**ADAPTED A-LEVEL GEOGRAPHY SYLLABUS**

**December 2024**

**INTRODUCTORY SECTION OF ADAPTED A LEVEL SYLLABUS, 2024**

**SECTION 1**

**1.0 Introduction**

The Advanced Level Secondary Curriculum has been re-organised to align it to the Lower Secondary Competency based model for ease of progression of learners from the Lower to Advanced Secondary Level. The alignment is as a result of the analysis of the existing Advanced Level curriculum published in 2013, to determine whether the content is:

1. Appropriate
2. High pitched or overload
3. Covered at Lower Secondary
4. Obsolete
5. Repeated in different topics and redundant

The results from the curriculum analysis revealed that there were overlaps of concepts with what was covered at the Lower Secondary as well as concepts within different topics of the same subject. In addition, a number of syllabuses had content that is no longer necessary for today’s contemporary society and the 21st century. This led to content overloads in those syllabuses.

**1.1 Changes to Curriculum**

The alignment of the existing A-Level Curriculum to the Lower Secondary made changes in the pedagogies of learning from a knowledge and objective based approach to an integrated and learner centered competency-based approach. The adapted syllabus therefore is a result of rationalizing, integrating and merging content with overlaps and similar skills, dropping topics that had been studied at Lower Secondary, or, no longer critical and relevant for the current learning needs and upgrading those that were of low competencies to match with the advanced level. The learning process has been clearly stipulated in the scope and sequence chart recognising progression of learning derived from the learning outcomes with corresponding assessment strategies. The detailed syllabus page unfolds the learning experiences and achievement expectations as a process rather than an event.

This Geography syllabus is part of the Adapted A-Level Curriculum published for S5 intake for learners who have studied under the Revised Lower Secondary Curriculum. It is important that you read the whole syllabus before planning you’re teaching programme since many topics have been merged, upgraded, or removed. While aligning this syllabus, efforts were made to ensure a smooth progression of concepts from Lower Secondary level, adapting topics and content with familiar features that are of value to the learner and the society. In addition, the process of developing this syllabus document removed what was considered obsolete, high pitched as well as content overlaps and overloads.

**Inclusion**

The Adapted A-Level Curriculum is designed to empower all learners, including those with Special Educational Needs (SEN), to reach their full potential and contribute meaningfully to the nation. By incorporating inclusive strategies, the curriculum ensures equitable access to high-quality learning opportunities while maintaining high academic standards. It emphasizes creating an inclusive learning environment that supports the diverse needs of learners with SEN, enabling them to succeed alongside their peers.

This subject promotes diversity, equity, and holistic development by providing the necessary support for learners with SEN throughout their educational journey. By fostering these values, it prepares all learners to contribute positively to society, equipping them with the skills and knowledge to thrive in a diverse and inclusive world. Geography exemplifies these principles, ensuring every learner has the opportunity to succeed academically and socially.

**Classroom Based Assessment:**

This syllabus requires classroom learning to be experiential through the suggested learning activities for the acquisition of the learning outcome requirements. This is the gist for a learner centered and activity-based approach to learning which emphasises acquisition of required competencies. Formative assessment in Geography will focus on the acquisition of knowledge and skills through performance of the learning activities. The learning activities sprout from the learning outcomes which are evidenced by acquiring and demonstrating application of the desired skills to show that learning has taken place. The sample assessment strategies have been provided to guide the teacher on classroom-based assessment. The teacher can develop more assessment strategies based on the same principals of observations, conversation and product for the acquisition of the desired knowledge, skills, values and attitudes. (See detailed syllabus page)

**Generic Skills**

The generic skills are not separate subjects but lie at the heart of every Subject. They are the skills that enable the learner to access and deepen learning across the whole curriculum. They are the same skills that are sought by employers and which will unlock the world of work. They are the skills that allow learners to develop the skill of learning for life (lifelong learners) and adapt to change in order to cope with the challenges of life in the 21st Century.

This curriculum requires learners to think critically and solve problems, both at school and in their community. They need to be creative and innovative in their approach to learning and life, communicate well in all forms, co- operate with others and also work independently, in addition to using functional mathematics and ICT effectively.

**Projects**

Projects and project-based learning are part and parcel of learning in the 21st century. A number of projects have been integrated in the syllabus for different topics. These are but samples. You are encouraged to develop more projects with your learners that can easily be linked to what is happening in your local environment. While doing this, make effort to keep aligned to the learning outcomes of the topic you are teaching.

**1.2 Aims of the Geography Programme at A Level**

The Advanced level curriculum aims to develop learners to:

1. Develop skills that are necessary for harnessing natural resources in a sustainable manner.
2. Think systemically thereby enabling them to appreciate the intricate relationship between human actions in different parts of the world and the local and global environment.
3. Develop the ability to think critically and present structured, coherent and evidence-based arguments.
4. Interpret the world they live in a spatial perspective and to recognise the role of personal and collective responsibility in addressing contemporary challenges including environmental, health and socioeconomic crises.
5. Gain the ability to peruse farther studies and engage in gainful employment in fields which require a strong foundation in geography and geographic methods of work and thinking.
6. Develop an ability to interpret and evaluate primary, secondary, qualitative and quantitative information and come up with reasoned conclusions

**1.3 Content overview**

The areas of study have been re-organised within the syllabus to come up with the adapted version. The subject areas of study are:

1. Physical Geography where learners are expected to:

1. Develop knowledge and understanding of the earth, its relief and selected geomorphic processes which are ever-modifying it.
2. Analyse atmospheric processes and the resultant weather patterns, climate; and how these impact life and development on earth.
3. Demonstrate skills of collecting, analysing and communicating data about geomorphic and atmospheric processes and their impact on physical and human environments at different scales using a range of sources, geographic methods, techniques and tools.
4. Appreciate the need for and methods which can be used to sustainably manage natural environments to benefit human beings and entire ecosystems to which they belong.

2. Human Geography where learners are expected to:

1. Investigate the intricate relationships between population change in space and time, and the ability of human beings to exploit and moblise resources in their environment to sustain their lives.
2. Develop knowledge and understanding of world development, the natural, social, political and historical factors accountable for disparities in development especially between the global North and South.
3. Apply a range of geographic methods, techniques and tools to collect, manage, interpret and communicate data relating to the various aspects of human geography.
4. Appreciate the need for wise management of production systems such as the agricultural, industrial and energy sectors as the failure to manage them wisely can breed far reaching effects for humans.

**Section 1.5: Scope and Sequence Chart**

| **Class/Term** | **Topic** | **Subtopic** | | **Periods** |
| --- | --- | --- | --- | --- |
| S.5 Term 1 | 1. The Structure of the Earth | 1.1 | The External structure of the Earth | 6 |
| 1.2 | The Internal Structure of the Earth | 6 |
| 1. 2. The Origin of Continents and Ocean basins | 2.1 | The Continental Drift Theory | 20 |
| 2.2 | Effect of Continental drift on relief and land forms | 14 |
| 1. World Development | 3.1 | What is development? | 4 |
| 3.2 | Indicators of development | 8 |
| 3.3 | Causes of inequalities in world development | 2 |
| 3.4 | Sustainable development and how it can be achieved | 4 |
| **TOTAL** | |  |  | **64** |
| S.5 Term 2 | 1. Agriculture and Development | 4.1 | The role of agriculture in development | 8 |
| 4.2 | Subsistence Agriculture | 24 |
| 4.3 | Commercial agriculture | 16 |
| 4.4 | Agricultural modernization: The Green Revolution | 9 |
| 1. Soil Development and Management | 5.1 | Components and properties of soil | 12 |
| 5.2 | Soil Formation | 8 |
| 5.3 | Soil Profile and soil catena | 12 |
| 5.4 | Soil Productivity | 9 |
| 5.5 | Soil Degradation and Conservation | 10 |
| **TOTAL** | |  |  | **108** |
| S.5 Term 3 | 1. Population and development | 6.1 | Population distribution and Density of population | 8 |
| 6.2 | Growth and size | 6 |
| 6.3 | Population structure | 8 |
| 6.4 | Population migrations | 16 |
| 1. Drainage and Work of Rivers on landscape | 7.1 | The Drainage system of Uganda | 4 |
| 7.2 | Evolution of Uganda’s drainage | 8 |
| 7.3 | The work of Rivers on landscape | 16 |
| 7.4 | Importance of drainage in development | 4 |
| 1. Energy Production | 8.1 | Major Energy Resources | 6 |
| 8.2 | World Energy Production and Consumption | 12 |
| 8.3 | Factors affecting development of Energy resources | 6 |
| 8.4 | Environmental impacts of Energy production | 8 |
| 8.5 | Sustainable utilisation of energy resources | 6 |
| **TOTAL** | |  |  | **108** |
| S6. Term1 | 1. Slope Development | 9.1 | Types of slopes |  |
| 9.2 | Theories of slope development |  |
| 9.3 | Factors influencing slope development |  |
| 9.3 | Mass wasting |  |
| 1. Problems of Food Supply | 10.1 | Trends in world food Supply |  |
| 10.2 | Food shortage in Developing Countries |  |
| 10.3 | Addressing food shortages |  |
| 1. Settlement | 11.1 | Meaning, Types and Patterns of settlement |  |
| 11.2 | Rural Settlement |  |
| 11.3 | Urban Settlement |  |
| 11.4 | Problems of urban growth |  |
| 11.5 | Land use planning and control of urban growth |  |
| S.6 Term 2 | 1. Lake and Sea Coasts | 12.1 | Waves and their nature |  |
| 12.2 | Landforms due to wave action along the coast |  |
| 12.3 | Lake and Sea level changes |  |
| 12.4 | Influence of coasts on human activities |  |
| 1. Climatology and Meteorology | 14.1 | Introduction to Climatology and Meteorology |  |
| 14.2 | Humidity |  |
| 14.3 | Solar Radiation |  |
| 14.4 | Atmospheric pressure & Wind systems |  |
| 14.5 | Cyclones and Anticyclones |  |
| 14.6 | Ocean Currents |  |
| 14.7 | The Climate of Uganda |  |
| 14.8 | Trends and Impact of climate change |  |
| S.6 Term 3 | 1. Utlisation and conservation of natural resources | 14.1 | The concept of a resource |  |
| 14.4 | Sustainable utilization of wetlands |  |
| 14.3 | Environmental Degradation and Conservation |  |

**SECTION 2: THE DETAILED SYLLABUS**

**Senior Five Term One**

**Topic 1:** The Structure of the Earth **12 Periods**

**Topic competency:** The learner appreciates the significance of the structure of the Earth in understanding the formation of structural landforms and resources associated with them by examining the properties of each layer and how they influence geomorphic processes and people’s ways of life in order to better understand the geologic foundation of human development.

