የኢትዮጵያፌደራላዊዴሞክራሲያዊሪፐብሊክ

የትምህርትሚኒስቴር

FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA
MINISTRY OF EDUCATION

General Education Curriculum
Geography (Flow Chart, MLC & Syllabus)
9-12

March, 2022
Bishoftu, Ethiopia

Geography Curriculum Materials for Ethiopian Secondary Schools

Grades 9 -12

Developed by:

1. **Aklilu Dalelo (Professor)**
2. **Ermias Debie (PhD)**
3. **Wondafrash Genet (MA)**
4. **Tamiru Abate (MA)**

Reviewed by:

1. **Anne (Cambridge partner)**
2. **Engidawork Assefa (PhD)**

March, 2022
Bishoftu, Ethiopia

1. Introduction

1.1. The Place of Geography as a School Subject

> *“,,, geographical education is indispensable to the development of responsible and active citizens in the present and future world” (IGU, 2016, p.1).*
>
> *“Whether it is through appreciating the beauty of Earth, the immense power of Earth-shaping forces or the often ingenious ways in which people create their living in different environments and circumstances, studying geography helps young people to understand and appreciate how places and landscapes are formed, how people and environments interact, the consequences that arise from our everyday spatial decisions, and Earth’s diverse and interconnected mosaic of cultures and societies” (IGU, 2016, p.3).*
>
> *“It [Geography Education] introduces them [students] not only to key 21st century skills but also to distinctive investigative tools such as maps, fieldwork and the use of powerful digital communication technologies such as Geographic Information Systems (GIS).” (IGU, 2016, p.3).*

Values of Geographic Education

Geography is one of the oldest school subjects the values of which have been well articulated both by geographers and non-geographers. John Dewey, one of the most prominent educators of the 20th century emphatically notes that “Geography and History are the two great school resources for bringing about the enlargement of the significance of a direct personal experience” (Dewey, 1916 republished by Cosmo Classics, 2008:242). Another prominent scholar, a geography educator, takes the argument even further and concludes that no inhabitant of this earth is “truly educated, that is, he has not become an autonomous and responsible citizen until he has acquired a geographical education” (Pinchemel, 1985, p.14). More interestingly non-geographers share a similar view about the values of geographic education. In this regard, Palin, who is not a geographer himself, famously notes that Geography is “one of those richly comprehensive subjects whose relevance is all around us. Where we come from, what we do, what we eat, how we move about and how we shape our

future are all directly the province of the geographer. More than ever we need the geographer's skills and foresight to help us learn about our planet – how we use it and how we abuse it" (Palin, 1991 cited in Kent, 1999, p. 289). On can thus see that Geography education is well positioned to make a significant contribution to the attainment of the aim of the Ethiopian general education curriculum, i.e., producing 'citizens who have the competence essential for life, further learning and the world of work'. It is also important to put due emphasis on the fact that the most distinctive value of geographic education is enabling learners to think geographically.

Thinking geographically: The overarching purpose of geographic education

The overarching purpose of geography education is enabling students to think geographically. Hence the 2009 'manifesto'[1] of the Geographical Association underscores that thinking geographically is the key outcome of geographical learning in school. Thinking geographically is different from everyday thinking in that it includes, following geography's preponderance to keep things whole, relating the local and the global, the near and far, the physical and the human, people and environments, the economic and the social, and time and distance. Here lies the unique contribution of geography to educational philosophy and practice.

Geographers strongly argue that their discipline/school subject views and approaches an issue or problem differently to other disciplines/school subjects, as it considers one or more of the following: relationships between people and the environment; importance of spatial variability (the place-dependence of processes); processes operating at multiple and interlocking geographic scales; and integration of spatial and temporal analysis. This formulation relates closely to what is presented above as thinking

[1]https://www.geography.org.uk/write/MediaUploads/Support%20and%20guidance/GA_GINCConsultation_ThinkingGeographically_NC_2012.pdf

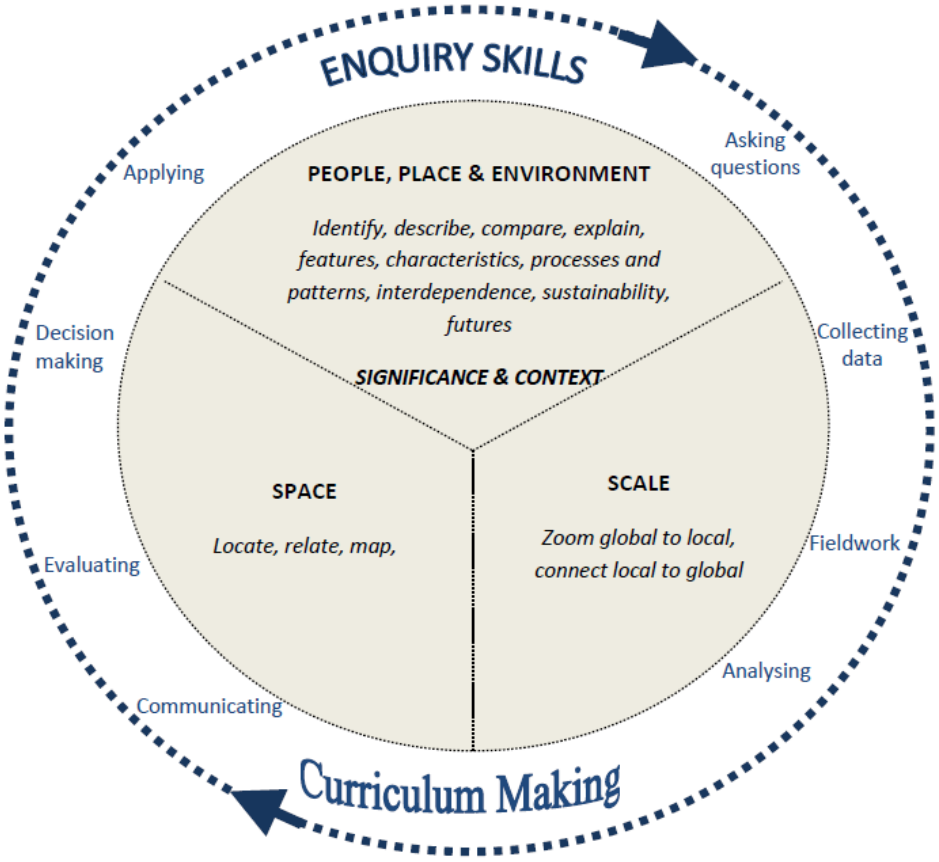
geographically; drawing on knowledge about place, space and environment and encouraging relational thinking (see Figure.1).

Geography and global citizenship

It is widely believed that Geography, both as a discipline and school subject, has a huge potential to contribute towards formation of a favorable attitude toward a global citizenship. Geographers are well placed to develop such an attitude by enabling pupils to learn about geographical patterns and processes and how political, economic, social and environmental factors affect contemporary geographical issues. They also learn how places and environments are interdependent. More importantly, geography has the power to inspire pupils to think about their own place in the world, their values and their rights and responsibilities to other people and the environment.

Since the early years of the 20th century, geography had been regarded to have a great value and essential contribution to citizenship education owing to the possibilities it offers for developing sympathy for the lives and problems of other peoples. This meant, among other things, focusing not only on local geography but also on case studies of carefully selected areas overseas (with a view to bring some places overseas into the home classroom). The notion of true patriotism as a force that starts with the local, spreading out to the regional, the national, and then extending into true ‘world brotherhood’, could be advanced through geographic education given the nature of geography as a discipline that aspires to bring the local and global together.

Figure 1 Thinking Geographically



Source: www.geography.org.uk

Geography also enables students to distinguish contextual knowledge from conceptual knowledge thereby underscoring that both aspects of knowledge are essential and one cannot be complete without the other. Ability to zoom the global down to local; and connect the local to the global is another area of competency where geography displays excellence. In its effort to relate the local with the global, geography uses a few organizing concepts, namely place, space and environment.

The role of organizing concepts

Place, space and environment are now recognized as the main organizing concepts of geography underlying a geographical way of thinking, investigating and understanding the world. They are considered as ideas worth applying across the subject to identify a question, guide an investigation, organize information, suggest an explanation or assist decision-making. They are also used to frame the unique contribution of geography as an academic discipline and school subject.

In geography, such concepts as location, interaction, scale and change are also important. However, place, space and environment are believed to form an enduring structure which arguably encompasses these others as well. One can therefore expect that the three organizing concepts form the pillars of geography curriculum at all levels thereby informing the preparation of curriculum materials and related issues and activities.

A place, from the perspective of geography education, is considered as a specific part of the Earth's surface that has been named and given meaning by people. Places range in size from the home and locality to a major world region. They are interconnected with other places, often in complex ways. Places are unique, but do not have to be studied as if they were singular, for in seeking understanding and explanation geographers' study general processes and look for similarities as well as differences. Space, on the other hand, refers to the three-dimensional surface of the Earth. While historians study changes over time, geographical study emphasizes differences across space. This is of particular interest in understanding the rich diversity of environments, peoples, cultures and economies that exist together on the surface of the Earth. The term environment, as an organizing concept in geographic education, refers to living and non-living surroundings and further classified as natural, managed, or constructed.

Besides the three organizing concepts, the learning and teaching of geography is guided by some key principles.

Principles underpinning the learning and teaching of geography

The learning and teaching of geography is guided by a number of principles including the following, among others:

- focus on spatial variability so as to give a practical and useful perspective on everyday life;
- focus on the unique contexts and circumstances in an interconnected world so as to deepen our understanding of human diversity;
- building a bridge between natural and social sciences thereby encouraging the "holistic" study of diverse issues;
- focus on the patterns and processes that help to understand an ever-changing planet; and
- aspiring to develop an invaluable 21st century skill set for today and tomorrow; and offer unique opportunities to make sense of the modern world.

Key questions asked by geographers

Besides their shared values and principles, geographers across the world are united by the similar questions they ask and the common set of basic concepts they employ to consider their answers. Of either a physical or cultural phenomenon, geographers enquire: What is it? Where is it? How did it come to be what and where it is? Where is it in relation to other physical or cultural realities that affect it or affected by it? How is it part of a functioning whole? How does its location affect people's lives and the content of the area in which it is found? These questions form the core of the enquiry skills which are, in turn, believed to be the main contribution of geography to the development of core skills/21st century skills. As indicated earlier, preparation of geography curriculum materials is guided by the

organizing concepts, key principles and questions underpinning geography education.

1.2. The Curriculum Materials

In Ethiopia, as it is the case in many countries of the world, the teaching and learning of geography is expected to enable students to be equipped with geographic knowledge, understanding, skills, values and attitudes about important questions and issues of natural and human environment, and their interaction and interdependence, diversity and change at local, regional and global scale. Geography education is also expected to develop the competencies for analyzing spatial distribution with an aim of engaging in the community as informed and active citizen. In line with this expectation, the geography curriculum materials (flow chart, minimum learning competencies and syllabus) presented here adopt the following five key themes of geography education for Ethiopian schools: Physical environment; Human environment; Human – natural environment interaction and interdependence; Contemporary geographic issues and public concerns: and Geographic skills and techniques.

The syllabus, in particular, indicates learning and assessment strategies appropriate for Ethiopian schools. It goes without saying that strategies used in geography education are meant to achieve the stated goals and objectives and the key contents identified for effective learning and teaching of geography in Ethiopian schools. Furthermore, they are supposed to strengthen students' understanding, creativity, critical thinking, problem solving and aesthetic values which enable them to draw relationships between past and current phenomena. A maximum effort is therefore made to promote active learning (i.e., learning that is engaging, interactive and problem oriented) through the utilization of both thematic and regional approaches in geography.

Simulations and scenarios in which learners are presented with real or imagined problems to be solved have been made part of the learning and teaching strategies suggested in the syllabus. On the whole, the teaching strategies suggested in the syllabus are hoped to inspire teachers to stimulate curiosity to know, do, be and live together. As strongly recommended in the General Education Curriculum Framework, teachers are supposed to act as facilitators of learning rather than fountains of knowledge and students will have to be considered partners in the process that helps them to continue learning to learn.

Finally, while preparing the Geography Curriculum Materials, an attempt has been made to strike an "optimal balance among knowledge, attitude, and skills on the one hand and theory and practice on the other" as per the requirement of the General Education Curriculum Framework. Details about geography curriculum materials (namely, content flowchart, minimum learning competencies and syllabus) have been presented in the next sections, preceded by leaners' profile.

