



ACCELERATED EDUCATION PROGRAMME

GEOGRAPHY

SYLLABUS

REVISED LOWER SECONDARY (Level 1 and 2)



MINISTRY OF
EDUCATION
AND SPORTS



NCDC
NATIONAL CURRICULUM
DEVELOPMENT CENTRE

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DEVELOPMENT CENTRE



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Revised Edition

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Foreword

Education is a fundamental tool for protection of conflict and disaster affected children and youths from harm and exploitation. This is a crucial part of UNESCO's advocacy messages. Under appropriate conditions of security, provision of education can help protect children and youths from recruitment into fighting forces, forced labour, prostitution, drug abuse and other criminal activities. In post-conflict settings, education contributes to the reintegration into society of former soldiers and other children and youths associated with fighting forces.

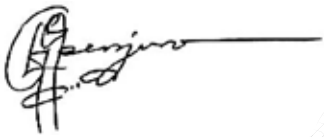
Uganda's Education Act of 2008 in Part IX, Miscellaneous Provisions 49, clearly states that "there shall be non-formal education centres" for purposes of providing non-formal education. Examples of non-formal education programmes include; Accelerated Education Programmes (AEP) for the conflict areas at both primary and secondary level, Alternative Basic Education for Karamoja (ABEK), Basic Education for Urban Poverty Area (BEUPA), Complementary Opportunity for Primary Education (COPE), and Child-centred Alternative Non-Formal Community Based Education (CHANCE), among others.

The National Curriculum Development Centre (NCDC), in collaboration with War Child Canada, embraced Accelerated Education Programme (AEP) and have condensed the lower secondary curriculum to come up with Lower Secondary Accelerated Education Program appropriate to learners in refugee camps and the host communities of secondary school age (ages 16–45+).

The Accelerated Education Programme at lower secondary school level focuses on completing learning in a shorter period of time of two years. The AEP is complementary both in providing an alternative route and in matching its curriculum to the 'official' curriculum, thus allowing learners to return to formal schooling at an opportune stage. The programme intends to promote access to education in an accelerated time frame for disadvantaged groups, out-of-school and over-age children, and youths who missed out or had their education interrupted due to poverty, violence, conflict, and any calamity.

The goal of this programme is to provide learners with competencies equivalent to those in the formal system in an accelerated time frame, with learners either transitioning back into the mainstream education or exiting with some competencies required for work.

It is my hope that AEP will register considerable success in meeting the educational needs of these underserved populations, not only in terms of access and equity, but also in helping them return to school and complete the education cycle, and especially in getting measurable learning outcomes.



Prof. George Openjuru

CHAIRPERSON, NCDC Governing Council

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Special thanks go to War Child Canada - Uganda for the financial support, their guidance in overseeing and taking timely decisions whenever necessary during the development and production of this AEP Geography Syllabus.

We also express our gratitude to NCDC Subject Specialists and panel members for their professional guidance and technical assistance.

Furthermore, NCDC recognizes the work of the editors who worked with the writers throughout the development of this document.

NCDC takes responsibility for any shortcomings that might be identified in this syllabus and welcomes suggestions for addressing the inadequacies. Such comments and suggestions may be communicated to NCDC through:

P.O. Box 7002, Kampala or e-mail admin@ncdc.og.ug.



Grace K. Baguma

DIRECTOR

NATIONAL CURRICULUM DEVELOPMENT CENTRE

Introduction

The UNESCO Education Strategy (2014 – 2021) advocates for a humanistic and holistic vision of education as a fundamental human right that is essential to personal and socio-economic development. UNESCO further recommends societies that are just, inclusive, peaceful and sustainable by 2030. Vision 2040 of Uganda aims to transform Uganda into a modern and prosperous country, while the National Development Plan III (NDPIII) recognises the existing weaknesses in education, including the low efficiency and variable quality at the Secondary level. Furthermore, NDPIII focuses on enhancement of human capital, development, strengthening mechanisms for quality, effective and efficient service delivery as well as improvement of quality and relevance of skills development.

The Sustainable Development Goal 4 advocates for inclusive and quality education. The NRM Manifesto (2016-2021), emphasises continuous assessment examination systems, strengthening soft skills, which promote self-esteem, conscientiousness and a generally positive attitude to work, promoting e-learning and computer literacy in order to enhance learning outcomes.