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| **Learning Outcomes**  The learner should be able to: | **Suggested Teaching - learning Activities** | **Sample Assessment strategy** |
| 1. Analyse the earth by describing what it is, its shape, and external appearance as a foundation for investigating its interior(u) | **The External structure of the earth**   * Through questioning, guide learners to revise the nature of the earth which they learnt at Lower secondary. * In groups, learners study the globe or a drawn 3-D model of the earth, and use the information gathered to describe the external/outer structure of the earth. * Groups make presentations and their ideas feed into a whole class discussion. * Guide learners to reach an agreement on the composition of the external/outer structure of the earth: Lithosphere, Hydrosphere, Biosphere, and Atmosphere. | * Observe learners as they work in groups focussing on individual participation, contribution to group ideas and ability to work with persistence. * Listen to learners’ submissions about the nature of the earth. Evaluate their level of awareness and how logical their ideas are in relation to the four main external layers of the earth. * During presentations, probe groups to explain their ideas noting how well group members can work together to defend group positions using evidence from the globe or 3-D model. |
| 1. Assess the significance of the internal properties of the earth in understanding the evolution of structural landforms and resources (v/a) | **The internal structure of the Earth**   * Learners brainstorm about how scientists can find out about the interior of the earth. * In groups, learners analyse texts and maps or watch videos about earth quakes, faulting and volcanic eruptions to find clues about the interior of the earth. They make write-ups and share their findings through presentations. * Learners make a cross section of an avocado pear, or study a cross section through the earth; they draw diagrams to show the internal structure of the earth and write notes to describe it. * Learners discuss the properties of each layer and how those properties influence the occurrence of tectonic forces and formation of tectonic landforms e.g. volcanicity, faulting, folding, warping. * Learners investigate the relationship between the internal structure of the earth and the evolution of some of the natural resources on earth. * In groups, learners create a concept map linking the properties of the internal layers of the earth, geomorphic processes; and their impacts on humans. Groups share their concept maps for further discussion. | * Observe learners working in groups. Note how effectively they interact, sort and analyse information. * Ask learners to explain their ideas about using the: pattern of shock waves produced by earthquakes, material erupted by volcanoes, meteorites, the earth’s magnetic field and other clues to find out about the interior of the earth. Assess their ability to talk confidently and explain ideas clearly. * Assess learners’ diagrams for accuracy and coherence of information. * Evaluate learners’ concept maps focusing on how well and logically they bring out the relationship between the nature of the internal layers of the earth and the formation of tectonic landforms; and the natural resources associated with the land forms. |

**Topic 2:** The Origin of Continents and Ocean Basins **34 Periods**

**Topic competency:** The learner demonstrates appreciation of the importance of theories in understanding geomorphic concepts through appraising them basing on scientific evidence; in order to inform further geographical inquiry and problem-solving.

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| **Learning Outcomes**  The learner should be able to: | **Suggested Learning Activities** | **Sample Assessment strategy** |
| 1. Evaluate the Continental drift theory using scientific evidence (u, v/a) | **The Continental Drift theory**   * Learners study an atlas map/wall map/textbook map of the world to find out what continents and ocean basins are. Learners discuss and reach an agreement on the meaning of continents and ocean basins. * Demonstrate the drifting of continents using jig-saw pieces of the world map or other methods. * Learners write brief notes to explain what they observe; and to explain what they understand by continental drift. * Learners read texts or watch a video on continental drift to find out more about the concept. * Learners brainstorm and suggest the forces responsible for the drifting of continents. * Probe learners to elicit more responses and to foster deeper reasoning and learning. * Provide a world map or maps with evidence of continental drift and guide learners to explore the evidence. Individually, learners write down their findings; and share in a whole class discussion. * Using modelling techniques, sketch maps and diagrams, help learners to understand the key evidence of continental drift by emphasising ideas based on natural sciences e.g. Geology, Geophysics, Botany, and Palaeoclimatology. * Individually, learners form their own opinions and conclusions about the various observable similarities and possible fittings between nearby continents and the associated islands. | * Observe learners as they discuss the meaning of continents and ocean basins. Note their ability to construct meanings from investigations, and how well they respect divergent views. * Probe learners to explain their submissions on the forces responsible for the drifting of continents focusing on their ability to relate forces to the properties of the core, mantle and the crust. * Evaluate learners’ findings about evidence of continental drift for accuracy and coherence of information; and ability to use relevant sketch maps and diagrams to illustrate their ideas. |
| 1. Predict the future shapes, sizes and positions of world continents and landforms basing on the knowledge of the continental drift theory (v/a) 2. Demonstrate appreciation of the role of scientific inquiry in understanding geomorphic processes and their influence on the way we live on earth (u, v/a) | **Effects of Continental drift on relief and landscape**   * In groups, learners analyse texts about, and photographs of, the effects of continental drift on relief and landforms. Groups document how continental drift contributed to the formation of these features, draw diagrams to illustrate their formation, and describe their characteristics; citing examples from Uganda, east Africa and other parts of the world. * Groups present their findings to feed into a whole class discussion. * Focus learners to understand the relationship between the movement of continents and the formation of structural landforms: faulting, warping, folding and igneous activity. * Using ideas about the movement of continents, and evidence of continental drift, learners speculate about the future shapes, sizes, and positions of world continents. They write down their ideas, and draw maps to illustrate them. * In groups, learners create a concept map linking continental drift, geomorphic processes; resultant landforms and their possible impacts on human activities. Group concept maps feed into a whole class discussion. * Learners research two case studies of major landforms related to continental drift and how they affect human activities and development, e.g. the Himalayas, Atlas Ranges, the Great African Rift valley, the Mid-Atlantic Oceanic ridge, etc. They write a report and propose strategies for minimising natural hazards to communities living on or near the landforms. | * Evaluate group presentations about the effects of continental drift on relief and landscape noting how well they bring out the cause-effect relationship relevant to the context. * Ask learners to explain their predictions about the future shapes, sizes, and positions of world continents. Evaluate how their predictions build on what has been learnt. * Assess learners’ maps and diagrams illustrating future continents for creativity, originality and understanding of continental drift. |

**Topic 3:** World Development **20 Periods**

**Topic competency:** The learner demonstrates understanding of development by analysing spatial development patterns, development priorities and factors influencing development; and proposes interventions to address country or regional development disparities.

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| **Learning Outcomes**  The learner should be able to: | **Suggested Learning Activities** | **Sample Assessment strategy** |
| 1. Form opinions about world development pattern through analysing statistics, maps, and other relevant information (s, v/a) | **What is development?**   * Learners brainstorm about the meaning of development. * In groups, learners analyse the map showing the pattern of world development, write down their findings, and make presentations. Group ideas feed into a whole class discussion. * Guide learners to agree on the meaning of development and what constitutes development. | * Listen to learners’ submissions noting their ability to use appropriate terms in relation to development. * Observe learners as they discuss in groups, focussing on team work and ability to express their ideas logically and fluently. * Probe learners to explain their views about word development focussing on their ability to look for patterns and make generalisations. |
| 1. Analyse the level of development in the local area and home country by applying some of the indicators used to measure development in order to appreciate community and government efforts at improving the lives of the people (s, v/a) 2. Predict the future trend of development in Uganda and other countries using relevant information (v/a) | **Indicators of development**   * In groups, learners discuss the things they use to describe development in their community, and country. * Groups analyse texts, statistics and graphs about development to verify their ideas about indicators used to measure development. * Learners discuss why Uganda and other African countries are said to be developing or less developed countries. * Using statistics and maps, learners critically appraise the existing measures of development i.e. Gross National Product per capita (GNP) and the Human Development Index (HDI). * In a whole class discussion, learners suggest suitable development strategies for Uganda, and or Africa to achieve fast overall human development. * Learners speculate about Uganda’s or other country’s level of development in 20 years’ time basing on her current development indicators and policies. | * Observe learners as they discuss why Uganda and other African countries are said to be developing or less developed countries. Note their ability to relate the ranking to the UN development indicators and to argue out issues objectively. * Observe learners as they analyse statistics, maps and graphs focusing on how well they interpret and interrogate mathematical data in order to derive meanings and conclusions. * In conversation, ask learners to defend their submissions about suitable development strategies noting their ability to use evidence to support their arguments. * Assess learners’ write-ups about the future level of development for Uganda or other country for logical flow of ideas and ability to make generalisations following an existing pattern. |
| 1. Analyse the conditions which may slow down or totally affect holistic regional or national development as a basis for planning proper management and utilisation of resources (v/a) | **Causes of inequalities in world development**   * In groups, learners discuss why development disparities exist within their own country and between countries and regions; and share their ideas using a gallery walk. * Through questioning, help learners to understand the Economic, Social, Political and Environmental factors that may, individually or collectively, lead to inequalities in development. Explain their ideas further for clarity. | * Observe learners as they account for development disparities within their own countries and between countries and regions. Pay attention to how they relate the disparities to historical and current factors. * As learners respond to oral questions, assess their ability to articulate ideas logically, confidently and clearly. |
| 1. Propose a suitable development strategy for Uganda through applying the knowledge of sustainable development models (V/a) | **Sustainable development and how it can be achieved**   * Learners search the Internet or text books or other sources for information about sustainable development. They write their findings, share reports and critique each other’s work. As a class, learners agree on the meaning of sustainable development. * Guide learners to explore how sustainable development leads to improvement in peoples: * standard of living for the current and future generations, and * quality of life; including a health environment. * They write down key points from the discussion and explanation. * Individually, learners research case studied: one from a developing country (e.g. Ladakh-Northern India) and the other from a developed country to analyse successful sustainable development initiatives. Individuals share their findings in a whole class discussion. * Learners simulate a sustainable development summit where they take on roles as stakeholders, and discuss policies and trade-offs for achieving sustainable development goals (SDGs) in Africa. * *Learners carry out a project on assisting their home district or country to achieve sustainable development.* | * Observe learners as they present and critique each other’s work focusing on their ability to accept feedback and appreciate criticism. * Evaluate learners’ research reports for use of credible sources and suitability of the chosen case studies. * Ask learners to explain the lessons their communities and Uganda can learn from the two case studies. Note their ability to sort and analyse information; and to logically relate case studies to local contexts. * Assess learners’ project work at every stage of development paying special attention to their ability to: * Suggest and develop solutions to problems, * Try innovative alternatives, * Evaluate different solutions, * Use a range of media to communicate ideas * Take responsibility for own learning |

**Senior Five Term Two**

**Topic 4:** Agriculture and development **57** **Periods**

**Topic competency:** The learner appreciates agriculture as an economic activity and a way of life by examining its types, impact on the environment, and contribution to development at different scales; and selects appropriate types and techniques of farming for a certain community or country to promote development.