2. Learners' Profile (Grades 9-12)

By the end of the first two grades of secondary education, namely grades 9 and 10, geography students should exhibit the following profile:

- *Describe their natural and social surroundings/environment.*
- *Articulate the link between poverty and environmental degradation.*
- *Participate in activities related to socio-cultural development as well as environmental protection.*
- *Contribute to activities that enhance a healthy interaction between human and natural environments.*
- *Live together with people of diverse backgrounds thereby appreciating multiculturalism and valuing diversity of livelihoods and lifestyles.*

- *Figure out the interconnection between the social and natural phenomenon by using their geographic knowledge and skills.*
- *Communicate facts, concepts, ideas, etc. using maps.*
- *Pursue a technical training path of their choice or prepare for further academic engagements using their geographical knowledge and skills as a base.*
- *Contribute to efforts aimed at bringing about a sustainable development in Ethiopia and the world at large.*

By the end of the last two grades of secondary education, namely, grades 11 and 12, geography students should exhibit the following profile:

- *Continue their education in various disciplines of human and business sciences using their geographical knowledge and skills.*
- *Conduct basic geographical research that demands data collection, organization, analysis, and evaluation.*
- *Articulate contemporary issues in sustainable development including the multiple faces of poverty and development.*
- *Participate in collaborative engagements aimed at social and economic development.*
- *Respect democratic values, rules and regulations.*
- *Participate in various citizenship activities by recognizing and appreciating cultural aspects (including languages and religions) and livelihood of various places; peaceful world co-existence in respect to territory and resources; and sovereignty of states of the world.*
- *Demonstrate knowledge of and appreciation about the interlink between production, distribution and consumption.*
- *Find solutions to key contemporary issues using enquiry skills.*

3. Content Flowchart (Grades 9-12)

Thematic Areas	Grade 9	Grade 10	Grade 11	Grade 12
	1. **Unit 1: Geological History and Topography of Ethiopia**	**Unit 1: Landforms of Africa**	**Unit 1: Formation of the Earth's Continents**	**Unit 1: Major Geological Processes Associated with Plate Tectonics**
Physical environment	1.1 Geography: Meaning and scope 1.2 Basic land features 1.3 Location, size, and shape of Ethiopia 1.4 Geological history of Ethiopia 1.4.1. Geological processes 1.4.2. Landforms	1.1. Overview of world major landforms 1.2. Location and related features of Africa 1.3. Major landforms of Africa	1.1. Geological time scale 1.2. Formation of the Earth's continents 1.3. Distribution of the Earth's continents and oceans 1.1. Changing position Earth's continent and oceans over geological time	1.1. Continental drift theory 1.2. Plate tectonics theory 1.3. Plate movements and plate boundaries 1.4. Major geological processes

	Unit 2: **Climate of Ethiopia**	**Unit 2**: **Climate of Africa**	**2. Climate Classification and Climate Regions of Our World**	**Unit 2**: **Climate Change**
	2.1 Meaning of weather and climate 2.2 Elements of Climate ✓ Temperature, ✓ Rainfall, ✓ Winds, ✓ Air pressure, ✓ Clouds 2.3 Controls of climate in Ethiopia ✓ Latitude, ✓ Altitude, ✓ Distance from sea, ✓ Ocean current 2.4. Climatic regions and seasonal variations in Ethiopia 2.5. Measurement of climatic elements	2.1. Overview of world climatic regions and types 2.2. Climate types and regions of Africa 2.3. Benefits of climate for the life of people in Africa 2.4. Climate change and its challenges to Africa's development vision	2.1. Criteria for climate classification 2.2. Köppen's climate classification 2.3. Trewartha's climate classification 2.4. World climatic regions 2.5. Factors influencing the world climatic regions 2.6. Local/indigenous climate classification of Ethiopia	2.1. Basic concepts of climate change 2.2. Trends in global climate change 2.3. Natural and human induced climate change 2.4. Consequences of Climate change 2.5. Adaptations and mitigations strategies to climate change 2.6. Pillars of Climate Resilient Green Economy of Ethiopia 2.7. International conventions and agreements on climate change
	1. **Unit 3: Natural Resource Base of Ethiopia**	**Unit 3: Natural Resource Base of Africa**	**Unit 3: Natural Resources and Conflicts Over Resources**	**Unit 3: Issues in Sustainable Development I²: Management of Conflict**

				Over Resources
	3.1. Meaning of natural resources 3.2. Drainage systems of Ethiopia 3.3. Water resources of Ethiopia 3.4. Major soils types of Ethiopia 3.5. Major mineral resources and their distribution in Ethiopia 3.6. Biotic resources of Ethiopia 3.6.1 Major types of natural vegetation 3.6.2 Main kind of wild life of Ethiopia	3.1. Overview of major natural resources of the world 3.2. Major drainage and water resources of Africa 3.3. Main types of soils and mineral resources in Africa 3.4. Major vegetation and wildlife of Africa	3.1. The functions and management of land 3.2. Resources under pressure 3.3. Resource depletion and degradation 3.4. Transboundary rivers 3.5. Regional cooperation for sustainable use of transboundary rivers 3.6. Potential and actual use of water in Ethiopia, Sudan and Egypt 3.7. Conflicts over resources	3.1. Environmental sustainability 3.1.1. Economic viability, 3.1.2. Environmental protection 3.1.3. Social equity 3.2. Sustainable development 3.3. Governance of natural resources 3.4. Resource use policies and related conflicts 3.5. Indigenous conflict resolution practices

[2] Sustainable Development (SD) has been considered as one of the overarching/organizing themes for learning and teaching geography in Ethiopian schools. This is because geography is especially suited to address issues related to SD because of its interdisciplinary and holistic nature (see discussions on the background section).

Thematic area	**Unit 4: Population Characteristics of Ethiopia**	**Unit 4: Population of Africa**	**Unit 4: World Population Trends and Problems**	**Unit 4: Issues in Sustainable Development II: Population Policies, Programs and the Environment**
Human environment	4.1. Concept of human population 4.2. The trends of population growth in Ethiopia 4.3. Population composition 4.4. Population distribution 4.5. Urban and rural settlement patterns 4.6. Health and disease in the highlands and lowlands of Ethiopia 4.7. Impact of population structure on sustainable development in Ethiopia **4.8.** Language and religious diversity in Ethiopia	**5. Population of Africa** 4.1 Overview of World Population Growth and Size 4.1.1. Global Population Trends 4.1.2. Population Size and Growth in Africa 4.2. Africa's Major Demographic Trends 4.3. Population Structure 4.4 Distribution and density of Africa population 4.5 Urban and rural settlement patterns in Africa	4.1. The growth of world population 4.1.1. Population trends in LDCs 4.1.2. Population trends in MDCs 4.2. Factors responsible for accelerated population growth 4.3. International migration 4.4. Population policies	4.1. Theories on population growth and development 4.2. Relationship between population and socio-economic development Relationship between population and environmental health 4.3. Population policies 4.4. Measures taken to curb growth of population
	Unit 5: **Major Economic Activities and Cultural landscape in Ethiopia**	**5. Major Economic and Cultural Activities of Africa**	**Unit 5**: **Geography and Economic Development**	**Unit 5**: **Issues in Sustainable Development III: Challenges of Economic Development**
	5.1. Major economic activities in Ethiopia 5.2. Contribution of subsistence farming and cash crop to the Ethiopian	5.1. Overview of employment structure in the world 5.2. Major economic activities in Africa 5.3 Possible Solutions to the	5.1. Effects of geographic location on development 5.2. Climate extremes and poverty	5.1. Major economic challenges 5.2. Multiple faces of poverty and implication

	economy 5.3 Trade, and transport in Ethiopia 5.4. Road safety in Ethiopia 5.5. Cultural landscapes and tourism in Ethiopia	Problem of Unemployment 5.4 Africa's Agenda 2063 and its implications 5.5. Africa's Agenda 2063 vis-à-vis Sustainable Development Goals (SDGs) 5.6. Linguistic, and religious diversity in Africa	5.3. Disadvantages of landlocked countries 5.4. Intraregional trade in Africa	to development 5.3. The advantages and limitations of globalization 5.4. The growing imbalance between regions and countries 5.5. Corruption 5.6. Global health crises

Thematic area	Unit 6: Human – Natural Environment Interactions in Ethiopia	Unit 6: Human – Natural Environment Interaction in Africa	6. Major Global Environmental Changes	Unit 6: Issues in Sustainable Development IV: Solutions to Environmental and Sustainability Problems
Human – natural environment interaction and interdependences	6.1. Human – environment relationship 6.2. Optimum population and resource use 6.3. Over population and resource use 6.4. Under population and resource use 6.5. Impacts of rapid population growth	6.1. Overview of global population change 6.2.1 Human-environment relationship 6.2.2 Dependence on the environment 6.2. 2 Modification of the environment 6.2.3 Adaptation to the environment 6.3 Indigenous knowledge in conservation of natural resources in Africa	6.1. Persistent environmental problems 6.1.1. Habitat destruction 6.1.2. Agricultural intensification 6.1.3. Overexploitation of resources 6.1.4. Invasive species 6.2. Poverty – environment nexus 6.2.1. Poverty and land degradation 6.2.2. Poverty and deforestation 6.3. Environmental degradation and sustainable development	6.1. Environmental and sustainability education 6.2. Environmental movements **6.3.** Environmentally friendly indigenous practices

Thematic area	Unit 7: Geographic Issues and Public Concerns in Ethiopia	Unit 7: Geographic Issues and Public Concerns in Africa	Unit 7: Geographic Issues and Public Concerns	Unit 7: Global Geographic Issues and Public Concerns
Contemporary geographic issues and public concerns	7.1. Natural resource degradation 7.1.1. Soil 7.1.2. Water 7.1.3. Vegetation 7.2. The Ethiopian "Green Legacy" movement	7.1. Unplanned urbanization 7.1.1 Causes of unplanned urbanization in Africa 7.1.2 Consequences of unplanned urbanization in Africa 7.2. Migration Factors and Impacts on Africa 7.3. Coastal pollution in Africa	7.1. World population dynamics 7.2 Population related concerns of our contemporary world 7.2.1 Family size, education, and income 7.2.2 Rates of population and economic growth 7.2.3 Unemployment and underemployment 7.3 Environmental degradation and desertification 7.4 Recurrent drought and famine 7.5. Worldwide Digital Divide	7.1. Climate change 7.2. Desertification 7.3. Drought and famine

Thematic area	Unit 8: Geographic Enquiry, Skills and Techniques	Unit 8: Geospatial Information and Data Processing	Unit 8: Geo-spatial Information and Data Processing	Unit 8: Geographical Enquiry and Map Making
Geographic enquiry, skills and techniques	8.1. Map and its basic components 8.2. Scale, scale conversion and measurements on maps 8.2.1. Area 8.2.2. Distance 8.3. Position on maps 8.3.1 Grid references 8.3.2 Compass direction 8.4. Map sketching 8.5. Interpreting maps and graphs 8.5.1 Interpreting features of the physical and human landscape 8.5.2 Interpreting graphs, tables and diagrams	8.1 Basic Concepts of Geospatial Information 8.1.1 The Similarity and Difference between Information and Data 8.1.2 Basic concepts of geospatial data 8.2 Sources and tools of geographic data (3 periods) 8.2.1 Sources of geographical data 8.2.2 Tools for geographical data collection 8.3 Geographic Data Representations 8.4. Advances in Mapmaking and the Birth of Geographic Information System 8.4.1 Historical development of map making 8.4.2 Geographical Information System (GIS) 8.4.3 the components of GIS 8.5. Making and Interpretation of Graphs, Charts and Diagrams	8.1. Representations of relief features on topographic maps **8.2.** Basic concepts of GIS **8.3.** Arc map and main tools	8.1. Basics of research method in geography 8.2. Types of geographical research 8.3. Approaches and methods of research 8.4. Gathering and analyzing geographic information 8.5 Map making using geographical information system

4. Minimum Learning Competencies (MLCs)

"Competencies relate to the ability to use learned knowledge, skills and attitudes appropriately in real situations and contexts. They are combinations of knowledge, attitudes and skills which students use to carry out a defined set of tasks. Competencies are not similar to objectives. Rather, they represent abilities to do things" (MOE, 2020, p.57).

"Minimum refers to what is put as standard to be achieved as indicated in the curriculum. It does not relate to the degree of achievement but to the achievement of the whole knowledge, attitudes and skills put as ends to be attained. The expectation is that learners could learn and achieve beyond what is expected. MLCs are developed in such a way that they encompass knowledge, skills and values/attitudes in an integrated manner" (MOE, 2020, p.58).