The above aspects are lacking and where they exist, it is at a minimum level in implementation of the curriculum.

In alignment with the above policies, the Education and Sports Sector Strategic Plan (2017/20) advocates for delivery of equitable, relevant and quality education for all. The current Secondary school curriculum for Uganda, although highly regarded, has focused on the needs of a small academically oriented elite leaving out the needs of the majority of learners. The Ministry of Education and Sports (MoES) through the National Curriculum Development Centre (NCDC) therefore, undertook a review of the Lower Secondary Curriculum, aimed at providing a learning environment, opportunities, interactions, tasks and instructions that foster deep learning by putting the learner at the centre of the learning experience. This is in line with the following aims of secondary education in Uganda:

The aims of Secondary education in Uganda are to:

- Instil and promote national unity, an understanding of the social and civic responsibilities, strong love and care for others and respect for public property, as well as an appreciation of international relations and beneficial international co-operation;
- Promote an appreciation and understanding of the cultural heritage of Uganda including its languages;
- Impart and promote a sense of self discipline, ethical and spiritual values, personal and collective responsibility and initiative;
- Enable individuals to acquire and develop knowledge and an understanding of emerging needs of society and the economy;
- Provide up-date and comprehensive knowledge in theoretical and practical aspects of innovative production, modern management methods in the field of commerce and industry and their application in the context of socio-economic development of Uganda;
- Enable individuals to develop basic scientific, technological, technical, agricultural and commercial skills required for self-employment;
- Enable individuals to develop personal skills of problem solving, information gathering and interpretation, independent reading and writing, self-improvement through learning and development of social, physical and leadership skills such as are obtained through games, sports, societies and clubs;
- Lay the foundation for further education;
- Enable the individual to apply acquired skills in solving problems of community, and to develop a strong sense of constructive and beneficial belonging to that community;
- Instil positive attitudes towards productive work and strong respect for the dignity of labour and those who engage in productive labour activities;
- Develop a positive attitude towards learning as a lifelong process.

Introduction to Accelerated Education Programme

Worldwide, substantial alternative schooling programmes are developed to meet the basic education needs of under-reached children. Of recent, it has been increasingly recognised that the goals of Education for All cannot be achieved unless more attention is paid to educating out-of-school children (UNESCO, Global Monitoring Report, 2008). Indeed, the UNESCO Global Monitoring Report 2010, 'Reaching the Marginalised,' focused on this issue. In a bid to help developing countries achieve the Millennium Development Goals, there should be initiatives to incorporate elements of accelerated learning to achieve SDG 4. The Accelerated Education Programme (AEP) in Uganda is a form of curriculum option which combines the stronger features of earlier mainstreaming approaches into the new design to raise the success rates for refugee community learners. The AEP secondary school tier is a bigger stride to address the education gap within refugee communities not only in Uganda, but also in other neighbouring countries. This AEP for Secondary has benchmarked the Primary AEP, and intends to infer the entire process of education and its cognitive, emotional, and social components.

Ideally, teaching AEP calls for a methodology that is interactive and learner-centred, incorporating other aspects of multiple-intelligence learning. Because teaching and learning are accelerated, and the curriculum content is compressed and condensed, the four 'P' elements are at the core of the accelerated learning cycle: processes, psychological, physiological and physical. These core elements provide the physical and psychological space in which the learners can learn more effectively.

It is intentional to include alternative subjects in this programme e.g., life skills, peace education, environment, HIV and AIDS which are responsive to the context. The learners of AEP need alternative supporting knowledge and life skills to survive in the challenging world. It is equally important to note that this conception of accelerated learning requires an extremely well-resourced classroom and exceptionally well-trained teachers. The expanded learning time from the norm is because the teaching methodology is interactive and learner-centred.

Key Changes in the Curriculum

The key change in the curriculum is a move from a knowledge-based curriculum to a competence and skill-based curriculum. It is no longer sufficient to accumulate large amounts of knowledge. Young people need to develop the ability to apply their learning with confidence in a range of situations. They need to be able to use knowledge creatively. A level of competence is the ability to use knowledge rather than just to acquire it. This requires an active, learner-centred rather than passive, teacher-centred approach.