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| **Learning Outcomes**  The learner should be able to: | **Suggested Learning Activities** | **Sample Assessment strategy** |
| 1. Evaluate plans and strategies aimed at promoting agriculture in Uganda and other developing counties (v/a) | **The role of agriculture in development**   * Through questioning, guide learners to understand the meaning and broad types of agriculture: Arable and livestock farming. * In groups, learners identify local agricultural practices they are familiar with. Groups discuss and identify the contribution of agriculture to the development of Uganda; both pros and cons. * Groups make presentations and their ideas feed into a whole class discussion. * Learners analyse 2 case studies: Developing and Developed countries to compare the importance of agriculture in their economies. They write and present reports. * Learners debate the motion: “*African countries should direct less of their resources and efforts to agriculture if they are to realise fast economic development and improved state of human welfare*.” | * Probe learners to explain their ideas on the meaning and types of agriculture. Note how well they can work as a team to generate ideas. * Observe learners during group presentations, focusing on clarity, confidence, and ability to respond to questions. * Assess learners’ reports about case studies for accuracy of information, coherence of ideas and maturity of analysis * Observe learners during the debate noting their ability to defend their points of view and respect for views at variance. |
| 1. Demonstrate understanding of subsistence farming by articulating its types, characteristics and problems affecting it (u) | **Subsistence Agriculture**   * Through questioning, guide learners to explore the types of crops and animals raised by farmers in their home district and other parts of Uganda; and the main reasons for raising each of them. Ask: Do majority of the farmers in Uganda grow crops and keep animals for home use or for sale? * In groups, learners analyse texts, photographs and, if possible, videos about subsistence farming. They explore the main types and characteristics of subsistence farming; and make presentations to share their findings. * Learners examine climate statistics and other information about typical farmers’ annual activities in a subsistence farming community, and draw a Circular graph or Farmer’s calendar to represent it. * Learners interpret the farmers’ calendar they have drawn pointing out the salient features of farming in the area. * Guide learners to reach an agreement on the meaning and general characteristics of subsistence farming. * Individually, learners summarise key ideas about subsistence farming in their note books. | * Observe learners as they present their responses, focusing on their ability to talk confidently and explain ideas clearly. * Observe learners as they engage with texts, photographs and videos focusing on their ability to sort and analyse information. * Assess learners’ statistical drawings for ability to use numbers and measurements accurately. * Listen to learners’ description of farming activities in the subsistence farming community. Note how well they can relate farm activities to the weather pattern. |
| **Problems facing subsistence agriculture**   * Learners carry out a fieldwork study to investigate subsistence farming in the local area. Using a Problem Tree Analysis, they identify key problems faced by subsistence farmers in the area and make a report. Individuals present their reports which culminate into a whole class discussion. * In groups, learners analyse textbook extracts, photographs, newspaper articles and other sources to further their understanding of problems and challenges affecting subsistence farming and make write-ups. * Through discussion, guide learners to harmonise their findings from the primary and secondary sources to concretize their understanding of problems facing subsistence farming. | * Observe learners as they collect data in the field. Note their ability to apply data collection techniques and to work independently with persistence * In conversation, challenge learners to explain problems identified. Note how deep their understanding is and how logical their explanation is. * Evaluate learners’ Problem Tree analyses for accuracy and connection to local realities. * Assess learners’ write- ups for richness of information and depth of explanation pointing out the cause-and-effect relationship. |
| 1. Evaluate policies and strategies aimed improving subsistence agriculture in Uganda and other countries in order to select the most feasible options (v/a) 2. Design a plan for improving subsistence agriculture in a locality by addressing the problems and challenges faced by farmers (u, s, gs) | **Improving Subsistence agriculture**   * In groups, learners analyse digital or printed extracts o policies and strategies that have been put in place to improve subsistence agriculture in Uganda e.g. National Agricultural Advisory Services Programme (NAADS), Operation Wealth Creation (OWC), National Agriculture Policy, Agro industrialisation Policy, The 4-Acre Development Model etc. * Individually, learners carry out library or Internet research to analyse two case studies of countries or regions with successful interventions in improving subsistence farming; and compare their findings with efforts so far made in Uganda. * Learners summarise lessons which Uganda can learn from the case study areas. * Learners design a clean sheet plan or manifesto for addressing the problems and challenges faced by farmers in the local community or other parts of Uganda. | * Observe learners in groups as they analyse policies and strategies aimed improving subsistence agriculture in Uganda and other countries. Note their ability to interrogate and appraise government policies and interventions. * In conversation, ask learners to explain the lessons Uganda can learn from case study areas; noting how well they relate lessons to challenges facing the Uganda subsistence farmers. * Evaluate learners’ plan or manifesto for addressing the problems and challenges faced by farmers for ability to identify problems and ways forward; originality and feasibility. |
| 1. Propose a suitable type of commercial agriculture to be adopted in a given locality basing on the prevailing conditions so as to promote societal transformation (u, gs, v/a) | **Commercial Agriculture**   * Learners brainstorm about the crops, animals and animal products in Uganda which are produced purposely for sale; both to local and external markets. * In groups, learners draw a table to divide the crops and crop products into traditional and non-traditional cash crops. * Collaboratively, learners find an answer to the question “Whose traditional cash crops?” * Through explanation guide learners to understand the origin of the idea of traditional cash crops. * Learners study statistics of Uganda’s agricultural exports, for at least the past 10 years, and draw graphs to analyse the trends and relative importance of the export items. * Through questioning, guide learners to understand and agree on the meaning of commercial agriculture. * Learners analyse texts, photographs, documentaries and topographical survey maps from selected commercial farming areas to investigate the types and characteristics of; and factors favouring commercial agriculture. * Through explanation, help learners to understand the difference between intensive commercial and extensive commercial agriculture; and their respective sub-types. Challenge learners to look for examples of each in Uganda and other parts of the world.   **Advantages and disadvantages of commercial agriculture**   * In pairs, learners carry out library or internet research on advantages and disadvantages of commercial agriculture, make a report and present their findings the rest of the class. Pair ideas feed into a whole class discussion. * Guide learners to reach an agreement on the advantages and disadvantages of commercial agriculture. Pairs make amendments on their reports. * *Learners carry out a project on promoting commercial farming in a chosen area in order to improve the welfare of the local community.* | * Assess research reports for comprehensiveness and the relevance of suggested commercial agriculture types. * Observe planning and presentation sessions, focusing on the depth of analysis and clarity of arguments. * Evaluate maps and written proposals for alignment with the prevailing conditions of the selected locality. * Observe learners as they make presentations focusing on their ability to talk confidently and explain ideas clearly. * Observe learners during the discussion noting their ability to listen attentively and with comprehension and to accept criticism. * Assess pair reports for accuracy of geographic facts, depth of understanding and logical flow of ideas. * Assess learners’ project work at every stage of development paying special attention to their ability to: * Identify problems and ways forward, * Evaluate different solutions, * Use a range of media to communicate ideas. |
| 1. Evaluate programs and policies aimed at modernising agriculture in Uganda and other countries in order to make informed decisions about transforming farming communities (v/a) 2. Form opinions about the adoption of western-type farming techniques to improve agricultural productivity in Uganda and other developing countries (v/a) | **Agricultural Modernisation**   * In groups, learners analyse photographs, text extracts, newspaper articles and other sources of information about modern agriculture to identify its salient features. Groups share their ideas using the jig saw technique. * In a whole class discussion, learners explain what they understand by modern agriculture. They cite examples of modern agricultural enterprises in Uganda. * In groups, learners analyse some policies and programmes aimed at modernising agriculture in Uganda e.g. Plan for the Modernization of Agriculture (PMA), The Agriculture Sector Strategic Plan (ASSP), etc. * They summarise the steps, resources, and stakeholders needed to modernise agriculture; and evaluate the success realised by each policy or programme.   Groups share their ideas in a whole class discussion.   * Individually, learners carry out library or Internet research to analyse the ***Green Revolution*** as a scientific and technological intervention in Agriculture. They summarise lessons which Uganda can learn from the countries participating in this revolution. * Learners present their research reports and critique each other’s work. | * Observe learners as they engage with the different sources of information about modern agriculture. Focus on how well they interpret photographs, and sort and analyse secondary information. * Probe learners as they explain the meaning of modern agriculture, noting how well they can link their explanation to the farming methods used and salient characteristics of that type of agriculture. * Observe learners during class discussions focusing on accuracy and logical flow of ideas. * Evaluate learners research reports about the green revolution for depth of analysis, accuracy of facts, and ability to relate experiences of the countries participating in the green revolution to the local context. |

**Topic 5:**  Soil Development and Management **51** **Periods**

**Topic competency:** The learner proposes feasible ways of using and managing soil through gathering and analysing information about soil properties, formation and quality in order to promote sustainable development.

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| **Learning Outcomes**  The learner should be able to: | **Suggested Learning Activities** | **Sample Assessment strategy** |
| 1. Analyse the significance of the constituents and properties of soil to land use and development (u, v/a) | **Components and Properties of soil**   * Learners brainstorm about the meaning of soil and its components. Summarise their ideas on the chalk board and guide them to agree on the meaning and components of soil. * In groups, learners analyse different soil samples to find out the components of soil. Groups draw a table to record their observations. Groups display and share their findings in a gallery walk. * Learners examine soil samples to find out the properties of soil including: structure, texture, colour, water retention, Potential hydrogen ions(pH). They record their findings and make presentations. * Learners carry out a fieldwork study of the local area to investigate the types and properties of soil; they draw transects and other diagrams to illustrate the influence of soil on land use in the area. * Individually, learners carry out library or Internet research about soil, its components and properties. They use diagrams and notes to illustrate their findings. | * Observe learners as they collaboratively analyse soil properties. * Assign research papers on topics related to soil properties and their significance. * Have students present their group projects or research findings. Assess presentations based on clarity, content, and engagement. |
| 1. Analyse soil formation in a certain locality through examining soil forming processes, factors influencing soil formation and their relative significance (v/a) | **Soil Formation**   * Through questioning, guide learners to revise rock weathering as one of the soil forming processes. * In groups, learners analyse texts about the processes of soil formation, make notes with illustrations and present their ideas in a whole class discussion. Groups critique each other’s work and make amendments. * Guide learners to understand the processes of soil formation through explaining further where necessary, using videos or other illustrations and pointing out key facts for emphasis. | * Evaluate learners' fieldwork through detailed field reports. Assess reports based on accuracy, comprehensiveness, and analysis of collected data, including illustrations, maps, and photographs in the reports. * Assess learners' understanding through reports on their experiments. Use rubrics to evaluate the scientific method, accuracy of results, and clarity of conclusions. Encourage students to discuss their findings in class. * Have learners present their project findings to the class. Assess presentations based on content, organization, and delivery. Use peer reviews to provide constructive feedback. |
| **Factors influencing Soil formation**   * Learners analyse soil samples e.g. clay, sand, loam/red earth; identify their differences and suggest possible reasons for the differences observed. * In groups or pairs, learners analyse textbook content, extracts and other sources of information about factors influencing soil formation. Groups write brief notes and make presentations. Group ideas feed into a class discussion. * Learners conduct a fieldwork study of the local area to investigate soil types, properties, factors influencing soil formation and soil forming processes taking place in the area. They make reports and share their findings through whole class presentations. * Guide learners to summarise the main soil types and their respective properties and how these reflect the soil forming processes and factors influencing soil formation. | * Observe learners as they analyse soil samples. Pay special attention to their ability to carry out a scientific investigation and how well they pay attention to details. |
| 1. Deduce the arrangement of soil layers in a given area using information from secondary sources and field observations in order to determine possible developments that can be carried out in the area (s, gs) 2. Infer suitable land use options for certain areas using the knowledge of soil profile and soil catena (v/a) | **The Soil Profile**   * Learners visit a roadside cutting or a graded construction site, or a quarry to investigate a soil profile. They draw a diagram to illustrate what they observe. Challenge them to suggest possible names for the different layers shown on the diagram. Learners display their diagrams and critique each other’s work. * Collaboratively, learners explain what they understand by a soil profile. * Learners study texts/ extracts/photographs/a chalk board diagram or watch a video about a fully developed idealised soil profile. They draw and annotate a diagram of the profile and compare it with the field sketch they drew. * Guide learners to understand that the three- layer profile seen in the field is oversimplified and may vary with locations and time. * In groups, learners carry out library or internet research to compare soil profiles of two contrasting climatic regions. They look for reasons accountable for the differences in the soil profiles. * Through questioning and discussion, guide learners to explore the influence of the soil profile on land use and development. * Learners carry out a project to determine soil profile of a location(s) using on topographic survey maps, photographs, line transects or field observations; and how such a profile can influence land use and development.   **The Soil Catena**   * Learners study a text book or chalk board diagram of a soil catena and copy it into their notebooks. They analyse the arrangement of soils in the catena and suggest possible reasons for the variations in soil types along the same slope. * Learners search the Geography or Language dictionary for the meaning of catena. They relate the dictionary meaning to soils. Learners explain what they understand by a soil catena. * Learners conduct a field work study of a slope from the valley to the hill top to investigate the arrangement of soil along a slope. They draw a line transect and annotate it to illustrate the relationship between slope, soil types and land use. * Learners display their field findings and diagrams in the classroom and conduct a gallery walk to critique each other’s work. | * Encourage learners to share what they have reflected with their peers. * Ask learners to infer likely soil arrangements based on the map features. * Learners present a written explanation or annotated map showing hypothesized soil arrangements. Assessment should target logical reasoning, use of map features, and clarity of explanation. * In a classroom or school yard, simulate a line transect with labeled markers representing different soil types and topographic features. Students record observations and deduce soil arrangements. Guide learners to draw a transect diagram or table summarising their findings. * Assess completeness of recorded data, accuracy in representing soil layers, and logical interpretation. * Assess a completed field report including, annotated diagrams of soil layers. Written analysis linking soil composition to topographic and environmental factors. Focus on accuracy of observations, quality of diagrams, relevance of analysis, and teamwork. |
| 1. Evaluate the factors affecting soil productivity and propose sustainable practices to enhance soil quality in a given area based on its properties, formation, and use (k, u, s, v) | **Soil Productivity**   * Provide learners with a case study of a specific area, including data on soil type, properties and current land use. Guide them to investigate factors influencing soil productivity and suggest improvements. Provide resources such as soil property charts, maps, photographs, and data tables. * Visit a nearby farm or area with varied soil use. Guide learners to collect soil samples, observe land use practices, and identify factors impacting productivity. Focus on hands-on exploration of soil characteristics and their influence on productivity. * Conduct classroom experiments such as testing soil pH, texture, and water retention. Help learners understand how physical and chemical properties affect soil productivity. * In groups, students analyse different soil profiles and propose solutions for improving soil fertility * Show videos or info graphics on sustainable soil management practices. | * Learners design a soil management plan for a given area, considering factors like soil type, climate, and land use. Learners write a report or make a presentation reflecting: soil productivity analysis and proposed sustainable practices, giving a justification for each proposal. Assess creativity, feasibility, use of data, and clarity. * Assess learners’ fieldwork reports for accuracy of observations, logical reasoning, and connection to soil productivity. |
| 1. Propose feasible soil conservation strategies for a specific area in order to promote sustainable development through analysing the causes and effects of soil degradation (v/a) | **Soil Degradation and Conservation**   * Provide learners with a real-world case study of soil degradation. Guide learners to analyse the causes, effects, and attempted solutions. Use videos, articles, and maps of the affected areas to enhance learning. * Take students to a nearby degraded area or farmland. Have them observe visible signs of degradation and interview local land users about practices and challenges. Focus on the connection between theory and practice and real-world observations. * Simulate soil degradation processes in the classroom to help learners understand how degradation occurs and the effectiveness of conservation measures. * Divide learners into groups to research specific soil conservation techniques. Groups present their findings and recommend techniques for a given area. * Show documentaries or infographics on successful soil conservation projects to inspire learners and provide practical examples of conservation success stories. | * Learners write a report analysing the causes and impacts of soil degradation in a given area and propose conservation strategies. Assessment focus should be on depth of analysis, relevance of proposed solutions, and clarity of communication. * After a field trip, learners write a reflection on their observations of soil degradation and suggest conservation measures. Assess relevance of observations, logical proposals, and use of geographic terminology. * Observe learners during the debate about the trade-offs of soil conservation methods focusing on their ability to make evidence-based arguments, teamwork, and creativity. |

**Senior Five Term Three**

**Topic competency:**

**Topic 6:** Population and development **Periods**

**Topic competency:** The learner analyses population dynamics and their implications on development by examining spatial population distribution, growth, structure, and migration at local, regional and global levels so as to propose strategies for managing population as a key resource in development.

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| **Learning Outcomes**  The learner should be able to: | **Suggested Learning Activities** | **Sample Assessment strategy** |
| 1. Investigate the distribution and density of population using topographic survey maps, statistical data and maps to guide decision-making (s) | * **Population Distribution and Density Population** * Guide learners to use printed or hand-drawn maps (world, Africa, and Uganda) to identify and label densely and sparsely populated areas. * Groups discuss factors influencing population patterns in Uganda and globally, using case studies for comparison. * In groups, learners conduct a field study in their community to investigate population distribution and density. They count households, estimate population density, and use density maps to visualize their findings and compare local data with national trends. * Learners present their findings in class, followed by group discussions to share insights and refine understanding of population dynamics. | * Observe learners as they use printed or hand-drawn maps to identify and label population areas, focusing on how well they work in teams and collaborate * Assess the completed maps for correctness, clarity, and detail in labeling densely and sparsely populated regions. * Converse with learners to probe for understanding of the reasons behind the patterns they labeled. * Observe learners as they present their findings, focusing on clarity, confidence, use of evidence, and ability to respond to peer questions. * Evaluate presentation materials such as charts, reports for coherence, depth, and relevance to population dynamics. |
| 1. Propose ways of regulating population growth in developed and developing countries basing on statistics and other relevant knowledge (u, s, gs) | **Growth and Size**   * Provide learners with population growth data for both developed and developing countries. * In groups, learners analyse the trends, identify patterns, and compare the rates between developed and developing countries, and create a poster or presentation summarizing findings and suggesting ways to regulate growth based on the trends. Provide learners with case studies of developed and developing countries. * In groups, learners research about population control measures in a developed country and a developing country, and discuss successes, challenges, and ethical considerations for each measure. * Learners present their findings and suggest which methods are applicable or adaptable to Uganda. * Guide learners to organize a debate "Population control policies are more effective in developed countries than in developing countries." In their assigned teams, learners argue for or against the topic, citing statistics and real-world examples. * Task learners to reflect on and summarise points raised in the debate with actionable recommendations. * In pairs, learners conduct a school-based or community survey on attitudes toward family size, family planning, and population control. They use questionnaires to gather data and identify factors influencing population growth, and write reports summarizing findings and proposing locally relevant strategies for regulating growth. * Pairs present their findings for further class discussion**.** | Observe learners as they work in groups to analyse population trends in developing and developed countries, focusing on their ability collaborate, talk confidently, and sort and analyse information.  Probe learners during the discussions, presentations and debates focusing on the depth of their ideas, and ability to identify problems and ways forward.  Observe learners as they conduct community surveys, focussing on how well they work with others to generate ideas, plan and carry out investigations and work effectively in diverse teams. |
| 1. Infer the likely impact of population structure of a town/country or region on resource utilisation and people’s wellbeing(v/a) | **Population Structure**   * Learners analyse population pyramids of different countries, towns, or regions, including Uganda, and examine the shapes of the pyramids and deduce how each structure impacts resource use and wellbeing. * Learners make presentations. * Individually, learners use data on age and gender distribution in a given region or country and construct a population pyramid and analyze its implications for resources and wellbeing. * Learners conduct a simple survey within the local community to identify the population structure (e.g., many children, working-age adults, or elderly). In groups, learners interview community members about challenges and benefits associated with the local population structure, and write a report or make presentations on findings, focusing on impacts on resources like education, healthcare, and employment. * Guide learners to carry out a resource mapping exercise to enhance understanding of the link between population structure and resource distribution. Assign each group a specific resource such as water, food, healthcare. * In groups, learners map out how a specific population structure might affect the availability and use of their assigned resource. Groups present their maps, discussing potential shortages, surpluses, or inequalities. | * Observe learners as they work in groups to analyse population pyramids. Focus on how well they interact with others, look for patterns and generalisations collaboratively. * Converse with learners as they discuss and present focusing on how well they sort and analyse information, and identify problems caused by specific population structures and suggest ways forward. * Assess learners’ drawn population pyramids and write ups focusing on clarity, and depth of ideas |
| 1. Predict occurrence and impact of population migration in Uganda and other places basing on the knowledge of migrations (c) 2. Develop a plan/manifesto for regulating or promoting a certain type of population migration by applying relevant information (c) | **Population Migrations**   * Guide learners to use migration flow maps, and text extracts to track migration patterns in Uganda and globally. * In pairs, learners mark areas of high emigration and immigration and discuss reasons for these trends. * Provide learners with literature to explore historical and current migration trends, and use such to predict occurrence and impact of population migration in Uganda and other places. * Learners research examples of migration from their communities or globally, and identify challenges, benefits, and policies that regulate or promote migration. * In groups, learners select a type of migration and draft a plan to regulate or promote it. | * Observe learners as they interact with flow maps, focusing on how well they listen to each other and with comprehension; work with others to generate ideas collaboratively. * Probe learners during their discussions and presentations focusing on their ability to predict outcomes and make reasoned decisions, and plan and carry out investigations. * Observe learners as they collaboratively work in their groups, focusing on how well they interact effectively with others. * Assess learners plans and presentations focusing on clarity of ideas, and ability to evaluate different solutions |

**Topic 7:** Drainage and the work of Rivers on landscape **Periods**

**Topic competency:** The learner analyses the processes and impacts of drainage features, by examining their role in shaping landscapes, supporting ecosystems and influencing human activities in order to propose solutions for sustainable utilization resources associate with drainage.

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| **Learning Outcomes**  The learner should be able to: | **Suggested Learning Activities** | **Sample Assessment strategy** |
| 1. Demonstrate understanding of Uganda’s drainage system by using relevant maps and diagrams to illustrate it (u, s) | **The drainage system of Uganda**   * In groups or pairs, learners study a topographic map of a local or other area in Uganda to identify the drainage features in the area. Groups share their findings. * Learners analyse a wall /textbook/atlas map showing the drainage system of Uganda. They copy the map into their notebooks and label the major drainage features in the country. * Learners make brief notes to describe the drainage system of Uganda. * Learners exchange their notebooks and critic each other’s map and notes. * In groups, learners study a map showing the drainage basins in Uganda; copy the map into their notebooks, and draw a table to show the main drainage features found in each basin. * As a class, learners discuss and agree on the meaning of drainage and drainage system. |  |
| 1. Assess the role of Pleistocene earth movements in the evolution of Uganda’s drainage and resources (v/a) | **Evolution of Uganda’s drainage**   * Using a map of ancient drainage (before Pleistocene period) and the map of present drainage, leaners explore the evolution of Uganda’s drainage system. * Learners compare a map of ancient drainage (before Pleistocene period) and the map of present drainage system of Uganda and write down their findings. * Through questioning, challenge learners to suggest possible causes of the observed differences between the two drainage systems. * Learners revise the processes of uplifting and down warping covered at Lower secondary; and how they affect landscape. * Using the map of ancient drainage of Uganda and a diagram or demonstration, guide learners to explore how uplifting in western Uganda and in the Kenyan rift valley region led to down warping in central Uganda; reversal of proto rivers, and the eventual formation of Lakes Victoria, Kyoga, and others; River Nile and the associated waterfalls. * Learners copy the maps and diagrams into their notebooks; and summarise the process of down warping and stream reversal. |  |
| 1. Infer, from photographs, topographic survey maps and field observations the river channel processes taking place in an area (s) | **The work of Rivers on landscape**   * Provide photographs, topographic survey maps for learners to identify river channel processes taking place in the area. * If possible, organize a visit to a local river. Have students observe features such as erosion (undercut banks), deposition (sandbars), and transportation (floating materials) * Guide students to create a concept map linking river processes to their impacts (e.g., waterfalls, floodplains, deltas). * Where possible Show learners animations or videos of rivers in action to illustrate the dynamic processes ask them to document their findings and make presentations | * Converse with the learners, about how a sustainable project would be and share details of such a project report. * Assess learners’ report basing on; analysis of the drainage feature and its resource potential plans for aquaculture or eco-tourism activities environmental impact assessment, financial projections and marketing strategies community engagement initiatives |
| 1. Analyse the actual and potential resources associated with the drainage system of Uganda and other countries or regions(v/a) 2. Develop a plan for exploiting the resource potential presented by a local drainage feature by applying relevant knowledge and skills in order to guide sustainable development (s, gs) | **Importance of drainage in development**   * In groups, learners conduct a fieldwork study of a local drainage feature or features to investigate their environmental, cultural and economic importance; and write reports. * Groups present their findings and their ideas feed into a whole class discussion. * Learners analyse photographs of human activities at drainage features or carry out internet/library research find out the resources associated with, and importance of drainage features in development; and make reports. * Learners carry out research to analyse two case studies of major drainage features and their influence on the development of the country, counties or region where they are found; and challenges associated with harnessing them for development. They write reports and present their findings * *Learners design and execute a project on the sustainable exploitation of a drainage feature in their locality in regard to its resource potential, make a report and share with the rest of the class.* | Strategies missing here |

**Senior Six Term One**

**Topic 8:** Energy Production **Periods**

**Topic competency:** The learner demonstrates understanding of the dynamics of energy production and consumption through assessing the efficiency and viability of the different sources and forms of energy; and proposes viable forms of energy to be adopted in a region or country so as to balance energy use and environmental stewardship.