Thematic Area	Grade 9	Grade 10	Grade 11	Grade 12
	Unit One: Geological History and Topography of Ethiopia	**Unit One: Landforms of Africa**	**Unit One: Formation of the Earth's Continents**	**Unit One: Geological processes and plate tectonics**

Physical environment	▪ Define geography as a subject ▪ Describe the scope and branches of geography ▪ State features that characterise the physical environment ▪ Locate Ethiopia on map of Africa ▪ Compare the size and shape of Ethiopia with that of other countries of Africa ▪ Explain the geological history of Ethiopia ▪ Distinguish the geological processes that gave Ethiopia current form ▪ Distinguish the geological processes that result in the current landform of Ethiopia	• Explain the formations of major landforms of the world • Locate the major landforms of Africa • Explain the spatial variations in the distribution of the major landforms in Africa	▪ Apply the geological timescale for the explanation of the geological processes and associated life-forms ▪ Describe the difference between relative and absolute ages of the Earth's rocks ▪ Examine the Geological Eras of the Earth	• Describe how continental drift theory and plate tectonics are related • Explain how plate tectonic is related to geological processes? • Describe the major geological processes and their importance • Identify the major plate tectonic boundaries • Explain how geological processes and plate boundaries affect human lives

	Unit Two: Climate of Ethiopia	Unit Two: Climate of Africa	Unit Two: Climate Classification and Regions of Our World	Unit Two: Climate Change
	▪ Identify the elements of climate ▪ Explain factors controlling the distribution of climate in Ethiopia ▪ Assess how the seasonal variations in climate affect people's lives in two contrasting regions of Ethiopia	• Identify the major climate types and regions of the world • Identify the major climate types and regions of Africa • Distinguish the controls of climate of Africa • Explain benefits of climate for life of people in Africa • Explain the major challenges of climate change on African development vision	▪ Differentiate between the criteria used to classify climates in different classification schemes ▪ Classify climates of a region based on Köppen's and Trewartha's climate classification method ▪ Evaluate the merits and demerits of Köppen's climate classification ▪ Illustrate the distribution of Köppen's climatic regions in the form of map ▪ Identify the Trewartha's climate classification methods; ▪ Recognize the difference and similarity between Trewartha's and Köppen-Geiger climate classification system. ▪ Describe world climatic regions ▪ Identify the factors responsible for formation of world climatic regions ▪ Describe the local climate types of Ethiopia; and compare the methods used in climate classification locally against that of Köppen.	• Define climate change • Describe the natural and human induced climate change by giving examples • Illustrate the global trends in climate change • Identify the major causes of climate change • Examine the impacts of climate change on human beings and other life forms • Assess the impacts of climate change on the physical features such as water, forest • Propose and sketch the major climate change adaptation and mitigation strategies • Participate in climate change mitigation and adaptation related practices • Assess the the pillars of climate change resilient green economy of Ethiopia through considering indigenous knowledge Review the major international conventions and agreements in view

	Unit Three: Natural Resource Base of Ethiopia	**Unit Three: Natural Resource Base**	**Unit Three: Natural Resources and Conflicts Over Resources**	**Unit 3: Issues in Sustainable Development I:**
	▪ Explain the major drainage systems in Ethiopia; ▪ Describe the distribution of major water resources in Ethiopia; ▪ Explain the characteristics of major soils types in Ethiopia; ▪ Locate the major soil types in Ethiopia; ▪ Describe the spatial distribution minerals in Ethiopia; ▪ Describe the major types of natural vegetation in Ethiopia; and ▪ Explain variations in the distribution of wildlife in Ethiopia.	• Describe the locations of major natural resources (including water, wildlife, oil and gas, gold, iron ore, etc.) in the world'; • Describe the major drainage systems and water resources of Africa; • Demonstrate the major vegetation and wild life distribution zones of Africa; and • Identify the main soils types and mineral resources in Africa	▪ Describe the importance of land as a natural resource ▪ Specify the functions of land ▪ Evaluate the intricate relations between land and people and management strategies for sustainability ▪ Assess the effects of population pressure on land ▪ Explain why renewable or non-renewable resources are under immense pressure ▪ Analise the relationships between resource overuse, environmental degradation, and population growth ▪ Compare annual water uses of Ethiopia, Sudan, and Egypt ▪ Explain how unfair water use could lead to regional conflict	• Define sustainable development • Elaborate the different dimensions of sustainable development in their local context with consideration of indigenous knowledge • Assess progress in achievement status of sustainable development goals globally and in their local context • Explain the principles and characteristics of good governance in the context local indigenous knowledge • Participate in actions aimed at ensuring good governance in their locality • Examine conflict over resources in their localities along with approached to address them, for instance the role of indigenous knowledge • Assess the unique values and limitation of indigenous approaches used to address conflict over resources

Thematic area	Unit Four: Population and Demographic Characteristics of Ethiopia	Unit Four: Population of Africa	Unit Four: World Population Trends and Problems	Unit 4: Issues in Sustainable Development II: Population Policies, Programs and the Environment

Human environment	▪ Describe the trends of population change in Ethiopia; ▪ Explain, referring to population pyramids, how population structure of Ethiopia has changed overtime; ▪ Describe the composition of Ethiopian population; ▪ Identify factors affecting population distribution in Ethiopia; ▪ Identify areas of high and low population density and its impacts on natural resources; • Demonstrate the population distribution and settlement patterns of Ethiopia; ▪ Explain factors influencing the distribution of health and disease in Ethiopia; and ▪ Explain impact of population structure on Ethiopia vision for sustainable development.	• Describe the demographic characteristics of the African population; • Explain why the population of Africa has the structure it has now; and • Discuss the impact of colonialism on the current settlement patterns of Africa.	▪ Demonstrate the trend of world population growth; ▪ Compare and contrast the population growth patterns of LCDs and MDCs; ▪ Identify factors affecting population distribution in Ethiopia; ▪ Assess the effects of uncontrolled population growth; ▪ Explain the socioeconomic factors attributed to population growth; ▪ Explain causes and consequences of international migration; and ▪ Recognize policies on population migration and distribution.	• Describe and explain theories on population growth and development; • Explain the link between population growth and socio-economic development; and • Analyse the effectiveness of population policies in developing countries by taking concrete examples.
	Unit Five: Major Economic and cultural activities in Ethiopia	**Unit Five: Major Economic and cultural Activities of Africa**	**Unit Five: Geography and Economic Development**	**Unit 5: Issues in Sustainable Development III: Challenges of economic development**

	▪ Identify the major economic activities of Ethiopia; ▪ Articulate the contribution of subsistence farming and cash crop production to the economy via transport and manufacturing; ▪ Explain the importance of trade and transport to the economy of Ethiopia; ▪ Describe the cause and consequences of road traffic crashes in Ethiopia; ▪ Explain the performance of road safety in Ethiopia; ▪ Describe and explain the language and religious diversities in Ethiopia; and ▪ Explain why rich cultural heritage of Ethiopia has an important that we know about it and treasure it.	• Describe Africa's Agenda 2063 and its implications; • Compare and contrast the indicators of Agenda 2063 with those of SDGs; • Compare and contrast the major economic activities of Africa with those of other continents; • Identify the cultural landscape of Africa; • Explain why Africa is a home of diverse languages and religions	▪ Describe the effects of geographic location on economic development; ▪ Examine the impacts of extreme climates on poverty; ▪ Evaluate the drawbacks facing landlocked countries for development; and ▪ Review the levels and hurdles of intraregional trade in Africa.	• Explain the causes of poverty and their link to economic development; • Explain the relationship between conflict and poverty; • Describe and explain how globalization affects economic development in developing countries; • Demonstrate why and how trade imbalance occurs between developing and developed countries using concrete examples; • Demonstrate how corruption a affects economic development by taking concrete examples; and • Explain the major crises of global health and their impact on economic

Thematic area	Unit Six: Human – Natural Environment Interactions in Ethiopia	Unit Six: Human – Natural Environment Interaction	Unit Six: Major Global Environmental Changes	Unit 6: Issues in Sustainable Development IV: Solutions to Environmental and Sustainability Problems
Human – Natural Environment Interactions and interdependences	▪ Define the concepts of optimum population, over population, and under population; ▪ Demonstrate scenarios where there is 'overpopulation' and 'under population' using actual or invented cases; ▪ Describe and explain how the growth and decline of population affects the availability of natural resources, and how the availability of natural resources in turn affects the pattern of population growth; ▪ Demonstrate the balance between the population size and the amounts of resources available using concrete examples; and ▪ Assess the impacts of rapid population growth on	• Compare and contrast pattern of population growth in Africa and other continents; • Explain how population density affects the degradation levels of natural resources (vegetation, water and soils) in Africa; • Identify different adaptation strategies to the local environment character; and • Analyze the impacts of rapid population growth on environment and socio-economic conditions of Africa.	▪ Describe the nature and characteristics of persistent environmental changes; ▪ Explain the nature and characteristics of emerging environmental changes; ▪ Examine the intricate relationships between poverty and environment; and ▪ Recognize that sustainable environment is part of a sustainable development.	• Explain components, and magnitude of environmental problems; • Define environmental movement, environmental education, and education for sustainable development; • Describe and explain the types of environmental and sustainability education (formal, non-formal, informal); • Participate in or initiate environmental movement aimed at addressing environmental threats caused by human activities at local or national level; and • Support indigenous practices proven the be effective in mitigating environmental problems
	Unit Seven: Geographic Issues and Public Concerns in Ethiopia	**Unit Seven: Geographic Issues and Public**	**Unit Seven: Geographic Issues and Public Concerns**	**Unit 7: Global Geographic issues and public concerns**
	▪ Explain how natural	• Explain the	▪ Describe the temporal	• Explain why climate

	resource degradation affects people's lives; and ▪ Discuss the solution to problems of resources degradation, including the green legacy movement of Ethiopia.	causes and consequences of unplanned urbanization; • Describe the pattern of internal and international migration in Africa; • Identify the causes of coastal pollutions in Africa; and • Suggest solution to the issue of coastal pollution in Africa.	dynamics of world population; ▪ Examine population-related public concerns of our contemporary world; ▪ Evaluate the relationship between family size and education access in the developing and developed world; ▪ Evaluate the ever-unrestrained problems of unemployment and underemployment; ▪ Describe the mismatch between population growth and the rate of economic growth; ▪ Describe environmental degradation and its role in desertification; ▪ Identify areas frequently affected by drought and famine; ▪ Examine the threats deforestation poses on our world, and ▪ Appreciate the emerging digital divide between different regions of the world	change became a global issue and a serious cause for public concern; • Describe abs explain the causes of and possible link between drought, desertification and famine; • Describe the major human induced and natural causes of desertification; • Explain the consequences of desertification taking a concrete example from East Africa; • Differentiate between the causes and effects of drought and famine, taking two countries as examples; • Participate in activities aimed at mitigation of the impact of desertification, drought and famine in your locality and country at large.

Thematic area	Unit Eight: Geographic Enquiry, Skills and Techniques	Unit Eight: Geospatial Information and Data Processing	Unit Eight: Geospatial information and data processing	Unit 8: Geographical enquiry and Map Making
Geographic enquiry, skills and techniques	▪ Define map and its basic components; ▪ Convert map scales; ▪ Compute area and distances on maps; ▪ Show positions of using grid references, and point compass direction; ▪ Sketching the distribution of major natural resources in a given area; and ▪ Interpreting different physical and human landscapes on maps.	• Acquiring and presenting spatial data using geo-spatial tools; • Describe ways of representing geographic data on maps; • Enlarge and reduce maps using GIS; • Describe and explain how to present geographic information; • Making and interpreting graphs, charts, and diagrams; and • Making administration map using geographical information system.	▪ Depict different relief features on a topographic map; ▪ Explain the basic concepts of geographic information system; ▪ Describe the components of GIS; ▪ Master the basic steps of opening, saving and closing of ArcMap on a computer; ▪ Acquainted with the main tools of ArcMap and available GIS software; ▪ Open, add, and display spatial data on ArcMap,	• Differentiate between qualitative and quantitative methods; • Elaborate the distinctive nature of geographic research; • Gathering data collection using field survey and household survey methods; • Construct statistical diagrams using data from various sources; • Make administrative, topographic, and watershed maps; and • Interpret different type of maps.

4. Syllabus

4.1. Grade 9 Syllabus

Grade Level Learning Outcomes: Grade 9

1. Create an understanding and acquire knowledge of:

- Concept, scope and branches of geography;
- Basic features of the physical environment;
- The concept of a map and its basic components;
- Geological processes and landform of Ethiopia;
- Concepts of weather and climate;
- Elements and controls of climate, and climatic regions;
- Drainage pattern and water resources of Ethiopia;
- Factors responsible for the distribution of the major water resources in Ethiopia;
- Factors responsible for difference in types of natural vegetation in Ethiopia;
- The types of wildlife in Ethiopia and factors that affect their distribution;
- The types of soils in Ethiopia and factors that affect their distribution;
- Spatiotemporal distribution of minerals in Ethiopia;
- Theories, growth, characteristics, structure and distribution, population and settlement patterns in Ethiopia;
- Impacts of rapid population growth on natural environment, socio - economic development and urbanization in Ethiopia;
- Spatial distribution of health and diseases in the highlands and lowlands of Ethiopia;
- The importance of the major economic activities of Ethiopia;
- Trade and transport systems of Ethiopia;
- The diversity of language and religion in Ethiopia;
- Socio-economic development;
- Relationship between human activities and the environment by giving examples from their local environment;
- How protecting the environment is in the interest of humans and other living beings;
- Dynamic flows, interactions and exchanges within an integrated human-environment system at different spatial and temporal scales in the highlands and lowlands of Ethiopia;
- The implications of trend in population growth on sustainable use of natural resources;
- The advantage and disadvantage of under population for environmental and socioeconomic development;
- The impact of rapid population on environmental and socioeconomic development;
- The cause and effects of natural resource degradation; and
- Ethiopia’s vision to achieve development without undermining the potential of the natural environment.

2. **Develop skills and abilities to:**

- show the absolute and relative location of Ethiopia;
- compute the indices of compactness of Ethiopia's shape;
- construct statistical diagrams to represent data on distribution maps;
- make a conversion of map scale;
- measure area and distances using maps;
- demonstrate position on maps and make sketch maps;
- undertake investigate, gather geographic information and analyze the data using appropriate techniques;
- illustrate the distribution of soils types, major water resources, natural vegetation and wild life in Ethiopia;
- show the spatiotemporal variation minerals in Ethiopia;
- demonstrate the population distribution and settlement patterns of Ethiopia;
- demonstrate spatial distribution of health and diseases in the highlands and lowlands of Ethiopia; and
- sort out some of the ways in which humans use natural resources and give examples that illustrate over-exploitation.

3. Develop the habits and attitudes to:

- adhere to the realization of the Ethiopian population policy;
- value the importance of the major economic activities of Ethiopia;
- value the importance of cultural landscapes and heritages of Ethiopia;
- appreciate the diversity of language and religion in Ethiopia;
- adhere the implication of optimum population for sustainable use of local natural resources;
- adhere natural resource management in Ethiopia;
- show interest for the implementation of Ethiopia's vision to achieve development without undermining the potential of the natural environment;
- adhere natural resource conservation and management policy of Ethiopia;
- conform to participate in conservation programs; and
- generalize the present features of Ethiopian socio-economic development.

Unit One: Geological History and Topography of Ethiopia (10 periods)

Learning Outcomes: By the time students complete this unit, they will be able to:

- recognize the concept, scope and branches of geography;
- express the basic land features of the physical environment;
- describe the absolute and relative location of Ethiopia;
- compute the size and shape of Ethiopia;
- explain geologic processes that shaped the land surface of Ethiopia; and
- describe different landforms in Ethiopia.

Competencies	Contents	Learning Strategies	Assessment
▪ Define geography as a subject; ▪ Describe the scope and branches of geography; ▪ State the basic land features that characterise the physical environment; ▪ Locate Ethiopia on map of Africa; ▪ Compare the size and shape of Ethiopia with that of other countries of Africa; ▪ Explain the geological history of Ethiopia; and ▪ Distinguish the geological processes that result in the current landform of Ethiopia.	**1. Geological History and Topography of Ethiopia (**11 **periods)** 1.1 Geography: Meaning, scope and branches (2 periods) 1.2 Basic land features (2 periods) 1.3 Location, size, and shape of Ethiopia (2 periods) 1.4 Geological history of Ethiopia(5 periods) 1.4.1. Geological processes 1.4.2. Landforms	▪ Form groups each consisting of five students to discuss on meaning of geography and the physical environment ▪ Show students either in photography or video a variety of landform for them to identify and describe. ▪ Discuss any local landforms ▪ The teams investigate processes and prepare material to feedback to the class through ordinary talk, poster, power point presentation etc.	• Systematic observation while learners engage in group work, fieldwork and collaborative learning • Provide feedback following class discussions and collaborative learning processes.

Unit Two: Climate of Ethiopia (9 periods)

Learning Outcomes: By the time students complete this unit, they will be able to:

- recognize the meaning and concepts of weather and climate;
- identify elements of climate;
- distinguish elements of climate from its controls;
- compare and contrast the spatial and temporal variations of climate; and
- identify factors affecting climate of Ethiopia.

Competencies	Contents	Learning Strategies	Assessment
▪ Identify the elements of climate; ▪ Explain factors controlling the distribution of climate in Ethiopia; ▪ Assess how the seasonal variations in climate affect people's lives in two contrasting regions of Ethiopia; and ▪ Identify the major measurements of weather and climate.	**2. Climate of Ethiopia (10 periods)** 2.1 Meaning of weather and climate (1 periods) 2.2 Elements of Climate (1 period) ✓ Temperature, ✓ Rainfall, ✓ Winds, ✓ Air pressure, ✓ Clouds 2.3 Controls of climate in Ethiopia (2 periods) ✓ Latitude, ✓ Altitude, ✓ Distance from sea, ✓ Ocean current 2.6. Climatic regions and seasonal variations in Ethiopia (3 periods) 2.7. Measurement of climatic elements(3 periods)	▪ Form teams each consisting of 5 students to discuss on the following issues: ✓ Elements and controls of climate ✓ How does climate affect the lives of people in Ethiopia? ▪ Divide learners into **groups** and let them analyze the climatic regions of Ethiopia on a map, and ask students to present their work to the class for comments and discussions ▪ **Case studies:** ✓ Choose one region and work up a case study to show the effects of climate on peoples' lives there ✓ Students could consider their own region but some could move on to a case study of contrasting regions ✓ Field work Assign students to observe the measurements site of weather and climate, and write a report on how climate data are generated using different instruments	▪ Investigating students' participation to allow them to find out the process as they engage in the group/team activities ▪ Review and provide feedback on the performance of each group/team/student at the end of each class ▪ Record students' performance and provide detailed feedback at the end of the unit.

Unit Three: Natural Resource Base of Ethiopia (10 periods)

Learning Outcomes: By the time students complete this unit, they will be able to:

- elaborate major drainage systems of Ethiopia;
- explain the distribution of the major water resources in Ethiopia;
- state soils types and distribution in Ethiopia;
- explain the factors responsible for difference in types of natural vegetation in Ethiopia;
- describe the types of wildlife in Ethiopia and factors that affect their distribution; and
- describe the spatial distribution and variation minerals in Ethiopia.

Competencies	Contents	Learning Strategies	Assessment
▪ Explain the major drainage systems in Ethiopia; ▪ Describe the distribution of major water resources in Ethiopia; ▪ Explain the characteristics of major soils types in Ethiopia; ▪ Locate the major soil types in Ethiopia; ▪ Describe the spatial distribution minerals in Ethiopia; ▪ Describe the major types of natural	**3. Natural Resource Base of Ethiopia (10 periods)** 3.1. Meaning of natural resources (1 periods) 3.2. Drainage systems of Ethiopia(2 periods) 3.3. Water resources of Ethiopia(1 periods) 3.4. Major soils types of Ethiopia(2 periods) 3.5. Major mineral resources and their distribution in Ethiopia(2 periods) 3.6. Biotic resources of	▪ Ask students to find out about the three main drainage systems in Ethiopia and label them and their principal rivers on a map ▪ Organize the students into teams to carry out **collaborative learning** that more focused on relevant enquiry questions to investigate, such as: ✓ What are 'water resources? ✓ How is water used in Ethiopia? ✓ Where is water resources found in Ethiopia? ✓ Why water resources are not evenly spread across the country? ▪ **Discuss'** the characteristics of major soils of Ethiopia in a buzz group without having some directed input ▪ Activities could be done individually or in pairs or threes. ✓ A matching exercise with statements about the soils to match up, with the names of the soil type on the one hand and their locations and characteristics on the other, but not in the right places. ✓ Students could study a simplified outline map with the broad regions of soil types marked but identified with numbers only. With the learning above, students then decide which area is which and complete the key. ▪ **Case study**: organize student in a team work to carry out simple tests that can be done outside or even in the classroom. For instance, soil texture identification, and if it is feasible to dig a small soil pit then the profile of the soil could be observed. ▪ Ask students to show the spatial pattern of minerals distribution in Ethiopia using a **thematic map**.	▪ Systematic observation of groups/teams as they conduct group work/discussions ▪ Ask teams/students to present what they have discussed ▪ Provide feedback on class discussion and collaborative learning process at the end of the class ▪ Record the

vegetation in Ethiopia; and ▪ Explain variations in the distribution of wildlife in Ethiopia.	Ethiopia(2 periods) 3.6.1 Major types of natural vegetation 3.6.2 Main kind of wild life of Ethiopia	▪ Ask students to discuss on the distribution of major types of natural vegetation in Ethiopia, and present spatial distribution in Ethiopia using a **thematic map** ▪ **Homework for some specific enquiry question examples**: Why are so many of Ethiopia's elephants now found in certain national parks, and not more widely distributed? And why do so many Gelada Baboons live in the Simien Mountains?	performanc e and provide feedback at the end of the Unit.

Unit Four: Population Characteristics of Ethiopia (11 periods)
Learning Outcomes: By the time students complete this unit, they will be able to:

- recognize the pattern of population growth in Ethiopia;
- examine population structure and trends in Ethiopia;
- explain the population characteristics of Ethiopia;
- demonstrate the population distribution and settlement patterns of Ethiopia;
- identify factors influencing spatial distribution of health and diseases in lowland and highland of Ethiopia; and
- analyze the influence of population pressure on resources in Ethiopia.

Competencies	Contents	Learning Strategies	Assessment
▪ Describe the patterns of population growth in Ethiopia; ▪ Describe population pyramid of Ethiopia; ▪ Describe the composition of the Ethiopian population; ▪ Identify factors affecting population distribution in Ethiopia; ▪ Identify areas of high and low population density and its impacts on natural resources; • Demonstrate the urban and rural settlement patterns of Ethiopia; ▪ Explain factors influencing the distribution of health and disease in Ethiopia; and ▪ Explain impact of population structure on Ethiopia vision for sustainable development.	**4. Population Characteristics of Ethiopia (11 periods)** 5.1. Concept of human population(1 period) 5.2. The trends of population growth in Ethiopia (1 period) 5.3. Population composition (1 period) 5.4. Population distribution (1 period) 5.5. Urban and rural settlement patterns (2 periods) 5.6. Health and disease in the highlands and lowlands of Ethiopia (1 period) 5.7. Impact of population structure on sustainable development in Ethiopia (2 periods) 5.8. Language and religious diversity in Ethiopia (1 period)	▪ Organize students into smaller groups/teams to undertake a collaborative learning on how population pyramids, and population structure of Ethiopia has changed overtime ▪ Ask students to make brief presentations on composition of the Ethiopia population ▪ Form buzz groups to discuss on factors affecting population distribution in Ethiopia ▪ Ask students to explain the effect of population on natural resources ▪ Assign students to show the pattern of population distribution using a thematic map ▪ Divide learners into groups and let them describe and explain the nature of health and diseases in areas where they come from ▪ Organize students to **debate** on Ethiopia can find ways to control population and so help achieve sustainable development	▪ Systematic observation of groups/teams as they conduct group work/discussions ▪ Ask students to present to the class what they discussed ▪ Monitor the debate for development of core competencies of communication and collaboration, leadership and decision making, creative thinking and problem solving ▪ Provide feedback and

			conclusions booth at the end of the class and unit

Unit Five: Major Economic and cultural activities in Ethiopia (10 periods)

Learning Outcomes: By the time students complete this unit, they will be able to:

- recognize and value the importance of the major economic activities of Ethiopia;
- examine the trade and transport systems of Ethiopia;
- describe and explain the diversity of language and religion in Ethiopia; and
- appreciate cultural landscapes and their contribution to tourism industry in Ethiopia.

Competencies	Contents	Learning Strategies	Assessment
▪ Identify the major economic activities of Ethiopia; ▪ Articulate the contribution of subsistence farming and cash crop production to the Ethiopia economy; ▪ Explain the importance of trade and transport to the economy of Ethiopia; ▪ Describe the cause and consequences of road traffic crashes in Ethiopia; ▪ Explain the performance of road safety in Ethiopia; ▪ Describe and explain the language and religious diversities in Ethiopia; and ▪ Explain how a rich	**5. Major Economic Activities and Cultural landscape in Ethiopia (10 periods)** 5.1. Major economic activities in Ethiopia (2 periods) 5.2. Contribution of subsistence farming and cash crop to the Ethiopian economy (2 periods) 5.3 Trade, and transport in Ethiopia (2 periods) 5.4. Road safety in Ethiopia (2 periods) 5.5. Cultural landscapes and tourism in Ethiopia (2 periods)	▪ Form small groups to draw a pie graph for the major economic activities in the whole country and pose some questions for discussion on: ✓ How do the jobs in your own area fit within the Primary / Secondary / Tertiary groups? ✓ How typical is your area of economic activities in Ethiopia as a whole? ✓ What kind of jobs **not** found in your area are found in other parts of the country? ✓ Why is this? ▪ Ask students to discuss about different kinds of farming and farm products, and the importance of subsistence farming and cash crop to the Ethiopian economy? ▪ Divide learners into groups/teams and let them discuss on the interdependence between trade and transport ▪ **Project**: Assign students into pairs to write a small report on “Road Accidents in Ethiopia: Causes**,** Consequences and Possible Remedies ▪ Ask groups to make presentation of distribution of language and religion in Ethiopia using a thematic map ▪ Form **groups** each consisting of 5 students: ✓ ask them to identify common cultural landscapes, and ✓ discuss on their importance to tourism industry development in Ethiopia	▪ Systematic observation of groups/teams as they conduct group work/discussions ▪ Ask students to evaluate (peer evaluation) each other’s e presentation on list of economic activities they identified ▪ Provide feedback and conclusions at the end of each class ▪ Record the performance and provide feedback at the end of the

cultural heritage is important for tourism industry in the country.			unit.

Unit Six: Human–Natural Environment Interactions in Ethiopia (10 periods)

Learning Outcomes: By the time students complete this unit, they will be able to:

- describe the relationship between human activities and the environment by giving examples from their localities;
- describe the link between 'optimal' population and sustainable development;
- explain how protecting the environment is in the interest of humans and other living beings;
- examine the dynamic flows, interactions and exchanges within an integrated human-environment system at different spatial and temporal scales in the highlands and lowlands of Ethiopia;
- recognize the implications of trend in population growth on sustainable use of natural resources;
- assess some of the ways in which humans use natural resources and give examples that illustrate over-exploitation in the over-populated area of Ethiopia;
- explain the advantages and disadvantages of under population for environmental and socioeconomic development; and
- assess the impacts of rapid population on environmental and socioeconomic development.

Competencies	Contents	Learning Strategies	Assessment
▪ Define the concepts of optimum population, over population, and under population; ▪ Demonstrate scenarios where there is 'overpopulation' and 'under population' using actual or invented cases; ▪ Explain how the growth and decline of population affects the availability of natural resources, and how the availability of natural resources in turn affects the pattern of population growth; ▪ Demonstrate the balance between the population size and the amounts of resources available using	**6. Human – Natural Environment Interactions in Ethiopia (10 periods)** 6.1. Human – environment relationship (3 periods) 6.2. Optimum population and resource use (1 period) 6.3. Over population and resource use (1 period) 6.4. Under population and resource use (1	▪ Ask the students' understanding of termsoptimal population, overpopulation and under population ▪ Ask students to discuss on importance of optimal population on local resources development ▪ Divide learners into groups and let them justify the link between 'optimal' population and sustainable development ▪ Organize the students into teams to undertake a collaborative learning how does the availability of natural resources vary in Ethiopia? Why does it vary? What is the impact of population density on availability of natural resources? Can you state the general relationship between the greater the population density and the availability of natural resources in the area?	▪ Observe activities while learners engage in group activities/teamwork, field trips and collaborative learning ▪ Ask students to present results of their survey and discussions ▪ Provide feedback on class discussion and collaborative learning at the end of each class

concrete examples; and ▪ Assess the impacts of rapid population growth on environment and socioeconomic development using concrete examples.	period) 6.5. Impacts of rapid population growth (4 periods)	▪ Case study: assign students to demonstrate the impact of local population density on available forest resources ▪ Debate**:** Divide the class into two and hold a debate on "Population growth has more disadvantages than advantages for a country like Ethiopia."	▪ Record the performance of each group and provide feedback at the end of the unit.

Unit Seven: Contemporary Geographic Issues and Public Concerns in Ethiopia (4 periods)

Learning Outcomes: By the time students complete this unit, they will be able to:

- explain the effects of natural resource degradation; and
- elaborate Ethiopia's vision to achieve development without undermining the potential of the natural environment.

Competencies	Contents	Learning Strategies	Assessment
▪ Explain how natural resource degradation affects people's lives; and ▪ Discuss the solution to problems of resources degradation, including the green legacy movement of Ethiopia.	**7. Geographic Issues and Public Concerns in Ethiopia (4 periods)** 7.1. Natural resource degradation (3 periods) 7.1.1. Soil 7.1.2. Water 7.1.3. Vegetation 7.2. The Ethiopian "Green Legacy" movement(1 periods)	▪ Prior learning on short refresher question and answer session on the resource-population link, especially on overpopulation, ▪ Organize students into **groups**/teams and debate on the link between poverty and Natural resource degradation ▪ **Group work on**: What is natural resource degradation? Where is there evidence of this? How does it happen? What problems arise from it? In what ways are people's lives affected? etc. ▪ **Project on green shoots of recovery**? What has been happening in Ethiopia to tackle natural resource degradation?	▪ Monitor the debates ▪ Ask students to read to class findings of their project ▪ Provide feedback and conclusions at the end of the class

Unit Eight: Geographic Enquiry, Skills and Techniques (13 periods)

Learning Outcomes: By the time students complete this unit, they will be able to:

- recognize the concept of a map and its basic components;
- categorize scales and interpret maps at different scales;
- make measurements of area and distances using maps;
- demonstrate position on maps and make sketch maps; and
- undertake investigate, gather geographic information and analyze the data using appropriate techniques.

Competencies	Contents	Learning Strategies	Assessment
▪ Define map and describe its basic components; ▪ Convert map scales; ▪ Compute area and distances on maps; ▪ Show positions of using grid references , and point compass direction; ▪ Sketch the distribution of major natural resources in a given area; and ▪ Interpret different physical and human landscapes on maps.	**Unit 8: Geographic Enquiry, Skills and Techniques (13 periods)** 8.1. Map and its basic components (2 periods) 8.2. Scale, scale conversion and measurements on maps (4 periods) 8.2.1. Area 8.2.2. Distance 8.3. Position on maps (3 periods) 8.3.1 Grid references 8.3.2 Compass direction 8.4. Map sketching (1 period) 8.5. Interpreting maps and graphs (3 periods) 8.5.1 Interpreting features of the physical and human landscape 8.5.2 Interpreting graphs, tables and diagrams	▪Give practical exercises on map interpretation including measuring distances, identifying compass directions between places or features, estimating area etc. ▪Ask students to sketch map of their school compound ▪ Assign groups to sketch and interpret geographic information using line, graphs, pie chart ▪ **Project**: Sketch, locate, and interpret Ethiopia in major economic activities and population density	▪ Short written exercises to be completed and assessed ▪ Systematic observation of groups/teams as they conduct group work/discussions ▪ Provide feedback at the end of each class ▪ Record interactions and performance and provide feedback at the end of the unit

4.2. Grade 10 Syllabus

Grade Level Learning Outcomes: Grade 10

1. Create understanding and acquire knowledge of:

- major landforms and their spatial distribution in Africa;
- geological processes that gave Africa its present landform;
- major climate types and regions of the African continent;
- the climatic regions and climate types of Africa;
- the drainage systems and water resources, soils, natural vegetation, wild life, and mineral resources of the African continent;
- the population characteristics of the African continent;
- major economic activities and cultural landscape in Africa;
- the human – natural environment interaction in Africa;
- the impacts of rapid population growth on environmental and socioeconomic conditions of the African continent; and
- the current geographic issues and public concerns in Africa.

2. Develop skills and abilities to:

- illustrate the distribution of soils types, major water resources, natural vegetation and wild life in Africa;
- make a diagram to illustrate the demographic structure of the population of Africa;
- outline the indicators of Agenda 2063 with those of Sustainable Development Goals (SDGs);
- analyze the effects of misguided urbanization and coastal pollution on African population;
- illustrate the ways of presenting geographic information;
- present spatial data using geographic information technology;
- undertake map enlargement and reduction; and
- produce geographic maps, graphs and diagrams.

3. Develop the habits and attitudes to:

- explain the opportunities and challenges posed by climate change on development in Africa;
- justify the effects of colonial powers on distribution and settlement of African population;
- appreciate the cultural landscape of Africa;
- justify the pillars of Africa's Agenda 2063 and their implication for socio-economic transformation of the continent; and
- explain the impacts of rapid population growth on environmental and socioeconomic conditions of the African continent.

Unit One: Landforms of Africa' (5 periods)

Learning Outcomes: By the time students complete this unit, they will be able to:

- develop general idea on the major landforms of the world;
- identify the major landforms and their spatial distribution in Africa;
- describe the major landform features of Africa; and
- recognize the spatial variations in the distribution of the major landforms in Africa.

Competencies	Contents	Learning Strategies	Assessment
• Locate the major landforms in Africa; and • Explain the spatial variations in the distribution of the major landforms in Africa.	**1. Landforms of Africa (5 periods)** 1.1. Overview of world major landforms **(2 periods)** 1.2. Location and related features of Africa **(1period)** 1.3. Major landforms of Africa **(2 periods)**	• Assign students in group to draw a map of Africa and locate and indicate the major landforms • Form another group consisting of 5 students and ask them to establish relationships between geological processes and landforms and present their work. Let the teacher provide a summary.	• Observe them as they draw, locate and present; and record their presentation taking photographs using your phone. Show them the record. • Give students time to question each other on the content and quality of their work. Record their participation. • Provide feedback for each question and discuss on the feedback at the end of each class. .

Unit Two: Climate of Africa (9 periods)

Learning Outcomes: By the time students complete this unit, they will be able to:

- assess the climatic regions and climate types of the world;
- compare climatic regions within Africa;
- examine how climate provide substantial benefits for the life of people in Africa; and
- analyze the challenges posed by climate change on development in Africa.

Competencies	Contents	Learning Strategies	Assessment
• Identify the climate types and regions of the world; • Describe the major climate types and regions of Africa; • Explain the implications of climate for people of Africa; and • Explain the major challenges of climate change on African development vision.	**2. Climate of Africa (9 periods)** 2.1. Overview of world climatic regions and types (2 periods) 2.2. Climate types and regions of Africa(3 periods) 2.3. Benefits of climate for the life of people in Africa (2 periods) 2.4. Climate change and its challenges to Africa's development vision (2 periods)	• Organize the students into teams to undertake a collaborative learning on overview of world climate region, and climate types and region of Africa • Provide two or three climate charts with contrasting characteristics and the students have to identify the climate from the chart • Form groups consisting of 5 students discuss on benefits brought by climate in Africa while the remaining on challenges posed • Assign four students, three from benefits and another three from challenges to debate on the issue.	• Observe the groups as they discuss on the assigned issue. • Record the discussions and provide feedback based on your assessment of their performance. • Prepare questions in advance and ask the class to respond. • Record students' performance on every aspect of the unit and provide overall feedback at the end of the Unit.

Unit Three: Natural Resource Base of Africa (12 periods)

Learning Outcomes: By the time students complete this unit, they will be able to:

- identify key natural resources of the world;
- assess the main vegetation and wild life of Africa;
- identify the major soils types and mineral resources of the African continent; and
- describe the main drainage system and water resources of Africa.

Competencies	Contents	Learning Strategies	Assessment
• Describe the locations of major natural resources, including water, wildlife, and mineral resources in the world; • Describe the major drainage systems and water resources of Africa; • Demonstrate the major vegetation and wild life distribution zones of Africa; and • Identify the main soils types and mineral resources in Africa.	**3.Natural Resource Base of Africa (12 periods)** 3.1 Overview of major natural resources of the world (3 periods) 3.2 Major drainage and water resources of Africa (3 periods) 3.3 Main types of soils and mineral resources in Africa (3 periods) 3.4 Major vegetation and wildlife of Africa (3 periods)	• Start the lesson by forming group of 5 students and show a map of drainage and natural vegetation and then ask each group to name the main lakes and drainage systems in Africa. • Observing major soils types and mineral resources map in Africa • Show how natural vegetation and human influence wildlife distribution and density by giving two or three examples of a particular species. • Then, give them a short summary of the resource base of the African continent.	• Observe students' performance and provide feedback, encourage all efforts on the part of the students. • Use map interpretation to help examine the drainage and water resources of Africa. • Record students' performance in the various aspects of the Unit and give them a comprehensive feedback at the end of the Unit.

Unit Four: Population of Africa (12 periods)

Learning Outcomes: By the time students complete this unit, they will be able to:

- analyze the demographic structure of the population of Africa;
- examine the population characteristics of the African continent; and
- describe the population distribution and settlement patterns in Africa.

Competencies	Contents	Learning Strategies	Assessment
• Describe the demographic characteristics of the African population; • Describe the structure of population of Africa; • Demonstrate distribution patterns of African population using graphs, pie charts, line and map; and • Discuss the impact of colonialism on the current settlement patterns of Africa.	**4. Population of Africa(12 periods)** 4.1 Overview of World Population Growth and Size **(3 periods)** 4.1.1. Global Population Trends 4.1.2. Population Size and Growth in Africa 4.2. Africa's Major Demographic Trends **(3 period)** 4.3. Population Structure **(2 periods)** 4.4. Distribution and density of Africa population **(2 periods)** 4.5. Urban and rural settlement patterns in Africa **(2 periods)**	• Form groups each consisting of five students and let discuss on the effect of the population characteristics on settlement; and let the groups present their summary to the class and the conduct a class wide discussion. • Ask the students to discuss on distribution patterns of African population and present using graphs, pie charts, line and map • Develop a case study: the location of the main cities and the main mining areas and main farming areas of a given country in relation to the settlement pattern that reflects the colonial past (South Africa and Nigeria) • Provide a quick summary at the end of each class. • Prepare key questions in advance and ask the class	• Conduct a systematic observation as the class makes discussions and presentations. • Record interaction and performance of each group. • Give time for groups to ask each other. • Record students' performance in the various aspects of the Unit and give them a comprehensive feedback at the end of the Unit.

Unit Five: Major Economic Activities and cultural landscapes of Africa (12 periods)

Learning Outcomes: By the time students complete this unit, they will be able to:

- identify the major economic activities in Africa;
- identify the major cultural landscapes in Africa;
- describelinguistic and religious diversity of Africa;
- assess the pillars of Africa's Agenda 2063 and their implication for socio-economic transformation of the Continent; and
- compare and contrast the indicators of Agenda 2063 with those of Sustainable Development Goals (SDGs).

Competencies	Contents	Learning Strategies	Assessment
• Describe Africa's Agenda 2063 and its implications; • Compare and contrast the indicators of Agenda 2063 with those of Sustainable Development Goals (SDGs); • Compare and contrast the major economic activities of Africa with those of other continents; and • Identify the major cultural landscapes, and linguistic and religious diversity of Africa.	**5. Major Economic Activities and Culture of Africa (12 periods)** 5.1. Overview of employment structure in the world (1 period) 5.2. Major economic activities in Africa (2 periods) 5.3 Possible Solutions to the Problem of Unemployment (2 periods) 5.4 Africa's Agenda 2063 and its implications (2 periods) 5.6. Africa's Agenda 2063 vis-à-vis Sustainable Development Goals (SDGs) (3 periods) 5.6. Linguistic, and religious diversity in Africa (2 periods)	• Organize the students into teams to undertake a collaborative learning on overview of employment structure worldwide, and major economic activities in Africa • Assign the students could focus on one of the seven 'aspirations Africa's Agenda 2063 and write the one-page report • Ask the students on what do people need to do for Agenda 2063 to be successful? How can people benefit? • Conduct a group discussion on what are the important elements of the African cultural landscape, and why Africa is a home of diverse languages and religions **Project:** After debating on Africa Agenda 2063, recommend possible solutions for unemployment rate in the continent	• Conduct a systematic observation as the class makes discussions and presentations. • Record interaction and performance of the students during group discussion • Record students' performance in the various aspects of the Unit and give them a comprehensive feedback at the end of the Unit.

Unit Six: Human – Natural Environment Interaction (8 periods)

Learning Outcomes: By the time students complete this unit, they will be able to:

- analyze the dependence nature of human being on environment;
- explain how human can modify natural environment;
- identify the adaptation strategies of environmental changes; and
- assess the impacts of rapid population growth on environmental and socioeconomic conditions of the African continent.

Competencies	Contents	Learning Strategies	Assessment
• Compare and contrast pattern of population growth in Africa and other continents; • Explain how population density affects the degradation levels of natural resources (including vegetation, water and soils) in Africa; • Identify different adaptation strategies to the local environment character; and • Analyze the impacts of rapid population growth on environment and socio-economic conditions of Africa.	**6. Human – natural environment interaction (8 periods)** 6.1. Overview of global population change (2 period) 6.2. Human-environment relationship (4 periods) 6.2.1. Dependence on the environment 6.3. 2 Modification of the environment 6.2.3 Adaptation to the environment 6.3 Indigenous knowledge in conservation of natural resources in Africa (2 period)	• Ask students to compare and contrast' the pattern of population growth (rather than of population distribution) in Africa and other continents. • Organize the students into teams to undertake a collaborative learning on dependence on the environment, modification of the environment, and adaptation to the environment • Conduct a debate on the potential and actual impact of population size in Africa.	• Conduct a systematic observation as the class makes discussions and presentations. • Record interaction and performance of the students during debates and discussions • Record students' performance in the various aspects of the Unit and give them a comprehensive feedback at the end of the Unit.

Unit Seven: Geographic Issues and Public Concerns in Africa (5 periods)
Learning Outcomes: By the time students complete this unit, they will be able to:

- explain the cause and consequences of unplanned urbanization in Africa;
- analyze the factors and impact of migration in African; and
- describe cause and effects of coastal pollution on African population.

Competencies	Contents	Learning Strategies	Assessment
• Explain the causes and consequences of unplanned urbanization; • Describe the pattern of internal and international migration in Africa; • Identify the causes of coastal pollutions in Africa; and • Suggest solution to the issue of coastal pollution in Africa.	**7. Geographic Issues and Public Concerns in Africa (5 periods)** 7.1. Unplanned urbanization(2 periods) 7.1.1 Causes of unplanned urbanization in Africa 7.1.2 Consequences of unplanned urbanization in Africa 7.2. Migration Factors and Impacts on Africa (2 period) 7.3. Coastal pollution in Africa (1 period)	• Conduct brainstorming session to gather a range of ideas on causes and consequences of urbanization. Students in groups then develop spider diagrams to illustrate the variety of contributing factors and to show links between factors. • students could concentrate on one problem e.g., waste disposal and investigate it in detail, along with any solutions **Project**: 1. What are the major pushing and pulling factors? 2. What are the major consequences of urbanization • Debate on balance between preservation and use of coastal areas in Africa • Ask students to demonstrate how coastal areas could be used for sustainable development using thematic maps. potential for Africa	• Conduct a systematic observation as the class makes discussions and reflections. • Record interaction and performance of the students during debates and discussions • Record students' performance in the various aspects of the Unit and give them a comprehensive feedback at the end of the Unit.

Unit Eight: Geospatial Information and Data Processing (15 periods)

Learning Outcomes: By the time students complete this unit, they will be able to:

- recognize ways of presenting geographic information;
- represent spatial data using global position system technology;
- develop skills of map enlargement and reduction; and
- produce geographic maps, graphs and diagrams.

Competencies	Contents	Learning Strategies	Assessment
• Present spatial data using geo-spatial tools; • Describe ways of representing geographic data on maps; • Enlarge and reduce maps using GIS; • Explain how to present geographic information; • Interpret graphs, charts, and diagrams; and • Make administration map using geographical information system.	**Geospatial Information and Data Processing (15 periods)** 8.1 Basic Concepts of Geospatial Information (3 periods) 8.1.1 The Similarity and Difference between Information and Data 8.1.2 Basic concepts of geospatial data 8.2 Sources and tools of geographic data (3 periods) 8.2.1 Sources of geographical data 8.2.2 Tools for geographical data collection 8.3 Geographic Data Representations (2 periods) 8.4. Advances in Mapmaking and the Birth of Geographic Information System (4 periods) 8.4.1 Historical development of map making 8.4.2 Geographical Information System (GIS) 8.4.3 the components of GIS 8.5. Making and Interpretation of Graphs, Charts and Diagrams (3 periods)	• Assign students to prepare simple maps, charts and diagrams using geographic information related to issues discussed in the previous chapter. • **Project:** Use geographical and digital skills in your project on urbanization or coastal pollution and focus on a particular location to show some of the problems **Project** on: Generating spatial data using GPS technology and present the data in the form of map Sketching and interpreting major economic activities and population density using chart, graphs, and diagram across Africa	• Assess students' work and provide individual feedback • Record students' performance in the various aspects of the Unit and give them a comprehensive feedback at the end of the Unit.

4.3. Grade 11 Syllabus

Grade Level Learning Outcomes: Grade 11

1. **Create understanding and acquire knowledge of:**
   - the Earth's geological history;
   - the theories, and processes involved in the formation of the Earth's continents;
   - the relative distribution and mass of continents and oceans over geological time span;
   - The factors influencing world climatic regions;
   - The local, Trewartha's and Koppen's methods of climate classification;
   - The effects of population pressure on land;
   - The socioeconomic factors behind major population problems;
   - the underlying factors of international migration;
   - the effects of geographic location on economic development;
   - the impacts of climate on economic development;
   - the disadvantages of landlocked countries and the challenges it poses on economic development;
   - the level and hurdles of intraregional trade in Africa;
   - the intricate relationship between poverty and the environment;
   - the effects of poverty on land degradation;
   - population related public concerns of our contemporary world;
   - environmental degradation and its role in desertification;
   - the basic concepts of geographic information system; and
   - the components of GIS.

2. Develop skills and abilities to:
   - sketch the diagram how the relative distribution and mass of continents and oceans over geological time span;
   - illustrate climates of an area based on Köppen's classification methods;
   - review the local, Trewartha's and Köppen's methods of climate classification;
   - demonstrate world climatic regions on a map;
   - analyze the relationships between resource over use, environmental degradation and population growth;
   - compare annual water uses of Ethiopia, Sudan and Egypt;
   - show trend and pattern of world population growth;
   - compare the population growth trends of LDCs and MDCs;
   - analyze effects of geographic location on economic development;
   - collect and analysing data on the role poverty plays in deforestation;
   - demonstrate areas frequently affected by drought and famine;

- depict different relief features on a topographic map;
- start using main tools of Arc Map; and
- make and interpreting different types of map.

3. Develop the habits and attitudes to:

- explain the assumptions and processes involved in the formation of the Earth’s continents;
- explain the climate classification efforts in Ethiopia;
- value why renewable or non-renewable resources are under immense pressure;
- argue how unfair water use could lead to regional conflict;
- explain the effects of poverty on land degradation;
- appreciate sustainable development is the solution for sustainable environment; and
- adhere the threats deforestation poses on our world.

Unit One: Formation of the Earth's Continents (10 periods)

Learning Outcomes: By the time students complete this unit, they will be able to:

- recognize the Earth's geological history;
- explain the theories, assumptions and processes involved in the formation of the Earth's continents; and
- describe the relative distribution and mass of continents and oceans over geological time span.

Competencies	Contents	Learning Strategies	Assessment
▪ Apply the geological timescale for the explanation of the geological processes and associated life-forms; ▪ Describe the difference between relative and absolute ages of the Earth's rocks; and ▪ Examine the Geological Eras of the Earth.	**Formation of the Earth's Continents (10 periods)** 1.1. Geological time scale (4 periods) 1.2. Formation of the Earth's continents (3 periods) 1.3. Distribution of the Earth's continents and oceans(2 periods) 1.4. Changing position Earth's continent and oceans over geological time (1 period)	▪ Form groups each consisting of five students to draw a model of geological timescale on a flipchart or paper ▪ Organize students to undertake collaborative learning on the formation of the Earth's continents ▪ Group students to make sketch of the Earth's continents and oceans at different geologic time span	▪ Provide feedback on class discussion and collaborative learning process ▪ Observe activities while learners are engaged in group activities and collaborative learning ▪ Ask students to present the discussion outcomes ▪ Record the performance and provide feedback on class discussion and collaborative learning process results ▪ Evaluate the students' performance by administering quizzes and tests

Unit Two: Climate Classification and Climate Regions of Our World (16 periods)

Learning Outcomes: By the time students complete this unit, they will be able to:

- list the criteria commonly used to classify climates of an area;
- identify the factors influencing world climatic regions;
- classify climates of an area based on Köppen's classification methods;
- explain the climate classification efforts in Ethiopia;
- compare and contrast the local, Trewartha's and Koppen's methods of climate classification; and
- indicate world climatic regions on a map.

Competencies	Contents	Learning Strategies	Assessment
▪ Differentiate between the criteria used to classify climates in different classification schemes; ▪ Classify climates of a region based on Köppen's and Trewartha's climate classification method; ▪ Evaluate the merits and demerits of Köppen's climate classification; ▪ Illustrate the distribution of Köppen's climatic regions in the form of map; ▪ Identify the Trewartha's climate classification methods; ▪ Recognize the difference and similarity between Trewartha's and Köppen-Geiger climate classification system; ▪ Describe world climatic regions; ▪ Identify the factors responsible for formation of world climatic regions; and ▪ Describe the local climate types of Ethiopia; and ▪ Compare the methods used in climate classification locally against that of Köppen.	**2. Climate Classification and Climate Regions of Our World (16 periods)** 2.1. Criteria for climate classification (1 period) 2.2. Köppen's climate classification(4 periods) 2.3. Trewartha's climate classification(3 periods) 2.4. World climatic regions (3 periods) 2.5. Factors influencing the world climatic regions(4 periods) 2.6. Local/indigenous climate classification of Ethiopia (1 period)	▪ Ask students to list the criteria used in climate classification ▪ Start from prior knowledge of the students by asking them to list the climate types they locally know ▪ Form groups consisting of five students to discuss how the local climate classification differs from Koppen's classification method ▪ Organize the students to undertake collaborative learning on factors that	▪ Review and provide feedback on the performance of each student ▪ Observe activities while learners are engaged in group activities and collaborative learning ▪ Provide feedback on class discussion and collaborative learning process ▪ Ask students to present to present the discussion outcomes ▪ Record the performance and provide feedback on class discussion and collaborative learning process results ▪ Evaluate the students' performance by administering quizzes and tests

		influence world climatic regions	

Unit Three: Natural Resources and Conflicts over resources (16 periods)

Learning Outcomes: By the time students complete this unit, they will be able to:

- describe the importance of land as a natural resource;
- specify the functions of land;
- describe the intricate relations between land and people, and management strategies for sustainability;
- assess the effects of population pressure on land;
- explain why renewable or non-renewable resources are under immense pressure;
- analyze the relationships between resource over use, environmental degradation and population growth;
- compare annual water uses of Ethiopia, Sudan and Egypt; and
- explain how unfair water use could lead to regional conflict.

Competencies	Contents	Learning Strategies	Assessment
▪ Describe the importance of land as a natural resource; ▪ Specify the functions of land; ▪ Evaluate the intricate relations between land and people and management strategies for sustainability; ▪ Assess the effects of population pressure on land; ▪ Explain why renewable or non-renewable resources are under immense pressure; ▪ Analise the relationships between resource overuse, environmental degradation, and population growth; ▪ Compare annual water uses of Ethiopia, Sudan, and Egypt; and	**3. Natural Resources and Conflicts Over Resources (16 periods)** 3.1. The functions and management of land (2 periods) 3.2. Resources under pressure (3 periods) 3.3. Land resource depletion and degradation (3 periods) 3.4. Transboundary rivers (2 periods) 3.5. Regional cooperation for sustainable use of transboundary rivers (2 periods) 3.6. Potential and actual use of water in	▪ Form groups consisting of five students to discuss why land should be given special attention among all natural resources ▪ Organize the students to undertake collaborative learning on consequences of resource depletion ▪ Assign students to conduct a debate on water use trend of Ethiopia as compared to use by downstream countries. ▪ Form small groups and ask the students to perform role play on the stances of Ethiopia, Sudan and Egypt in utilization of Nile River ▪ Ask the students to draw map of countries in the Nile basin containing the course	▪ Review and provide feedback on the performance of each student ▪ Observe activities while learners are engaged in group activities and collaborative learning ▪ Provide feedback on class discussion and collaborative learning process ▪ Ask students to present the discussion outcomes ▪ Record students' performance and provide feedback on class discussion and collaborative learning process at the end of the Unit

▪ Explain how unfair water use could lead to regional conflict.	Ethiopia, Sudan and Egypt (2 periods) 3.7. Conflicts over resources (2 periods)	of major rivers ▪ Select two students from a class to debate on "Right to use water resources by Upper Stream Countries"	▪ Evaluate students' performance by administering quizzes and tests

Unit Four: World Population Trends and Problems (14 periods)

Learning Outcomes: By the time students complete this unit, they will be able to:

- examine the trend of world population growth;
- recognize the socioeconomic factors behind major population problems;
- compare the population growth trends of LDCs and MDCs; and
- assess the underlying factors of international migration.