This approach to teaching and learning is in support of the Sustainable Development Goals (SDG's), otherwise known as the Global Goals. These are a universal call to action to end poverty, protect the planet and ensure that all people enjoy peace and prosperity. The key changes in the curriculum will ensure that Uganda is making good progress towards SDG 4 in particular which aims to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.

The change can be summarised in the diagrams in Figure 1 and Figure 2 below.

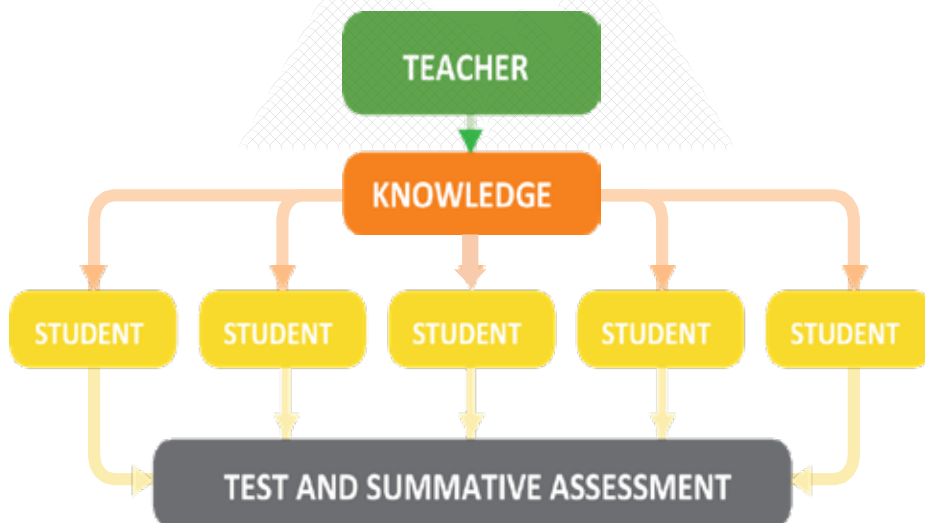


Figure 1: Knowledge based curriculum

Knowledge-based teaching was based on transferring knowledge from the teacher to the students. The teacher had knowledge and transferred this knowledge to the students by lecturing, talking, asking them to read the text book or writing notes on the board for the students to copy and learn. Students acquired the knowledge, often without fully understanding it, and were tested at the end of a topic, term or school course to see if they had remembered it. The knowledge was based mainly on the knowledge in the subjects traditionally taught at university, and little attempt was made to make it relevant to young people's own lives. The whole education system was seen by many people as a preparation for university, but the vast majority of learners never reach University. The curriculum caters for this majority as well as those who later go onto University.

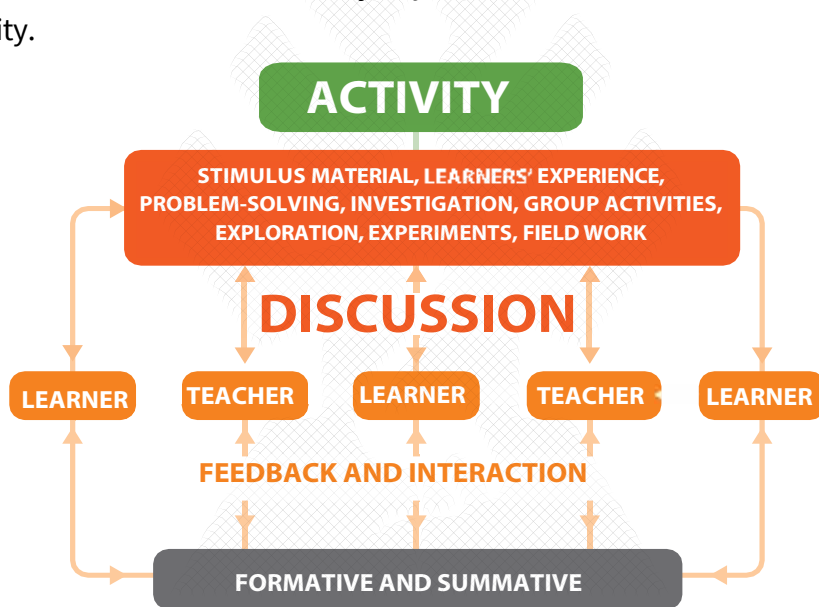


Figure 2: Competence-based curriculum

In the competence-based approach, the “student” becomes a “learner”. The new Learning Outcomes can only be achieved through active engagement in the learning process rather than simply absorbing knowledge given by the teacher. The teacher needs to build on the learners’ own knowledge and experience and create Learning Activities through which learners can explore the meaning of what is being learned and understand how it is applied in practical situations. Teaching and learning becomes a two-way process of dialogue between the Teacher and Learners.

Learners also learn from each other through discussion. Assessment also becomes a two-way process of formative and summative assessment; not just to give grades but to find out problems the learner may be having and help to solve them.

Key Learning Outcomes

This curriculum sets out Key Learning Outcomes that sum up the expectations of the curriculum as a whole, and sets out clearly the qualities that young people will develop.

By the end of the educational process, young people will become:

- 1) **Self-assured individuals who:**
 - a) Demonstrate self- motivation, self-management and self-esteem.
 - b) Know their own preferences, strengths and limitations.
 - c) Adjust their behaviour and language appropriately to different social situations.
 - d) Relate well to a range of personality types.
- 2) **Responsible and patriotic citizens who:**
 - a) Cherish the values promoted in the curriculum.
 - b) Promote the development of indigenous cultures and languages and appreciate diversity, equity and inclusiveness.
 - c) Apply environmental and health awareness when making decisions for themselves and their community.
 - d) Are positive in their own identity as individuals and global citizens.
 - e) Are motivated to contribute to the well-being of themselves, their community and the nation.
- 3) **Lifelong learners who:**
 - a) Can plan, reflect and direct their own learning.
 - b) Actively seek lifelong learning opportunities for personal and professional development.
- 4) **Positive contributors to society who:**
 - a) Have acquired and can apply the Generic Skills.
 - b) Demonstrate knowledge and understanding of the emerging needs of society and the economy.

- c) Understand how to design, make and critically evaluate products and processes to address needs.
- d) Appreciate the physical, biological and technological world and make informed decisions about sustainable development and its impact on people and the environment.

Values

This curriculum is based on a clear set of values. These values underpin the whole curriculum and the work of schools. They are also the values on which learners need to base their lives as citizens of Uganda. The values are derived from The Uganda National Ethics and Values Policy of 2013. They are:

- a) Respect for humanity and environment
- b) Honesty; uphold and defend the truth at all times
- c) Justice and fairness in dealing with others
- d) Hard work for self-reliance
- e) Integrity; moral uprightness and sound character
- f) Creativity and innovativeness
- g) Social Responsibility
- h) Social Harmony
- i) National Unity
- j) National Consciousness and patriotism

These values are not taught directly in lessons, nor will they be assessed, but they will inform and shape all teaching and learning.

Generic Skills

The generic skills 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 young people to develop into lifelong learners who can adapt to change and cope with the challenges of life in the 21st Century.

Young people need to be able to think critically and solve problems, both at school and at work. They need to be creative and innovative in their approach to learning and life. They need to be able to communicate well in all forms, co-operate with others and also work independently. They need to be able to use functional mathematics and ICT effectively. The details of the generic skills are:

01 Critical thinking and problem-solving skills

- a) Plan and carry out investigations
- b) Sort and analyse information
- c) Identify problems and ways forward
- d) Predict outcomes and make reasonable decisions
- e) Evaluate different solutions

03 Co-operation and self-directed learning

- a) Work effectively in diverse teams
- b) Interact effectively with others
- c) Take responsibility for own learning
- d) Work independently with persistence
- e) Manage goals and time

02 Creativity and innovation

- a) Use the imagination to explore possibilities
- b) Work with others to generate ideas
- c) Suggest and develop new solutions
- d) Try out innovative alternatives
- e) Look for patterns and make generalisations

04 Communication

- a) Listen attentively and with comprehension
- b) Talk confidently and explain opinions/ideas clearly
- c) Read accurately and fluently
- d) