human activities) and sub regions. • Describe general characteristics of Mediterranean region • Explain the general characteristics of coniferous forest region • Recognize, the major characteristics of the Frigid zone (location, climate human activities and sub-regions). 	<ul style="list-style-type: none"> • Relief of Ethiopia II. Temperate zone <ul style="list-style-type: none"> – Location, – Climate – N.vegetation – Human activities – Sub-regions A. Mediterranean Region <ul style="list-style-type: none"> – Location – Climate – Vegetation – Human activities B. Coniferous Forest Region <ul style="list-style-type: none"> – Location – Climate – Vegetation – Human activities III. Frigid zone <ul style="list-style-type: none"> – Location – Climate – N.vegetation – Human activities – Sub region 	<p>modifying the latitudinal influence over temperature. Provide them a map illustrating the location and relief of Ethiopia.</p> <ul style="list-style-type: none"> • Present a world map showing natural regions of the world to students so that learners can locate latitudinal extension of temperate zone and sub-regions of the zone. Then, pause questions as starter to make learners discuss in small groups about the characteristics of temperate zone. Students are expected to express their ideas and convince each other by focusing on Mediterranean and coniferous forest regions. Finally, arrange bridging mechanism to link students’ opinion with the desired proper lesson conclusion. • Let students discuss on the general characteristics of the temperate zone in small groups and then help them to distinguish the sub-regions of the temperate zone by using the world map. In addition, students are expected to make the sample studies of Mediterranean region and coniferous region. Assist students to demonstrate the characteristics of sample regions using world map and if possible using films showing characteristics of the regions. • Present case studies of two countries/areas of the two regions. • Then, assist students to distinguish the reason of varied temperature distribution commonly observed in the two countries/areas. In this process, students’ activities have to be geared towards understanding & appreciating the role of latitude for the variation of temperature. • Present a world map showing natural regions of the world to students so that learners can locate latitudinal extension of Frigid zone and sub-regions of the zone. Then, pause questions as starter to make learners discuss in small groups about the characteristics of Frigid zone. Students are expected to express their ideas and convince each other by focusing on Tundra and Polar Icecaps. Finally, arrange bridging mechanism to link students’ opinion with the desired proper lesson conclusion.

<i>Competencies</i>	<i>Main Contents</i>	<i>Suggested activities</i>
<ul style="list-style-type: none"> • Differentiate the general characteristic of Tundra and polar icecaps • Define the term ecosystem • Identify the component of ecosystem • Demonstrate interdependence in the ecosystem • Identify what development of transport & communication technology has brought changes in location of economic activities. • Discuss how development in transport & communication technology has brought changes in location of economic activity. 	<p>A. Tundra regions</p> <ul style="list-style-type: none"> – Location – Climate – Vegetation – Human activities <p>B. Polar icecaps</p> <ul style="list-style-type: none"> – Location – Climate – Vegetation – Human activities <p>2.4 Ecosystem (2 periods)</p> <ul style="list-style-type: none"> – Components • Biotic • A biotic – Interdependence in the ecosystem <p>2.5 Villagization of the world through distance time Decay (2 periods)</p> <ul style="list-style-type: none"> • Location of economic activities in relation to market in the past & at presents <ul style="list-style-type: none"> – Perishable goods production – Industrial/farming activities – Delivery of services • Location of residence of workers versus offices/factories in the past & at present • Location of industries 	<ul style="list-style-type: none"> • Take Lake Ziway/or Alage area or other place to use as a sample for discussing ecosystem. In this discussion, let students distinguish the components of the sample ecosystem as biotic and a biotic with their interdependence. The interdependence should include the idea of the interrelationship among producers, consumers and decomposers. • Based on the discussion, lead students to arrive at proper definition of ecosystem. Besides, they should identify the components of ecosystem and describe their interdependence. • Start the lesson using students' experience about the topic. Let students discuss, in small groups, and report on the contribution of modern transport and communication technology in connecting distant areas and the World itself. It is wonderful if the report is supplemented with concrete examples. Then help learners to reach at the desired conclusion through whole class discussion

Assessment

Students' performance has to be assessed continuously over the whole unit. The assessment will be made by comparing students' performance with the specified level of competencies. Besides, the teacher has to recognize the level of performance of each student and provide assistance accordingly.

Thus

A student at a minimum requirement level will be able to describe the process of internal forces and list down the resulting landforms and relate them with their respective internal force; state the meaning and distinguish the types of weathering as external force; explain effects of earth quake and erosion on human made structures; identify land features resulted by chemical weathering; explain the types and characteristics of agents of erosion and the concept of deposition; relate and recognize types of erosion with various land scapes/deposited soils; explain and discuss the meaning, origin, composition, and layers of earth's atmosphere; explain weather and climate, express the concept and appraise the variation of temperature; Relate various roof structure of buildings with the type of wind and wind of the respective areas demonstrate how to measure and record temperature; and discuss the type and location of pressure belts of the world.

Besides; they can be able to explain and discuss the formation the condition of each element of weather and climate with the respecting factor/s of weather and climate; explain the major characteristics of selected sub-regions of each temperature zone of the world and examine the factors for characteristics of ecosystem.

In addition, a student working above the minimum requirement level and considered as higher achiever should be able to interpret temperature data and compute normal temperature lapse rate; interpret wind speed and direction from wind gradient map; assess why and how different types of winds formed in varied parts of the world; predict the phenomena caused by the overhead sun at various latitudes by providing concrete examples. Besides, they can be able to relate climatic data with respective altitude and latitude; assess types of clouds and their major characteristics that exist in different altitudes, compare and contrast varied concepts of region and regional studies; determine the type of sub regions of each zone based on the patterns of soil, climatic, vegetation and human activities; and predict what will happen if the ecosystem is affected at various levels.

Unit Three: Human Population and Economic Activities (16 periods)

Unit Out comes: The students will be able to:

- Analyze the concept of human population & the sources of population data
- Indicate the densely moderately & sparsely populated regions of the world
- Distinguish settlement patterns of world population
- Discuss the major economic activities of the world
- Recognize the importance of natural resources

<i>Competencies</i>	<i>Main Contents</i>	<i>Suggested activities</i>
<p><i>Students will be able to:</i></p> <ul style="list-style-type: none"> • Define the concept of human population • Discuss facts about human population • Distinguish sources of population data • Identify the densely and sparsely populated areas of the world • Discuss the settlement patterns of world population • List the five types of economic activities • Explain the major characteristics of economic activities • Examine how economic activities modify & transform resources • Describe concept & meaning of land use 	<p>3. Human population & economic Activities</p> <p>3.1 Concept and facts about human population (3 periods)</p> <ul style="list-style-type: none"> – Sources of population data – Distribution and settlement patterns <p>3.2 Economic activities</p> <p>3.2.1 Classification (6 periods)</p> <ul style="list-style-type: none"> – Primary – Secondary – Tertiary – Quaternary – Quinary <p>3.2.2 Land use (3 periods)</p>	<ul style="list-style-type: none"> • Let students discuss on the concept of population in small groups and help them to distinguish between population data sources and demonstrate the densely and sparsely populated areas of the world by sketching the world map. • Motivate students to say something about the economy activities of different sectors, then give explanation of the primary, secondary, tertiary, quaternary and quinary. • Divide the class in to six gropes. Three of them are assigned to identify the relation slip among the five types of economic activates, while the other three groups different what makes each type of economic activity different from the others. Groups work results have toll be presented to the whole class so that whole class discussion can be made on the basis of the reports through the teacher’s facilitation. • Let the teacher depict students enlarged land use map of Ethiopia. Using the map, students are asked to tell percentage of each land use by simple mere approximation.

<i>Competencies</i>	<i>Main Contents</i>	<i>Suggested activities</i>
<ul style="list-style-type: none"> • Identify land use systems in Ethiopia • Differentiate driving forces that change land use system • Differentiate rural land use from that of urban land use • Define the concept natural resources • Classify natural resources into renewable and non-renewable • State the direct and indirect uses of natural vegetation • Identify Ethiopia's common woods used for construction purposes • Select Ethiopia's woods potentially significant to furniture and other purposes. • Recognize the economic significance of wild animals • Show appreciation of the varied uses of minerals • Express the importance of soil 	<ul style="list-style-type: none"> – Concept and meaning of land use – Land use in Ethiopia – Driving forces in changing land use – Rural land use versus urban land use 3.3 Natural resource 3.3.1 Concept (2 periods) <ul style="list-style-type: none"> – Types(renewable) (non- renewable) 3.3.2 Importance of natural resources (2 periods) <ul style="list-style-type: none"> – Natural vegetation – Wild animals – Minerals – Soil 	<ul style="list-style-type: none"> • Arrange students into smaller groups and discuss among themselves the dynamic forces that change the land over space and time and present to whole class. • Let students discuss and differentiate the land use system in rural and urban settings with the help of their teacher. Students have to be made explain the type and condition of land uses in rural and urban areas so that they can differentiate the differences. • Let students discuss the concept of natural resources and facilitate the discussion and assist in identifying natural resources as renewable and non-renewable. At the end, let them explain the importance of natural vegetation, wild animals minerals and soil. • Arrange small group discussions that focus on the ecological and economic importance of natural vegetation with a particular emphasis to Ethiopian's students should identify economically important Ethiopian's wood like bamboo, Eucalyptus and other indigenous tress, • Similarly, students have pair discussion about the importance of wild animals and minerals for short period of lime. They are supported to identify and understand the economic and other uses of mild animals and minerals. The result of these pair discussion will be enriched through whole class discussion • Let students explain the importance of soil in reaction to agriculture, construction, and ecological balance keeping. This can be realized through various activities like through presentation using practical examples.

Assessment

Students' performance has to be assessed continuously over the whole unit. The assessment will be made by comparing students' performance with the specified level of competencies. Besides, the teacher has to recognize the level of performance of each student and provide assistance accordingly.

Thus

A student at a minimum requirement level will be able to define the concept and discuss facts on human population; distinguish sources of population data; identify settlement patterns of the world and state the reasons for their variation; list the five types of economic activities and explain their major characteristics; and examine how economic activities modify and transform

resource. Moreover, they can define the concept of natural resources, classify natural resources into renewable and non-renewable resources; recognize the economic significance of resources for sustainable development.

A student at a minimum requirement level will be able to defend how and why we better practice the use of natural resources wisely; and interrelate rate of population growth with economic development using the conditions of sample countries.

Unit Four: Public & Policy Related Issues in Ethiopia (6 periods)

Unit Out comes: Students will be able to:

- Realize the prevalence and impacts of HIV/AIDS
- Accept and participate in the implementation of environmental policies in Ethiopia
- Realize the economic policy of Ethiopia

<i>Competencies</i>	<i>Main Contents</i>	<i>Suggested activities</i>
<p><i>Students will be able to:</i></p> <ul style="list-style-type: none"> • Analyze the global prevalence of HIV/AIDS • Explain the prevalence of HIV/AIDS in Ethiopia • Reflect the impact of HIV/AIDS in Ethiopia • Decide to join the school anti HIV/AIDS club to alleviate the prevalence of HIV/AIDS in Ethiopia • Adhere to the implementation of Ethiopia environmental policy • Realize the contribution of economic policy of Ethiopia for development 	<p>4. Public and policy related issues in Ethiopia</p> <p>4.1 HIV/AIDS (2 periods)</p> <p>4.2 Environmental policy (2 periods)</p> <p>4.3 Economic policy (2 periods)</p>	<ul style="list-style-type: none"> • Let students discuss the magnitude and the impact of HIV/AIDS on productive force and try to gather cases of people living with HIV/AIDS/PLWHAI. In addition let them discuss how to mitigate the impact of HIV/AIDS and rouse their interest to take part in Anti HIV/AIDS clubs. • Let students bring the environmental policy of Ethiopia and make a discussion program on the content of the policy. Arrange the class in to different groups and assign different topics for each, then they should present the content of each topics for the class. Finally, try to invite a guest who aware of practitioner of environment and arrange a discussion forum for it. Initiate the class to participate for the implementation of the policy. • Start the lesson by motivating students to identify of newly introduced/recently strengthened economic activities and discuss the importance of these activities to development. In the middle, expose students to the elements of economic policy of Ethiopia by relating these elements to those activities by students. Then, arrange group discussions so that students express and realize the contribution of our economic policy to development.

Assessment

Students' performance has to be assessed continuously over the whole unit. The assessment will be made by comparing students' performance with the specified level of competencies. Besides, the teacher has to recognize the level of performance of each student and provide assistance accordingly.

Thus

A student at a minimum requirement level will be able to analyze the global prevalence and explain the prevalence of HIV/AIDS in Ethiopia and reflect its impact; adhere to the implementation of Ethiopia's environmental

policy; and realize the contribution of economic policy of Ethiopia for development.

In addition, a student working above the minimum requirement level and considered as higher achiever should be able to decide to join the school anti HIV/AIDS club to alleviate the prevalence of HIV/AIDS in Ethiopia; design a strategy to combat the prevalence of HIV/AIDS in the school community; formulate mechanisms to implement the Ethiopian environmental policy at school level; and argue how the economic policy of Ethiopia brings the desired socio-economic changes and development for the country.