Competencies	Contents	Learning Strategies	Assessment
▪ Demonstrate the trend of world population growth; ▪ Compare and contrast the population growth patterns of LCDs and MDCs; ▪ Identify factors affecting population distribution in Ethiopia; ▪ Assess the effects of uncontrolled population growth; ▪ Explain the socioeconomic factors attributed to population growth; ▪ Explain causes and consequences of international migration; and ▪ Recognize policies on population migration and distribution.	**4. World Population Trends and Problems (14 periods)** 4.2. The growth of world population (6 periods) 4.2.1. Population trends in LDCs 4.2.2. Population trends in MDCs 4.2. Factors responsible for accelerated population growth (3 periods) 4.3. International migration(3 periods) 4.4. Population policies(2 periods)	▪ Organize the students to undertake collaborative learning on how population becomes a problem ▪ Form buzz groups to discuss on patterns of population growth in developing and developed countries ▪ Divide learners into groups and let them explain the socioeconomic problems created by uncontrolled population growth ▪ Arrange students to debate on how unbalanced population growth leads to unplanned	▪ Review and provide feedback on the performance of each student ▪ Observe activities while learners are engaged in group activities and collaborative learning ▪ Provide feedback on class discussion and collaborative learning process ▪ Ask students to present the discussion outcomes ▪ Record students' performance and provide feedback on class discussion and collaborative learning process results ▪ Evaluate students' performance by

		migration	administering quizzes and tests

Unit Five: Geography and Economic Development (14 periods)

Learning Outcomes: By the time students complete this unit, they will be able to:

- evaluate the effects of geographic location on economic development
- examine the impacts of extreme climates on poverty
- examine the disadvantages of landlocked countries and the challenges it poses on economic development
- discuss the level and hurdles of intraregional trade in Africa

Competencies	Contents	Learning Strategies	Assessment
▪ Describe the effects of geographic location on economic development; ▪ Examine the impacts of extreme climates on poverty; ▪ Evaluate the drawbacks facing landlocked countries for development; and ▪ Review the levels	**5. Geography and Economic Development (14 periods)** 5.1. Effects of geographic location on development (5 periods) 5.2. Climate extremes and poverty (3 periods) 5.3. Disadvantages of landlocked countries (3	▪ Assign students to come up with list of types of activities people undertake for living in their respective localities ▪ Divide learners into groups and let them discuss on the effects of geographic location on development ▪ Form groups each consisting of 5 students to debate whether extreme climates accelerate poverty or not ▪ Form groups each consisting of 5 students to discuss the disadvantages landlocked countries face on economic	▪ Ask students to peer evaluate presentation on list of activities they identified ▪ Observe the group discussions Ask students to present the discussion outcomes ▪ Record students' performance and provide feedback ▪ Provide feedback and conclusions at the end of each class and Unit ▪ Evaluate students' performance by

Unit Six: Major Global Environmental Changes (14 periods)

Learning Outcomes: By the time students complete this unit, they will be able to:

- describe the nature and characteristics of persistent environmental changes
- explain the nature and characteristics of emerging environmental changes
- examine the intricate relationships between poverty and environment
- recognize sustainable development is the solution for sustainable environment

Competencies	Contents	Learning Strategies	Assessment
▪ Describe the nature and characteristics of persistent environmental changes; ▪ Explain the nature and characteristics of emerging environmental changes; ▪ Examine the intricate relationships between poverty and environment; and ▪ Recognize that sustainable environment is part of a sustainable development.	**6. Major Global Environmental changes (14 periods)** 6.1. Persistent environmental problems (8 periods) 6.1.1. Habitat destruction 6.1.2. Agricultural intensification 6.1.3. Overexploitation of resources 6.1.4. Invasive species 6.2. Poverty – environment nexus (4 periods) 6.3.1. Poverty and land degradation 6.3.2. Poverty and deforestation 6.4. Environmental degradation and sustainable development (2 periods)	▪ Form groups to discuss on the nexuses between poverty and environment ▪ Organize students to undertake collaborative learning on how poverty, land degradation and deforestation are related ▪ Ask students to debate in groups by taking positions on: “Is it the poor or the very rich who consume much of environmental resources? Hence, who creates the most damage to the environment?”	▪ Observe activities while learners are engaged in group activities ▪ Ask students to present their group work task ▪ Record students’ performance and provide feedbacks at the end of each class and Unit ▪ Ask students to present summary of their debate

Unit Seven: Geographic Issues and Public Concerns (**17 periods**)

Learning Outcomes: By the time students complete this unit, they will be able to:

- explain the dynamics of world's population over time;
- elaborate population related public concerns of our contemporary world;
- identify the ever-unrestrained problem of unemployment and underemployment;
- describe environmental degradation and its role in desertification;
- identify areas frequently affected by drought and famine;
- explain the threats deforestation poses on our world; and
- explain the emerging digital divide between different regions of the world.

Competencies	Contents	Learning Strategies	Assessment
▪ Describe the temporal dynamics of world population; ▪ Examine population-related public concerns of our contemporary world; ▪ Evaluate the relationship between family size and education access in the developing and developed world; ▪ Evaluate the ever-unrestrained problems of unemployment and under employment; ▪ Describe the mismatch between population growth and the rate of economic growth; ▪ Describe environmental	**7. Geographic Issues and Public Concerns (17 periods)** 7.1. World population dynamics (2 periods) 7.2 Population related concerns of our contemporary world (6 periods) 7.2.1 Family size, education, and income 7.2.2 Rates of population and economic growth 7.2.3 Unemployment and underemployment 7.3 Environmental degradation and desertification (3 periods) 7.4 Recurrent drought and famine (3 periods) 7.5. Worldwide Digital Divide (3 periods)	▪ Divide students into groups and let them discuss on global change of population in different parts of the world. ▪ Form groups each consisting of 5 students to debate on large family size vs. small family size. ▪ Form groups each consisting of 5 students to discuss how population size of countries affects employment. ▪ Organize the students to undertake	▪ Observe the group discussions. ▪ Record students' performance and provide feedback and conclusions. ▪ Ask students to present the discussion outcomes. ▪ Evaluate students' performance by administering quizzes and tests.

degradation and its role in desertification; ▪ Identify areas frequently affected by drought and famine; ▪ Examine the threats deforestation poses on our world; and ▪ Appreciate the emerging digital divide between different regions of the world.		collaborative learning on how deforestation is grave concern of the world.	

Unit Eight: Geographic Enquiry, Skills and Techniques **(14 periods)**
Learning Outcomes: By the time students complete this unit, they will be able to:

- depict different relief features on a topographic map;
- explain the basic concepts of geographic information system;
- identify the components of GIS; and
- start using main tools of available GIS software.

Competencies	Contents	Learning Strategies	Assessment
▪ Depict different relief features on a topographic map; ▪ Explain the basic concepts of geographic information system; ▪ Describe the components of GIS; ▪ Master the basic steps of opening, saving and closing of ArcMap on a computer; ▪ Acquainted with the main tools of ArcMap and available GIS software; ▪ Open, add, and display spatial data on ArcMap; and ▪ Making map of different geographical issues distribution.	**8. Geospatial Information and Data Processing (14 periods)** 8.1. Representations of relief features on topographic maps (4 periods) 8.2. Basic concepts of GIS (3 periods) 8.3. Arc map and main tools (7 periods)	▪ Engage students in assessment of relief features on a topographic map ▪Check students' prior knowledge about computer, ▪ Encourage students to practice in basic computer skills training provided by ICT classes ▪ Explain the basic concepts of GIS, showing the basic steps of opening, saving and closing ArcMap document ▪ Let students to practice the steps ▪ Give students assignment to produce or display map of Ethiopia on the computer **Project**: Making map of different geographical issues distribution	▪ Observe students' activities and encourage them to use the computer ▪ Record interaction and performance ▪ Assist students while they practice on the computer ▪ Provide feedback regularly

4.4. Grade 12 Syllabus

Grade Level Learning Outcomes: Grade 12

1. Create understanding and acquire knowledge of:

- the theory of continental drifting and controversies surrounding it;
- the movement of the lithospheric plates over geological time;
- the main types of plate boundary and how they interact at triple junctions;
- the driving and retarding forces that influence plate motion at different plate boundaries;
- the major geological processes which resulted in the formation of continents;
- natural, and human induced climate change;
- trends in climate change in Ethiopia and the world at large ;
- the cause and effects of world climate change;
- major climate change mitigation and adaptation strategies;
- the purpose and pillars of the Ethiopian climate change resilient green economic strategy;
- the meaning, main focus, goals and principles of sustainable development;
- the principle and characteristics of good governance;
- the problems of land use policy in Ethiopia;
- major population growth and development theories;
- the impact of population policies on population growth;
- impact of population growth to socio- economic development and environmental health;
- the major global economic challenges by assessing global risks and priorities;
- the advantage and limitations of globalization to the developing world;
- why and how trade imbalance occurs between developing and developed world;
- the impact of corruption on economic development;
- the major global health issues and problems;
- the major cause and effects of poverty;
- historical background of environmental movements that suggest models worth emulating to address environmental issues and problems in their locality and country at large;
- strengths and limitations of indigenous environmental protection practices;
- why climate change is perceived as a contemporary global issue;
- the cause and effects of desertification, drought and famine;
- key strategies to address desertification, drought and famine;
- basics research knowledge and skills to undertake different applied research;

- different approaches used in geographic research; and
- how to read topographic map and the difference between qualitative and quantitative distribution maps.

2. Develop skills and abilities to:

- draw diagram how driving and retarding forces that influence plate motion at different plate boundaries;
- sketch the diagram how plate movements relate to plate boundaries;
- show trends in climate change in Ethiopia and the world at large;
- review the major international conventions and agreements in view of their strengths and limitations;
- illustrate how the trade imbalance occurred between developing and developed worlds;
- demonstrate the major global health crisis;
- collect and analysing data using different methods for geographical issues;
- conduct applied research; and
- interpret different types of map.

3. Develop the habits and attitudes to:

- appreciate the pillars of climate change resilient green economy of Ethiopia;
- appreciate the main focus, goals and principles of sustainable development;
- adhere to the realization of the impact of population policies on population growth;
- adhere strategies aimed at balancing population growth with environmental resources;
- show interest for the realization of the problems of land use policy in Ethiopia and adhere themselves to the alternative policies and approaches;
- conduct anti-corruption movement;
- show interest for the realization of historical background of environmental movements suggest models worth emulating to address environmental issues and problems in their locality and country at large;
- show interest for the realization and implementing of different indigenous environmental protection practices to mitigate environmental problems; and
- adhere the key strategies to address desertification, drought and famine.

Unit One: Major geological processes associated with plate tectonics (14 periods)

Learning Outcomes: By the time students complete this unit, they will be able to:

- explain the theory of continental drifting and controversies surrounding it;
- describe and explain the movement of the lithospheric plates over geological time;
- explain the main types of plate boundary and how they interact at triple junctions;
- describe and explain the driving and retarding forces that influence plate motion at different plate boundaries;
- explain how plate movements relate to plate boundaries; and
- explain the major geological processes which resulted in the formation of continents.

Competencies	Contents	Learning Strategies	Assessment
• Explain how continental drift theory and plate tectonics are related; • Explain how plate tectonic is related to geological processes; • Describe the major geological processes and their importance; • Drawing diagram how driving and retarding forces that influence plate motion at different plate boundaries; • Sketching the diagram how plate movements relate to plate boundaries; • Identify the major plate tectonic boundaries; and • Explain how geological	**1.Major Geological Processes Associated with Plate Tectonics (14 periods)** 1.1. Continental drift theory**(3 periods)** 1.2. Plate tectonics theory**(3 periods)** 1.3. Plate movements and plate boundaries**(4 periods)** 1.4. Major geological processes (4 periods**)**	• Form groups to discuss on controversies underlying continental drift theory and plate tectonics • Divide learners into groups/teams and let them explain the relationship between continental drift theory and plate tectonics • Ask students to conduct a group discussion on evidences that support continental drift theory, and drawbacks of the theory • Organize students into smaller groups so as to undertake a collaborative learning on how plate tectonic is related to geological processes • Form groups to conduct a dialogue on plate movements and plate boundaries. • **Project:** Make a library and/or online research and prepare a small report on “The impact of	• Conduct a systematic observation of groups/teams as they undertake group work/discussions • Ask students to present the discussion outcomes • Ask one or two students to present the summary of their debate • Record the performance of groups and provide feedback on results of class discussion, collaborative learning process, and dialogue at the end of the unit • Evaluate students’ performance by giving quizzes and tests

processes and plate boundaries affect human lives.		geological processes and plate boundaries on human life”	

Unit Two: Climate Change (19 periods)

Learning Outcomes: By the time students complete this unit, they will be able to:

- explain basic concepts of climate change;
- distinguish between natural and human induced climate change;
- analyze trends in climate change in Ethiopia and the world at large;
- recognize the major climate change mitigation and adaptation strategies;
- explain the purpose and pillars of the Ethiopian Climate Change Resilient Green Economic Strategy; and
- assess the major international conventions and agreements in view of their aspirations and achievements so far.

Competencies	Contents	Learning Strategies	Assessment

• Define climate change; • Describe the natural and human induced climate change by giving examples; • Illustrate the global trends in climate change; • Examine the impacts of climate change on human beings and other life forms; • Propose and sketch the major climate change adaptation and mitigation strategies; • Participate in climate change mitigation and adaptation related practices; • Assess the the pillars of climate change resilient green economy of Ethiopia; and • Review the major international conventions and agreements in view of	**2. Climatic Change (19 periods)** 2.1. Basic concepts of climate change (2 periods) 2.2. Trends in global climate change (2 periods) 2.3. Natural and human induced climate change(3 periods) 2.4. Consequences of Climate change(3 periods) 2.5. Adaptations and mitigations strategies to climate change(4 periods) 2.6. Pillars of Climate Resilient Green Economy of Ethiopia (2 periods) 2.7. International	• **Brainstorm** on basic concepts of climate change • **Form groups**/teams to discuss on the natural and human induced climate change: trends, causes and effects • Organize the class to undertake a **collaborative learning** on climate change adaptations and mitigations strategies • Organize **a fieldwork** to observe and record data related to indigenous climate change mitigation and adaptation practices. • Assign students to present best practices from fieldwork to a wider school community using **school mini-media** or other appropriate means • Form small group and ask students to discuss on pillars of Climate Change Resilient Green Economy of Ethiopia • **Debate:** Hold a debate on the advantages and limitations	• Conduct a systematic observation of groups/teams as they undertake group work/discussions • Ask students to present the discussion outcomes • Ask students to present a summary of their debates and dialogue • Record the performance and provide feedback on results of collaborative learning process, class discussion, case studies, debates, and dialogue at the end of the unit

Unit Three: Issues in Sustainable Development I: Management of Conflict over Resources (17 periods)
Learning Outcomes: By the time students complete this unit, they will be able to:

- recognize the meaning of sustainable development;
- recognize the main focus, goals and principles of sustainable development;
- explain the principle and characteristics of good governance; and
- understand the problems of land use policy in Ethiopia.

Competencies	Contents	Learning Strategies	Assessment
• Define sustainable development; • Elaborate the different dimensions of sustainable development in their local context; • Assess progress in achievement status of sustainable development goals globally and in their local context; • Explain the principles and characteristics of governance of natural resources; • Participate in actions aimed at ensuringgovernance of natural resources in their locality; • Examine conflict over resources in their localities along with approached to address	**3. Issues in Sustainable Development I: Management of Conflict over Resources (17 periods)** 3.1. Environmental sustainability (6 periods) 3.1.1. Economic viability, 3.1.2. Environmental protection 3.1.3. Social equity 3.2. Sustainable development (3 periods) 3.3. Governance of natural resources (2 periods) 3.4. Resource use policies and related conflicts (3	• Form groups to discuss on concept, dimensions and measurement of sustainable development • Assign students to conduct a case study to the progress in achieving one of the sustainable development goals (e.g. ending hunger) in their locality. • Organize the class into teams to undertake a collaborative learning on principles and characteristics of good governance in addressing conflict over resources • **Debate:** It their good governance in your locality? The class could be divided into small groups. • **Project:** “Level of participation of local communities during preparation of policies on	• Conduct a systematic observation of groups/teams as they undertake group work/discussions • Ask students to present the discussion outcomes • Record the performance and provide feedback to reports on class discussion, collaborative learning process, debate, projects work, and case studies at the end of the unit • Evaluate students’ performance by

Unit Four: Issues in Sustainable Development II: Population Policies, Programs and the Environment (15 periods)

Learning Outcomes: By the time students complete this unit, they will be able to:

- identity and explain major population growth and development theories;
- analyze and explain the impact of population policies on population growth;
- relate population growth to socio- economic development and environmental health; and
- recommend strategies aimed at balancing population growth with environmental resources.

Competencies	Contents	Learning Strategies	Assessment
• Explain theories on population growth and development; • Analyse the effectiveness of population policies in developing countries by taking concrete examples; • Explain the link between population growth, socio-economic development, and environmental health; and • Develop effective measurement taken to curb growth of	**4. Issues in Sustainable Development II: Population Policies, Programs and the Environment (15 periods)** 4.1. Theories on population growth and development (3 periods) 4.2. Relationship between population and socio-economic development (3 periods) 4.3. Relationship between population and environmental health (3 periods) 4.4. Population policies (3 periods) 4.5. Measures taken to curb growth of population (3 periods)	• Form small groups to discuss on strengths and weaknesses of the diverse theories on population growth and development • **Dialogue**: Conduct a dialogue on "Performance and impacts of population policies in developing countries" • Organize the class into teams to undertake a collaborative learning on the relationship between population, socio-economic development and environmental health by taking local examples • **Project:** Conduct a case study on effectiveness of measurements taken to curb growth of populationin Ethiopia over the past two decades. The study could be done individually or in groups.	• Conduct a systematic observation of groups/teams as they undertake group work/discussions • Ask students to present the discussion outcomes • Ask students to present their dialogue outputs, and research reports. • Record students' performance and provide feedback on class discussion, dialogue, collaborative learning process, and case study reports at the end of the unit • Evaluate the students' performance by administering quizzes, tests and exams

Unit 5: **Issues in Sustainable Development III: Challenges of Economic Development (15 periods)**

Learning Outcomes: By the time students complete this unit, they will be able to:

- identify the major global economic challenges by assessing global risks and priorities;
- analyse the advantage and limitations of globalization to the developing world;
- explain why and how trade imbalance occurs between developing and developed world;
- describe the impact of corruption on economic development;
- explain the major global health issues and problems; and
- recognize the major cause and effects of poverty.

Competencies	Contents	Learning Strategies	Assessment
• Explain the causes of poverty and their link to economic development; • Explain the relationship between conflict and poverty; • Explain how globalization affects economic development in developing countries; • Demonstrate why and how trade imbalance occurs between developing and developed countries using concrete examples; • Demonstrate how corruption a affects economic development by taking concrete examples; and • Explain the major crises of global health and their impact on economic development.	5. **Issues in Sustainable Development III: Challenges of Economic Development** (**15 periods**) 5.1. Major economic challenges (2 periods) 5.2. Multiple faces of poverty and implication to development (2 periods) 5.3. The advantages and limitations of globalization (3 periods) 5.4. The growing imbalance between regions and countries (3 periods) 5.5. Corruption (3 periods) 5.6. Global health	• Form groups/teams to discuss on the multiple faces of poverty by taking examples from rural and urban areas • Organize the class to undertake a collaborative learning on the impact globalization on developing countries by taking Ethiopia as an example • **Debate:** Conduct a debate on the role of poor and rich countries in brining bout global imbalance. • Discuss on why corruption become a serious challenge for economic development • **Project:** Assess the impact of global health crises on economic development by taking the impact of COVID 19 as an example. Students could generate data from multiples sources including online materials	• Conduct a systematic observation of groups/teams as they undertake group work/discussions • Ask students to present to present the discussion outcomes • Ask students to present their dialogue and project work reports • Record students' performance and provide feedback on class discussion, collaborative learning process, debate and dialogue at the end of the unit • Evaluate the students 'performance by administering quizzes, tests and exams,

	crises (2 periods)		

Unit 6: Issues in Sustainable Development IV: Solutions to Environmental and Sustainability Problems (9 periods)

Learning Outcomes: By the time students complete this unit, they will be able to:

- evaluate environmental and sustainability problems at global, national and local scales; and reflect critically their roles and responsibilities as environmental actors in an interconnected world;
- assess the historical background of environmental movements suggest models worth emulating to address environmental issues and problems in their locality and country at large; and
- identify indigenous environmental protection, knowledge, practices, and assess their strengths and limitations.

Competencies	Contents	Learning Strategies	Assessment
• Compare and contrast environmental and sustainability problems; • Define environmental movement, environmental education, and education for sustainable development; • Explain the types of environmental and sustainability education (formal, non-formal, informal); • Participate in or initiate environmental movement aimed at addressing environmental threats caused by human activities at local or national level; and	**6. Issues in Sustainable Development IV: Solutions to Environmental and Sustainability Problems**(9 periods**)** 6.1. Environmental and sustainability education (3 periods) 6.2. Environmental movements (3 periods) 6.3. Environmentally	• Brainstorm on major environmental and sustainability problems from global to local scales • Organize the class into groups to undertake collaborative learning on the different types of environmental education in Ethiopia. • **Debate:** Conduct a debate on the "Strengths and weaknesses of environmental movements" taking some of such movements conducted in Ethiopia as examples. • **Project:** conduct a fieldwork to see the role of indigenous practices in mitigating environmental problems.	• Conduct a systematic observation of groups/teams as they undertake group work/discussions • Ask students to present the discussion outcomes • Ask students to present their dialogue and case study reports • Ask students to present their fieldwork reports • Record students' performance and provide feedback on class discussion, debate, collaborative learning process, and project work reports at the end of the unit

Unit 7: Global Geographic Issues and Public Concern (6 periods)

Learning Outcomes: By the time students complete this unit, they will be able to:

- explain why climate change is perceived as a contemporary global issue;
- recognize the cause and effects of desertification;
- describe and explain the major causes and effects of drought;
- describe and explain the major causes and effects of famine; and
- identify and explain the key strategies to address desertification, drought and famine.

Competencies	Contents	Learning Strategies	Assessment
• Explain why climate change became a global issue and a serious cause for public concern; • Explain the causes of and possible link between drought, desertification and famine; • Describe the major human induced and natural causes of desertification; • Explain the consequences of desertification taking a concrete example from East Africa; • Differentiate between the causes and effects of drought and famine, taking two countries as examples; and • Participate in activities aimed at mitigation of the impact of desertification, drought and famine in your locality and country at large.	**7.Global Geographic Issues and Public Concer n(6periods)** 7.1. Climate change (2 periods) 7.2. Desertificat ion (2 periods) 7.3. Drought and famine (2 periods)	• Form groups/teams to discuss on why climate change is perceived as a contemporary geographical issue and public concern • Organize the class into smaller groups so as to undertake a collaborative learning on the concepts, causes and consequences of desertification, drought, and famine • **Fieldwork:** Conduct a firework to see areas affected by desertification, drought, and famine. • **Dialogue:** Conduct a dialogue on effectiveness and limitations of diverse strategies currently used to address desertification, drought and famine in Ethiopia and courtiers of East Africa.	• Conduct a systematic observation of groups/teams as they undertake group work/discussions • Ask students to present the discussion outcomes • Ask students to present their dialogue and case studies reports • Record students' performance and provide feedback on class discussion, collaborative learning process, and dialogue at the end of the unit • Evaluate students' performance by administering quizzes, tests and exams.

Unit 8: **Geographical Enquiry and Map Making (19periods)**
Learning Outcomes: By the time students complete this unit, they will be able to:

- acquire basics research knowledge and skills to undertake geographic research;
- select and use different approaches in geographic research; and
- make different types of map and interpret them.

Competencies	Contents	Learning Strategies	Assessment
• Differentiate between qualitative and quantitative methods; • Elaborate the distinctive nature of geographic research; • Construct statistical diagrams using generated data from various sources; • Make administrative, topographic, and watershed maps; and • Interpret different type of maps.	**8.Geographical Enquiry and Map Making**(19 periods) 8.1. Basics of research method in geography (3 periods) 8.2. Types of geographical research (3 periods) 8.3. Approaches and methods of research (3 periods) 8.4. Gathering and analyzing geographic information (4 periods) 8.5 Map making using geographical information system (7	• Form groups/teams to discuss on the strength and drawbacks of different types of research • Organize the class into smaller groups to undertake a collaborative learning on approaches and methods of geographical research • Assign students to conduct action research using quantitative and qualitative approaches • **Project**: making administration units or Watershed map using geographical information system • Ask the students to interpret different types of map	• Conduct a systematic observation of groups/teams as they undertake group work/discussions • Ask students to present the project work results and interpret the produced maps • Record students' performance and the provide feedback on class discussion, collaborative learning process, action research and project work at the end of the unit • Evaluate students' performance by administering quizzes,

References

https://www.geography.org.uk/write/MediaUploads/Support%20and%20guidance/GA_GINCConsultation_ThinkingGeographically_NC_2012.pdf