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| **Learning Outcomes**  The learner should be able to: | **Suggested Learning Activities** | **Sample Assessment strategy** |
| 1. Demonstrate understanding of energy resources and their spatial distribution (u) | **Major energy Resources**   * Guide learners to use maps (e.g., global, regional, and Uganda maps) to locate major energy resources such as hydroelectric power stations, oil fields, and solar farms. * In groups, learners classify energy resources into renewable and non-renewable and discuss their spatial distribution. * Assign a research task on factors influencing the distribution of energy resources in Uganda and globally, followed by presentations. | * Observe learners as they collaboratively analyze maps, focusing on accuracy and teamwork. * Converse with learners during group discussions to assess understanding of factors influencing spatial distribution. * Evaluate presentations and maps for clarity, accuracy, and relevance. |
| 1. Analyse, using statistical methods, trends of energy production and consumption in Uganda and other countries so as to make informed decisions about energy resources (s) 2. Compare and contrast energy production and consumption in countries at different levels of development (v/a) | **World energy Production and Consumption**   * Provide learners with statistical data (graphs, charts, or tables) on energy production and consumption in Uganda, developing, and developed countries. * Guide learners to identify trends and patterns in the data, calculate percentages, and make predictions. * Task groups with creating comparative bar charts or line graphs showing trends over time and discussing implications for energy policies. | * Observe learners’ ability to manipulate and interpret data during group work. * Converse with learners to probe their conclusions and predictions about future trends. * Evaluate charts and written analyses for systematic presentation, accuracy, and relevance. |
| 1. Evaluate policies and strategies aimed at ensuring access to sustainable sources of energy (v/a) | **Factors affecting development of energy resources**   * Groups research energy policies like Uganda’s Renewable Energy Policy or global initiatives (e.g., Paris Agreement). * Organize a debate on the effectiveness of local vs. global strategies for sustainable energy access. * Learners draft policy recommendations for improving energy access in Uganda.   **Environmental Impacts of Energy Production**  Conduct fieldwork to observe local energy projects, assess their environmental impacts, and suggest mitigation strategies. | * **Assessment strategies missing** |
| 1. Evaluate policies and strategies aimed at ensuring access to sustainable sources of energy (v/a) 2. Argue out the case for sustainable utilisation of energy resources at local, regional and global scales (v/a) | **Sustainable Utilisation of Energy resources**   * Assign groups to research and create case studies comparing energy production and consumption in a developed (e.g., USA) and a developing country (e.g., Uganda). * Facilitate a class discussion to highlight differences in access, technology, and policy. * Learners prepare a comparative table summarizing findings. | * Observe group interactions to assess their ability to collaborate and synthesize information. * Converse during presentations to evaluate their understanding of differences in energy production and consumption. * Evaluate comparative tables for comprehensiveness, accuracy, and depth of analysis. |

**Topic 9:** Slope development **Periods**

**Topic competency:**

The learner analyses spatial variations of slope processes by examining case studies, interpreting graphic representations, and using field data to assess their impacts on landscape, ecosystems, and human activities; and proposes sustainable strategies for managing slope-related hazards to ensure environmental protection and safe land use.

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| **Learning Outcomes**  The learner should be able to: | **Suggested Learning Activities** | **Sample Assessment strategy** |
| 1. Assess the influence of slope development on the physical environment and human activities (u) | **Theories of slope development**   * Use diagrams, animations, or models to illustrate theories of slope development (e.g., Davis’s cycle of erosion, Penck’s theory, and King’s slope replacement model) to help learners visualise and understand complex theoretical concepts. Use multimedia presentations or interactive whiteboard illustrations. * Provide learners with examples of landscapes shaped by different slope development theories and guide them to analyse how each theory applies to the observed features; using resources such as photos, maps, and scholarly articles. * Guide learners to Visit a local slope or landform to observe and document features, hypothesise the processes at work, and relate their findings to slope development theories. * Divide students into groups and assign each a slope development theory. Groups research their theory, create diagrams, and present their findings to the class. * Provide unlabelled diagrams or cross-sections of slopes. Guide learners to identify the processes depicted and match them to the relevant theories of slope development. * Organize a debate where students argue for or against the applicability of different slope development theories in specific environments (humid vs. arid). * Pose a problem scenario, such as predicting slope evolution in an area prone to erosion. Students propose solutions based on their understanding of slope development theories. | * Guide learners to write a report comparing at least two slope development theories and evaluating their relevance to a specific landform. Assess depth of research, clarity of comparisons, use of evidence, and relevance to the landform. * Guide learners to draw diagrams to represent slope development theories and explain them. Assess accuracy, clarity, and ability to link the diagram to the theory. * Given a case study of a landscape, learners identify which slope development theory applies and justify their reasoning. * Assess logical reasoning, application of theory, and clarity of explanation. * Learners document observations from a local slope, relate these to slope development theories, and explain the processes shaping the slope. Assess accuracy of observations, relevance to theory, and completeness of the report. * Assessment Criteria: Logical structure, accuracy, and depth of connections. |
| 1. Appraise programs and actions aimed at mitigating and responding to occurrence of mass wasting in the highland areas of Uganda and the rest of east Africa (u, v/a) | **Types and Processes of Mass Wasting**   * Use documentaries, YouTube videos, or GIS visualizations of mass wasting events to show different types of mass wasting processes; to provide a visual understanding of the processes and their distinguishing features. * Take learners to a site where evidence of mass wasting (e.g., scars from landslides or talus slopes) is visible. Have them document features and processes through sketches and notes. * Divide learners into groups, with each group researching a specific type of mass wasting (e.g., creep, slumping, debris flow). Groups create diagrams and present their findings. * Provide diagrams of slopes showing different mass wasting processes. Students identify and explain each process. * Learners role-play as geologists or environmental managers tasked with assessing mass wasting risks in a hypothetical area and proposing mitigation strategies. * Present case studies of significant mass wasting events (e.g., the Oso landslide in the USA or mudslides in Sierra Leone). Learners analyse the causes, effects, and response measures. * Conduct an experiment simulating mass wasting using sand, soil, water, and inclined trays to model different processes to demonstrate how factors like slope angle and moisture content influence mass wasting. | * Students write a report on a field trip documenting observed mass wasting processes, their types, and contributing factors. Assess detail of observations, use of geographic terminology, and linkage to mass wasting processes. * Learners draw labelled diagrams illustrating different types of mass wasting and explain the processes involved. Assess Clarity, accuracy, and depth of explanation. * Given a case study of a mass wasting event, learners analyse the causes, effects, and responses, then propose mitigation strategies. Assess quality of analysis, use of evidence, and creativity of proposals. * After the role-play, learners write a reflection on their proposed strategies for managing mass wasting risks and the challenges faced. Assess depth of insight, logical reasoning, and connection to real-world scenarios. * Organise a debate on the question, "Should communities at high risk of mass wasting relocate or focus on mitigation strategies?" Assess depth of arguments, use of evidence, and teamwork.   After conducting a mass wasting simulation experiment, students document their observations and conclusions about the factors influencing slope stability. Assess quality of observations, connection to theory, and clarity of explanation. |
| 1. Predict the occurrence of mass wasting in highland areas through applying the relevant information (v/a) | **Effects of mass wasting**   * Provide case studies of mass wasting events in both humid and arid regions. Learners analyse the causes, effects, and responses to these events. * Use software or online tools to create interactive models of slope failure and mass wasting events. And allow learners to manipulate variables in simulations to see the impact on slopes. * Conduct field trips to local highland areas or slopes where signs of mass wasting are visible.   Guide learners in making observations, taking measurements, and recording data on slope stability and mass wasting indicators.   * Assign group projects that focus on predicting and analysing mass wasting events and learners gather and synthesise information from various sources, such as topographic maps, photographs, and field data. Groups present their findings and propose sustainable management strategies. * Learners debate on the impacts of mass wasting on landscapes, ecosystems, and human activities. Present different viewpoints and scenarios for learners to debate. | * Use rubrics to evaluate the quality and depth of the reports. * Observe presentations based on content, organization, and delivery. * Allow learners to assess their peers and encourage self-assessments to promote reflective learning. * Converse with learners as they actively engage in hands-on activities during the field trips. * Observe presentations based on content, organization, and delivery. * Assess Clarity, accuracy, and depth of explanation. * For debates, assess Clarity, accuracy, and depth of explanation. |
| 1. Propose strategies for preventing mass wasting in the highland areas of Uganda through applying relevant information (v/a) | **Measures to control mass wasting**   * In groups, learners use internet or textbooks to research on case studies of successful measures to control mass wasting. analyse them and discuss the effectiveness of different measures. * Use diagrams and models to illustrate various mass wasting control techniques. Create 3D models of slopes and demonstrate how different measures can be applied to control erosion and stabilise the slopes. Let learners design their own models or diagrams using low-cost materials provided in class. * Organise field trips to local areas with visible control measures and learners observe, document, and evaluate the effectiveness of these measures in the field. * Provide learners with maps and data of a highland area prone to mass wasting and ask them to propose sustainable control measures. Learners present their proposals, including cost-benefit analysis and environmental impact assessments. | * Use rubrics to assess the quality and feasibility of learners' findings. * Observe learners as they design their own models using low-cost materials; converse with them during the engagement. Encourage peer assessment to promote collaborative learning and critical feedback. * Converse with learners in the field and use rubrics to assess what they document. * Use rubrics to evaluate the thoroughness, creativity, and practicality of the proposals. |

**Topic 10: Problems of Food Supply** **18 Periods**

**Topic competency:** The learner analyses local and global food supply problems as well as strategies adopted to address them using relevant information and geographic tools; and proposes innovative solutions to ensure food security for all.

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| **Learning Outcomes**  The learner should be able to: | **Suggested Learning Activities** | **Sample Assessment strategy** |
| 1. Examine the relationship between the level of economic development and food supply in a country or region by using statistics and other information (s, gs, v/a) | **Trends in World food Supply**   * In groups, learners analyse texts and statistics about global and regional trends in food production and supply; identify areas with high food production (surplus) and areas with low food production and present their findings. * Group ideas feed into a whole class discussion. * In groups learners discuss and draw a table to categorise the countries and regions with surplus food and those with food deficits according to their levels of economic development. | * Observe learners as they engage with texts and statistics to identify global trends and patterns. Look for evidence of ability to identify trends and patterns. * In conversation, ask learners to explain their findings, and to provide evidence to support their conclusions. * Assess learners’ categorisation of countries for ability to relate food production and economic development and accuracy of information. |
| 1. Demonstrate understanding of food shortages in Sub-Saharan Africa and other developing countries by using relevant information (u) | **Food Shortages in Developing Countries**   * Through questioning, guide learners to assess the food supply situation in their community, district and in Uganda as a whole. * In a discussion, learners account for the level of food supply situation in their own community, district and in Uganda. * In groups or pairs, learners search books, magazines and newspaper articles or Internet for information about food shortages in Sub-Saharan Africa. They investigate the countries affected by food shortages and discuss the causes of food shortages in the region. * Guide learners to brainstorm about the challenges associated with decreasing food supply in the region (sub-Saharan Africa). * Learners carry out library/Internet research to analyse two case studies of countries outside Africa facing food shortages; write reports and share their findings in a whole class discussion. * Groups discuss and agree on the forms of food shortages experienced in Africa and other developing regions and the appropriate terms used to describe them. | * Listen to learners’ assessment of the food supply situation noting their level of awareness of their own locality. * In conversation, ask them to give their opinions about food supply in Uganda: Does Uganda suffer from famine or not? Evaluate their ability to defend their points of view. * Observe learners as they present and discuss their reports focusing on their level of organisation and analysis and ability to sort information and respect for each other’s’ views. |
| 1. Evaluate policies and programs aimed at increasing food supplies in Uganda and other developing countries (v/a) | **Addressing food shortages**   * Learners brainstorm ways of ensuring adequate food supply in their families and communities. * Learners discuss measures which can be taken to address food shortages in Sub-Saharan Africa. * Learners carry out library/internet research about efforts made to end food shortages in Sub-Saharan Africa and other developing countries, evaluate their effectiveness and write reports. Individual reports feed into a whole class discussion. | * Observe learners discussing ways of addressing food shortages in Sub-Saharan Africa and assess their ability to come up with feasible solutions to real life problems. * In conversation, probe learners to elaborate their ideas noting how well they express their views. * Assess learners’ written reports focusing on relevance, accuracy and coherence of information. |
| 1. Develop an action plan or manifesto for addressing food shortages in Africa or any other area basing on the causes and effects of the situation (gs, v/a) | *Learners carry out a project on strengthening /consolidating food security in the local area or other areas.* | * Assess learners’ project work throughout the process paying special attention to their ability to: * work independently with persistence, * manage goals and time, * use a range of media to communicate ideas, * work together to generate ideas, * identify problems and ways forward, * evaluate different solutions. |

**Senior Six Term Two**

**Topic 11:** Settlement 42 **periods**

**Topic competency:** The learner proposes plans for developing and re-developing settlements and their environments through collecting, processing and analysing information about certain settlements so as to promote the welfare and sustainable development of their inhabitants.

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| Learning Outcomes  The learner should be able to: | Teaching learning strategies | Assessment strategies |
| 1. Demonstrates understanding of settlements by examining their types, characteristics, patterns, and functions (u) | **Introduction to settlement:**  Through brainstorming, ask learners to describe where they live.  Learners study photographs, texts extracts or watch a video clip showing different settlement types i.e, rural, urban and peri-urban, write down their findings, and make presentations. Group ideas feed into a whole class discussion.  Guide learners to brainstorm and agree on the meaning of settlement.  In groups, learners analyse three different topographic maps and describe the different settlement patterns (Linear, nucleated, dispersed etc) and relate them to the types of settlements.  In groups, learners discuss the functions of settlements, giving examples from the maps and local communities they know.  Groups present their ideas for further discussion.  Learners make guided notes in their books | Observe how learners listen attentively and with comprehension as they watch the video.  Hold conversation to check for their deeper understanding of the key concepts.  Observe individual learners in groups and assess their ability to talk confidently and explain ideas clearly, and accurately analyse settlement patterns.  Converse with learners about functions of settlements through probing questions, focussing on coherence and accuracy of responses. |
| 1. Analyse the relationship between settlement and the environment in regions with contrasting physical environments (v/a) | Divide learners into groups and assign each group two case studies of contrasting environments (e.g. desert vs. tropical rainforest, mountainous vs. coastal region). In their groups, learners research about how human settlements in these environments are influenced by physical factors. Task them to compare factors such as population density, housing styles, economic activities, and infrastructure development.  Groups present their findings using charts, maps, or presentations to demonstrate how settlements adapt to different environments.  Learners analyse statistics showing number of settlements of an area in Uganda. Individually, learners draw and use a dot map to show distribution of settlement in that area.  Organize learners to debate on the motion: *"Settlements are more influenced by the environment than human ingenuity."*  Individually, learners writepost-debate essays reflecting on how both environment and human innovation shape settlements | Observe learners as they research about how human settlements are influenced by physical factors, focus on their ability to take responsibility for own learning.  Ask learners as they make presentations to explain clearly how physical environment influences settlement, so as to assess deeper understanding.  Evaluate learners dot maps for accuracy and coherence of information.  Observe learners during the debate to assess their ability to defend their ideas in context, talk confidently and explain opinions clearly, and listen attentively and with comprehension while respecting other people’s views. |
| 1. Analyse the changing types, patterns and functions of rural settlements in Uganda and other countries and the impacts these have on the surrounding areas(v/a) | **Rural Settlement**  **Types:** Provide learners with photographs, or videos of different rural settlements to identify types of rural settlements and task them to classify the images into settlement types based on their characteristics. Groups note down their findings and make presentations to aid further class discussion.  Individually, learners carry out a library or internet research on the types of rural settlement and their characteristics to supplement information provided by the photographs. They make research reports about their findings.  **Site and location**  In groups, learners analyse topographic maps of Uganda to identify common rural settlement locations (e.g., near rivers, fertile land, or transport routes) to explore site and location of rural settlements, and discuss why certain locations are more favorable for rural settlements, and make note down their findings on manillas, and display their work on the classroom walls.  Through a gallery walk, groups comment and critique on each other’s work.  **Functions:** In groups learners discuss the roles of rural settlements, and present their ideas to the class for further discussions.  **Impact on surroundings:** Guide learners to **c**onduct a field study in a nearby rural settlement to analyse the impact of rural settlements on surroundings.  In groups, learners observe and record the environmental, economic, and social impacts of the settlement, and write a group report with recommendations on mitigating negative impacts while enhancing positive contributions.  Learners role-play a rural settlement planning committee tasked with improving living conditions in a hypothetical or real settlement, and propose solutions to challenges. | Observe learners as they analyse photographs, texts or videos focusing on how well they sort and analyse information.  Observe learners as they classify the images into settlement types focussing on how well they look for patterns and make generalisations.  Probe learners to explain reasons behind the classifications they have come up with.  Observe learners as they analyse topographic maps focusing on how well they work with others to generate ideas.  Probe learners as they explain why certain locations are more suitable for rural settlements focusing on in depth understanding.  Assess learners write ups focussing on accuracy and coherence of ideas presented.  Observe learners during the group discussions to assess their ability to interact effectively with others.  Converse with learners during presentations to assess depth of their ideas as they explain the roles of rural settlement.  Observe learners as they collect data from the field, assess how well they plan and sort out investigations on the impact of rural settlements on surroundings.  Observe learners as they discuss in groups, focussing on team work and ability to express their ideas logically and fluently.  Probe learners to explain their views about functions of rural settlement focusing on their ability to look for patterns and make generalisations.  Observe learners while in the field to assess their ability to interact effectively with others, and use a range of media to collect and communicate ideas during and after the field work.  Evaluate learners field reports focusing on clarity, accuracy and logical flow of the information presented, and feasibility of the recommendations sited on mitigating negative impacts of settlement. |
| 1. Analyse the types, patterns and functions of urban settlements in Uganda and other countries and the impacts these have on the surrounding areas in order make informed decisions about managing settlements (s,v/a) | **Urban settlement**  In groups, learners analyse photographs, texts or watch videos showing different urban settlements. Ask learners to classify them based on type.  In groups, learners explore case studies to analyse urban settlements and their main functions. Groups note down their findings and make presentations to aid further class discussion.  In groups, learners use blank maps of a city, and label key zones such as CBD, industrial areas, residential zones to explore the internal structure of urban settlements, and discuss how the identified zones are arranged and their interrelationships.  Guide leaners to conduct a field visit to a local city or take a virtual tour of a city using Google Maps to identify and observe the internal structure of an urban area. Take notes and draw field sketches, and write field reports to report about their findings.  In groups, leaners analyse case studies of planned and unplanned cities. Groups sketch the internal structure of two different cities (a planned city and unplanned city), and discuss the differences. Groups share their findings to feed in a whole class discussion.  Learners locate the Central Business District (CBD), Inner city and (inner and outer) suburbs of the cities or towns that they know and justify the choice, and share their findings in a whole class discussion | Observe learners during group discussions and as they make classifications focusing on how well they identify features of different types of urban settlements, and listen attentively to one another with comprehension.  Hold conversations with learners during the discussions probing them to give justify their classifications.  Evaluate the completed classification chart or table focusing on coherence, accuracy and clarity of explanations provided for the classifications.  Listen to how learners identify and link urban functions to specific settlements during the case study discussions. Focus on how well they sort and analyse information from the case studies provided.  Probe learners during the case study discussions, focusing on clarity in explaining the main functions of urban settlements.  Hold conversations while learners label maps and probe them to explain their choices and exhibit Understanding of interrelationships between zones.  Observe learners during group discussions on how the zones are arranged and how learners interact effectively with others.  Evaluate the labeled maps focusing on clarity and accuracy in identifying and labeling zones like the CBD, industrial areas, and residential zones  Ask learners questions about the zones they observe during the tour focusing on how well they evaluate different solutions.  Observe learners' engagement and note-taking during the fieldwork activity. Asses their ability to identify features of the internal structure  Evaluate their fieldwork notes and sketches for accuracy and logical flow of information.  Observe learners during group discussions and as learners sketch the internal structures of cities, noting how well they identify and compare features of planned and unplanned cities and try out innovative ideas.  Evaluate the sketches of the cities’ structures drawn focusing on accuracy and coherence of information. |
| 1. Propose innovative solutions for addressing settlement-related challenges, such as slum development, urban sprawl, and infrastructure inadequacies, based on analyzed data and case studies. (u, v/a) | **Problems of Urban growth**  Provide learners with printed case studies or newspaper articles on urban growth problems in cities like Kampala or Nairobi.  In groups, learners use the articles to identify and discuss problems resulting from urban growth and propose solutions. Learners share their findings through class presentations.  Learners carry out a field trip to a local area to observe urban growth challenges, and write reports or draw diagrams illustrating the problems and possible solutions. Encourage learners to use camera to capture images during the trip, which can be printed and shared in class. | Observe how learners work together to analyse articles, listen to how they identify and explain the problems during group discussions. Focus on their ability to identify key urban problems from the text and ways forward.  Probe learners logical thinking in proposing solutions during the group discussions, presentations and whole class discussions.  Ask learners guiding questions about the challenges they observe during the field trip, noting their ability to identify real-life urban growth problems.  Observe how learners interact with the environment and take notes or photos, focusing on how well they engage with the activity and use a range of media to communicate ideas.  Assess learners field reports that describe the problems and suggest realistic solutions, their field sketches or diagrams illustrating observed challenges, focusing on accuracy, clarity, coherence of information, and feasibility of solutions proposed. |
| 1. Propose a feasible land use plan to manage urban growth in a way that balances economic development, social equity, and environmental conservation. (u, v/a) | **Land use Planning and Control of urban growth**  *Learners carry out a project on designing a small sustainable urban area on paper, incorporating proper land use planning and measures to control growth, and thereafter present their designs to the class.* | Observe groups or individual learners as they work on their designs focusing on how well they use imaginations to explore possibilities and use numbers and measurements accurately.  Ask questions about their ideas for sustainable land use and growth control measures focusing on their understanding of sustainability principles.  Listen to learners explain their designs and respond to questions from peers or the teacher during the presentations. Focus on their ability to justify how the design promotes sustainability and controls growth.  Observe learners during presentations focusing on how well they talk with confidence and explain their layout and decisions made, use of visuals to communicate ideas effectively, and willingness to take in criticism.  Evaluate the final design (detailed and labeled map or drawing of the urban area), focusing on feasibility and logical flow of ideas presented. |

**Topic 12:** Sea and Lake Coasts **Periods**

**Topic competency:**

The learner demonstrates appreciation of coasts as dynamic physical environments through examining their nature, geomorphic processes modifying them and resultant features, as well as benefits and challenges of living in coastal areas to inform decisions aimed at developing such areas.

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| **Learning Outcomes**  The learner should be able to: | **Suggested Learning Activities** | **Sample Assessment strategy** |
| 1. Analyse the formation and characteristics of coastal landforms and evaluate their significance in shaping coastal landscapes over time. (u) | **Waves and their nature**   * Through brainstorming, guide learners to revise the nature and characteristics of coasts as changing landscapes affected by wave action, tidal influence, sediment transport and human activities. * Through a jigsaw method, Learners collaboratively investigate **wave action**, **tidal influence**, **sediment transport**, and **human activities** shaping coasts, and integrate their findings to develop a comprehensive understanding of coastal dynamics. * In groups, learners carry out online or library research on other factors affecting the development of coastal landforms and features; write a report and make presentations. | * Observe learners during the jigsaw activity, assessing their ability to collaborate and synthesize findings on wave action, tidal influence, sediment transport, and human impacts. * Converse by probing learners during group presentations to evaluate their understanding of how these factors interact to shape coasts. * Assess the concept maps and group summaries for clarity, accuracy, and depth of analysis. |
| **Landforms due to wave action along the coast**  Through questioning, guide learners to revise the coastal landforms they studied in lower secondary.   * Provide them with photographs and maps of a coastal area (real or hypothetical, such as Lake Victoria's shores or oceanic coasts). * Learners create a concept map linking wave processes (e.g., hydraulic action, abrasion) to specific landforms and their features. They annotate it with examples and significance. * Learners then develop a detailed resource map that highlights opportunities for development, such as ecotourism or aquaculture. | * Observe learners as they create and annotate concept maps, focusing on their ability to link processes like hydraulic action and abrasion to specific landforms. * Converse with learners during discussions on the significance of coastal landforms for development, probing their understanding of the connection between physical processes and human use. * Assess resource maps and presentations for accuracy, creativity, and application of geographic knowledge |
| 1. Predict the future relationship between land and sea or lake coast using knowledge of the current crustal stability and ongoing climate change in order to create awareness about natural hazards affecting coastal areas (v/a) | **Lake and Sea level changes** (Eustatic adjustment)   * In groups learners read and analyse articles (in print, digital form) on sea level changes, including their types, causes effects and importance. Each group summarises key points, creating a fact sheet or info graphic to present to the class. * As a whole class, learners discuss and categorise the causes into natural and human-induced causes of sea level changes and explore their connections to climate change. * In groups, learners search textbooks or the internet or watch videos to analyse case studies of effects of sea/lake level changes on specific regions (e.g., deltas, island nations). They write a report of their findings and share it in a class discussion. * Guide learners to conduct a debate on the importance of understanding sea level changes, using evidence from the articles to argue whether mitigation or adaptation should take priority. * Learners write a reflective essay on how sea/lake level changes affect their region or country, proposing strategies to address related challenges and opportunities. | * Observe learners during the discussion and debate focusing on their ability to listen attentively with comprehension, think and reason objectively and how well they can defend their opinions. * Evaluate learners’ reports about the effects of sea/lake level changes on named regions for accuracy of geographic facts, depth of analysis and ability to use illustrations to clarify written information. * Ask leaners to explain their reflective essay on how sea/lake level changes affect their region or country. Note their ability to express their ideas clearly and logically; and how well they can sort pros and cons of natural geomorphic events. |
| 1. Analyse the resource potential associated with coastal landforms and how this can be tapped for development(v/a) 2. Propose a plan for developing a coast basing on its actual and potential resources and challenges as a way of facilitating resource utilisation and community development (s, gs) | **Influence of coasts on human activities**   * In groups, learners create a presentation or infographic that highlights the key resources, their uses, and sustainable management practices. * Groups share their findings and explore how different coastal landforms support development in various regions. * In groups, learners critically assess the economic, environmental, and social benefits and challenges of utilizing these resources. * Individually, learners write a report or essay on how one specific coastal landform and its resources can be sustainably developed to benefit a local or national economy. | * Observe group research activities, focusing on their use of resources (e.g., maps, case studies) and collaboration. * Converse group presentations, ask learners to justify their proposed strategies for sustainable development and address challenges related to resource use. * Assess the group presentations, infographics, and individual essays for: * Depth of resource analysis. * Feasibility and sustainability of proposed strategies. * Creativity and clarity of communication. |

**Senior Six Term Three**

**Topic 13:** Climatology and Meteorology 48 **Periods**

**Topic competency:** The learner demonstrates understanding of climatology and meteorology through analysing atmospheric dynamics, complex climate data, and predicting weather patterns in order to propose evidence-based strategies for adapting human activities to climate.

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| **Learning Outcomes**  The learner should be able to: | **Suggested Learning Activities** | **Sample Assessment strategy** |
| Analyse the factors influencing the temperature of a place and vertical temperature variations, the causes and effects of temperature inversion, and the implications of temperature inversion on local weather patterns, air quality, and climate systems. | **Temperature**   * Through questioning, guide learners to revise temperature as one of the elements of weather studied at Lower Secondary.   **Factors influencing the temperature of a place**   * Learners Think-Pair-Share as they discuss local examples where certain factors influence temperature. * Learners analyse temperature variations in contrasting regions and present their findings to the rest of the class * In groups learners interpret temperature statistics and graphs for different locations to identify patterns and influencing factors.   **Vertical temperature variation**   * Learners conduct an experiment using a heat source and thermometer to simulate temperature changes with altitude. * In groups, learners analyse diagrams of the troposphere and stratosphere to show how temperature varies with height and write a summary of their analysis and share with the rest of the class. * Learners work in groups to create and present models of atmospheric layers and temperature gradients. * Learners explore through guided discussions real-world phenomena like mountain climate and its relationship to vertical temperature variation.   **Factors influencing vertical variation in temperature**   * Learners carry out a fieldwork study to observe examples of vertical temperature variation and document their findings and share with the rest of the class. * Learners role-play as climatologists explaining vertical variations in different regions and make recordings of their submissions. * Learners analyse scenarios where factors like atmospheric pressure, humidity, and radiation influence vertical temperature variations and make presentations.   **Temperature inversion**   * Learners use a classroom experiment with layers of air (cold and warm water) to demonstrate temperature inversion. * In pairs, learners discuss phenomena like fog formation, smog events, and cold air pooling in valleys. * In groups, learners analyse case studies of temperature inversion * Learners predict the impacts of temperature inversion in specific settings (e.g., urban areas).   **Effects of Temperature inversion**   * In pairs, learners watch videos and animations depicting the impacts of temperature inversion on weather and air quality. They note down what they have observed and share with the whole class. * In groups, learners assess the implications of temperature inversion for local agriculture, health, and urban planning. * In pairs, learners develop posters or info graphics illustrating the effects of temperature inversion and display their work for the rest of the class to view. | * Observe pairs as they discuss focusing on how actively and thoughtfully learners engage in discussions with their partner, ensuring they listen and contribute relevant ideas. * Observe learners’ participation in analysing data, focusing on their collaboration, use of reasoning, and ability to interpret patterns accurately. * Assess the depth and relevance of learners’ contributions during discussions. Look for their ability to use examples, apply concepts, and articulate influencing factors like latitude, elevation, and human activity. * Assess how clearly learners present findings on temperature variations, including their explanation of the influencing factors and how they connect to the analysed data. * Assess the presentation of findings for contrasting regions focusing on scientific accuracy, clarity and critical thinking. * Evaluate learners’ interpretation of temperature data by assessing how effectively they identify trends and patterns and justify conclusions using evidence from the data. * Observe learners’ ability to follow experimental procedures safely and accurately (e.g., proper handling of thermometers and heat sources). * Assess the depth and relevance of learners’ contributions during guided discussions on phenomena like mountain climates and altitude-temperature relationships. * Observe learners’ ability to present arguments logically and respectfully during the debate. Monitor their use of evidence and examples to support their points, as well as their ability to respond thoughtfully to counterarguments. * Observe learners as they watch the video focusing on their ability to listen attentively with comprehension. * Evaluate group outputs on local implications for agriculture, health, and urban planning based on, scientific accuracy, depth of analysis and logical and clear presentation of findings. * Assess pairs’ posters or infographics using criteria such as: Visual appeal, scientific content, accuracy and relevance of information and clarity. |
| 1. Demonstrate understanding of the relationship between humidity, temperature and precipitation using relevant illustrations in order to appreciate the role of humidity in regulating temperature and maintaining life on earth (u, v/a) 2. Predict the occurrence and intensity of precipitation using the knowledge of humidity (v/a) | **Atmospheric Humidity**   * Through questioning, guide learners to revise humidity as one of the elements of weather studied at Lower Secondary. * In groups, learners carry out a simple experiment (e.g., comparing evaporation rates in humid and dry conditions using wet clothes or containers of water) to introduce themselves to the concept of humidity.   Learners discuss their observations and define humidity in their own words.   * In groups, learners brainstorm related ideas (e.g., water vapor, air temperature) and create a concept map to visualize the meaning of humidity. * Learners individually write what they think humidity means, discuss with a partner, and share definitions with the class.   **Types of humidity**   * Through questioning, guide learners to revise the types of humidity. * Learners use thermometers, hygrometers, or psychrometers to measure absolute and relative humidity in places. * In groups, learners calculate and compare values to understand the difference between absolute and relative humidity. * In pairs, learners act as meteorologists explaining the concepts of absolute and relative humidity to an audience, using graphs or other visual aids. The audience asks questions and pairs clarify their ideas. * Learners create tables or diagrams comparing absolute and relative humidity, including their definitions, formulas for determining them, and real-life examples.   **Factors influencing humidity of place**   * In groups, learners analyse real-world data or case studies on how factors like temperature, altitude, proximity to water bodies, vegetation, and human activities influence humidity in different locations. * Learners go on a local field trip to observe how nearby features (e.g., lakes, forests, urban areas) affect humidity levels and document their findings. * Learners analyse data on temperature, elevation, and water vapour content for various locations. They infer the key factors influencing humidity and discuss their reasoning.   **The significance of humidity for the environment**   * In groups, Learners discuss how humidity impacts ecosystems (e.g., plant growth, animal behaviour) and global phenomena (e.g., climate regulation) and make presentations to the rest of the class. * In pairs, learners carry out library or internet research to examine the influence of atmospheric humidity on weather pattern and in maintaining life on earth. They write and present reports * In pairs, learners create posters, videos, or skits illustrating the importance of humidity for specific scenarios (e.g., desert vs. rainforest ecosystems, impacts on farming, or human health). * Learners use weather or climate simulations to show how changing humidity levels affect ecosystems and temperature. Learners predict outcomes and discuss findings. * Learners debate topics like "Is high humidity more beneficial or detrimental for humans and the environment?" | * Observe how actively and thoughtfully learners engage in discussions with their partner, ensuring they listen and contribute relevant ideas. * Monitor their ability to connect local examples to the influencing factors (e.g., altitude, proximity to water, vegetation, or urbanization). * Observe learners as they work in groups. Learners evaluate their own contributions and learning. * Observe learners as they work collaboratively to brainstorm ideas and construct a concept map and how concepts connect. * Observe learners as they measure humidity for accurate use of instruments, proper handling and safety and attention to detail in measurements. * Observe groups as they calculate and compare values for relative and absolute humidity. Pay special attention to their ability to interrogate mathematical data. * Converse with learners as they provide feedback to each presenting pair noting how objective and constructive their feedback is. * Evaluate the quality of data interpretation and analysis, clarity and effectiveness of visual aids, clarity, depth, and delivery of group presentations and the quality of individual reflections. * Observe learners as they collect data during the field trip; observe group dynamics during the field trip and analysis and use rubrics to evaluate the depth and clarity of post-trip analysis and presentations. * Observe as learners as they collaboratively discuss, evaluate the quality of group presentations and individual reflections for depth of insight. * Use rubrics to evaluate the quality of research and information gathering, clarity and quality of the presentation and how well pairs worked together. * Each pair rates their teamwork and classmates provide feedback on engagement and creativity. Use the rubric to evaluate each project, considering both the presentation and effort put into preparation. * Observe learners’ engagement with the tools, their ability to manipulate variables, and their data collection methods, use rubrics to evaluate submitted reports, presentations, or discussions. * Observe as learners debate and use rubrics to evaluate logical flow of ideas, critical thinking abilities and communication skills. |
| 1. Demonstrate understanding of solar radiation by pointing out its nature, the processes it undergoes as it passes through the atmosphere, and its effects on temperature on earth (u, gs) | **Solar Radiation**   * In groups, learners use diagrams, videos, and animations to explain the nature of solar radiation, its interaction with the atmosphere (e.g., absorption, scattering, and reflection), and its impact on Earth's temperature. * In pairs, learners conduct a simple classroom experiment to demonstrate solar radiation effects, such as placing thermometers in sunlight and shade to observe temperature differences * In groups learners investigate specific topics related to solar radiation, such as the greenhouse effect, urban heat islands, or seasonal temperature changes and present their findings, supported by real-world data and maps | * Observe group progress and collaboration. Converse about the draft visuals or presentations to guide improvements. * Observe pairs as they conduct the experiment, noting; Proper placement of thermometers, accurate reading and recording of temperatures and effective teamwork. Use a rubric to assess the accuracy and depth of their responses. |
| 1. Discuss the factors that influence the amount of solar radiation received at any place (u) | * In groups, learners model the Earth-Sun Relationship by placing the globe in a darkened room, and shine a flashlight/lamp on it to simulate the Sun’s rays. They rotate the globe to show how sunlight falls on different parts of the Earth at varying angles. They discuss why different parts of the earth do not receive the same amount of radiation. | * Observe each group and assess, the modelling skills, how accurately they manipulate the globe and flashlight to represent the Earth-Sun relationship, and collaboration skills. |
| 1. Analyse the role of solar radiation in controlling climate, weather and life on planet earth (v/a) | * In groups, learners discuss how the Sun’s energy influence what happens on Earth. They make presentations to the rest of the class. | * Observe group discussions and assess their presentations for clarity, creativity, and conceptual accuracy. |
| 1. Analyse the relationship between temperature, atmospheric pressure and wind movement using appropriate illustrations (u, a/v) | **Atmospheric pressure and Wind systems**   * In groups, learners study diagrams of atmospheric pressure belts (equatorial low, subtropical high, polar high) and wind systems. * They use a globe and markers to model the different wind systems, use arrows to show wind directions. They mark high- and low-pressure zones and discuss how temperature influences pressure belts and the formation of wind systems. * They present their models to the class for discussion. | * Observe learners as they study the diagrams. * Assess group posters/models for clarity and accuracy of information. * Ask learners to explain their models noting how well they articulate the relationship between temperature, pressure and wind movements. |
| 1. Demonstrate understanding of winds at different scales by examining their types, causes, characteristics and effects on weather, climate and human activities (u) | * In groups, learners roleplay different wind system (e.g., one group for the Trade Winds, another for Westerlies, and so on). Each group gets an index card with key information about their wind system, including its location, characteristics, and how it affects weather and climate. * Groups discuss how their wind system works and "act it out." by moving around the room to represent the flow of winds, interacting with other groups to demonstrate how these winds affect weather patterns. E.g., Trade Winds move from high-pressure areas at the Tropics of Cancer and Capricorn toward low-pressure areas near the Equator, creating tropical climates. | * Observe learners as they work in groups focusing on teamwork, and understanding of their wind system. * In conversation, ask each group to explain other weather conditions which might result from the wind system it is presenting. Note the maturity of their reasoning. |
| 1. Predict weather conditions and their effects at a given place through interpreting weather maps and satellite images (u, s) | * In groups, learners analyse a weather map and satellite image of a specific region; using isobars as a guide to identify any places experiencing rainfall or storms and other weather conditions that might occur in specific locations over the next 24-48 hours. * In groups, learners roleplay weather forecasting for different regions. They present a weather report to the class, pointing out the current weather conditions, predicting weather conditions for the next 48hours, and the likely effects they may have on the life of the people. | * Observe learners as they analyse weather maps noting the accuracy of their interpretation maps and predicting weather. * Observe learners as they present weather reports and assess clarity, creativity, and scientific reasoning in the role play. * Learners assess the write-ups of their peers regarding how they used pressure and wind patterns to predict weather. |
| 1. Predict short term weather trends for a given place and their effects through interpreting weather maps and satellite images of air masses(s) | **Air masses**   * In groups, learners interact with a map showing source regions of air masses. They identify the air mass on the map, trace its movement from its source region to its destination and predict the effects on weather conditions at its destination using appropriate terms. * In pairs, learners roleplay Air Mass Narrators and each pair presents its scenario as if narrating the journey of the air mass, its type, source region, and effects on weather in the destination area. * In groups, learners analyse a weather map and satellite image of a specific region showing air masses and associated weather patterns. They identify the air masses affecting the region, locate and describe any fronts or boundaries (e.g., cold front or warm front) and predict the short-term weather for the region | * Observe learners as they engage with the map showing air masses focusing on their ability to read, interpret and make inferences about information shown on maps. * Evaluate learners’ submissions on air masses and associated weather for ability to use technical terms appropriately, accuracy of facts and predictions. |
| 1. Analyse the relationship between atmospheric pressure and cyclones and anticyclones using appropriate illustrations (u, a/v) 2. Determine weather conditions for a given place and their effects through interpreting weather maps and satellite images of cyclones and anticyclones(s) | **Cyclones and Anticyclones**   * In groups learners analyse a map showing isobars, pressure centres, and wind directions. They identify cyclones and anticyclones on the map and annotate the map with labels for high-pressure (H) and low-pressure (L) systems, wind directions, and weather conditions. They observe the isobar and use weather symbols to predict the weather for areas under the influence of each system. * In groups, learners use data to mark cyclone-prone areas (e.g., Pacific, Indian, and Atlantic Oceans) and regions associated with persistent anticyclones (e.g., deserts like the Sahara or Kalahari) on blank world maps using one colour for cyclones and another for anticyclones. Each group picks one region with cyclones and one with anticyclones and researches their typical weather patterns (e.g., heavy rainfall, strong winds for cyclones; clear skies, dry conditions for anticyclones) and investigate the impact on human activities (e.g., farming, transport, settlements). * In pairs, learners use the internet or textbook to research the characteristics of cyclones and anticyclones and fill a worksheet that includes columns for cyclones and anticyclones. They complete the chart by noting the following; type of pressure system, airflow direction and movement, weather conditions associated with each system and examples (e.g., Hurricane Katrina for cyclones, calm desert regions for anticyclones). * In groups, learners interact with a weather map/satellite image for a specific region (e.g., a tropical cyclone near the Indian Ocean or an anticyclone over Australia). They analyse the maps/images to: identify areas of high and low pressure; determine wind directions and speeds (using isobars) and, predict weather conditions and record their findings on the worksheet. | * Observe learners as they identify cyclones/anticyclones, air movement, and weather predictions. * Observe learners as they complete the comparative chart focussing on accuracy. * Probe groups to explain their weather predictions and evaluate their ability to relate weather formation to the nature of the wind approaching an area. |
| 1. Articulate the role of ocean currents in distributing heat across low and high latitudes using relevant knowledge (v/a) 2. Form opinions about the effects of ocean currents on the climate of coastal areas, adjacent landmasses and human activities (v/a) | **Ocean Currents**   * In groups, learners set up two clear containers (representing oceans). Warm-coloured and cold-coloured water (e.g., red and blue food dye), salt and a small fan or straw to mimic wind. They fill one container with water and use the fan/straw to create surface currents. They Observe how the movement of air influences the water's surface. They fill the second container with water and add salt to one side and cold-coloured water to the other side and slowly mix and observe how the dense, salty, or cold-water sinks, while less dense water rises. They record their observations and relate them to surface and deep-water current characteristics. * In groups, learners use a blank world map to mark and label warm and cold currents. They use different colours for different types of ocean currents; and arrows to show the direction of the currents and label each current clearly. Groups present their findings to the class for discussion. * Through explanation, guide learners to understand the general patter of ocean currents such as: Warm currents flow away from the equator; Cold currents flow toward the equator. * In pairs, learners simulate ocean currents by filling a container halfway with water, with ice cubes placed at one end and warm water poured at the other. They gently introduce the warm and cold water (in different colours) without mixing it; and apply a fan to create "wind" across the surface. They observe the movement of water and how heat from the red-dyed water mixes with the blue-dyed cold water and note them down. * Learners predict and explain how this simulated movement mirrors real-world ocean currents and impacts global climates. * In groups, learners research the climate, ecosystems, and human activities in specific case studies of regions influenced by ocean currents and present findings using a visual aid. | * Observe how learners interact and work together. * Observe each group's ability to: identify reliable sources of information, organize their research around climate, ecosystems, and human activities, divide tasks effectively among members. * Evaluate learners’ research work for depth and accuracy of information, use of evidence/examples and relevance to the selected case studies. |

**Assessing Geography**

**Assessing the new expectations for learning**

The new curriculum sets new expectations for learning, with a shift from Objectives to Learning Outcomes that focus mainly on application of knowledge and deeper learning that leads to acquisition of skills. These Learning Outcomes require a different approach to assessment. The “Learning Outcomes” in the syllabuses are set out in terms of Knowledge, Understanding, Skills, Values and Attitudes. This is what is referred to by the letters k,u,s v & a.

It is not possible to assess attitudes in the same way as knowledge, understanding and skills because they are more personal and variable and are long-term aspirations. This does not mean that values and attitudes are not important or cannot be assessed. They too can be assessed but not easily done through tests and examination. Values and attitudes can be assessed over a period of time through observing and having interactions with the learner.

So, this guidance section focuses on knowledge, skills and understanding. Each has its own implications for learning and assessment.

To assess knowledge and its application, understanding and skills, we need to look for different things. Knowledge can be assessed to some extent through written tests, but the assessment of skills, application of what is learnt and deeper understanding requires different approaches. Because of this, the role of the teacher in assessment becomes much more important.

**Examinations**

There will be only one school based summative assessment at the end of the year. There will no longer be examinations or tests set at the beginning and end of every term. Instead, there will be a summing up of on-going teacher assessments made in the context of learning through Activities of Integration assessment. The learners will also be subjected to the end of cycle assessment for certification. Details on the end of cycle assessment are provided in the assessment guidelines document.

**Formative Assessment**

In this aligned curriculum, the teacher’s assessment role is not to write tests for learners, but to make professional judgements about learners’ learning in the course of the normal teaching and learning process. The professional judgement is about how far the learner achieves the Learning Outcomes that are set out in this syllabus. To make these judgements the teacher needs to look at how well the learners are performing in terms of each Learning Outcome.

The formative assessment opportunities occur in three forms. They can be done through:

* **Observation** – watching learners working (good for assessing skills, values and attitudes)
* **Conversation** – asking questions and talking to learners (good for assessing knowledge and understanding)
* **Product** – appraising the learner’s work (writing, report, translation, calculation, presentation, map, diagram, model, drawing, painting etc). In this context, a “product” is seen as something physical and permanent that the teacher can keep and look at, not something that the learner says.

When all three are used, the information from any one can be checked against the other two forms of assessment opportunity (e.g., evidence from “observation” can be checked against evidence from “conversation” and “product”). This is often referred to as “triangulation.”

**Triangulation**

**Product**

**Observation**

**Conversation**

**Generic Skills**

The Generic Skills have been built into the syllabuses and are part of the Learning Outcomes. It is therefore not necessary to assess them separately. It is the increasingly complex context of the subject content that provides progression in the Generic Skills, and so they are assessed as part of the subject Learning Outcomes.

**Values/Attitudes**

It is not possible to assess values and attitudes in the same way as knowledge, understanding and skills because they are more personal and variable and are long-term aspirations. This does not mean that attitudes are not important. It means that we must value things that we cannot easily assess through tests and examination. However, values and attitudes can be assessed over a long period of time through observing and interactions.

**Glossary of Key Terms**

|  |  |
| --- | --- |
| **TERM** | **DEFINITION** |
| **Competency Curriculum** | One in which learners develop the ability to apply their learning with confidence in a range of situations. |
| **Differentiation** | The design or adaptation of learning experiences to suit an individual learner’s needs, strengths, preferences, and abilities. |
| **Formative Assessment** | The process of judging a learner’s performance, by interpreting the responses to tasks, in order to gauge progress and inform subsequent learning steps. |
| **Generic skills** | Skills which are deployed in all subjects, and which enhance the learning of those subjects. These skills also equip young people for work and for life. |
| **Inclusion** | An approach to planning learning experiences which allows each student to feel confident, respected and safe and equipped to learn at his or her full potential. |
| **Learning Outcome** | A statement which specifies what the learner should know, under-stand, or be able to do within a particular aspect of a subject. |
| **Process Skill** | A capability acquired by following the programme of study in a particular Learning Area; enables a learner to apply the knowledge and understanding of the Learning Area. |
| **Sample Assessment Activity** | An activity which gives a learner the opportunity to show the ex-tent to which s/he has achieved the Learning Outcomes. This is usually pat of the normal teaching and learning process, and not something extra at the end of a topic. |
| **Suggested Learning Activity** | An aspect of the normal teaching and learning process that will enable a formative assessment to be made. |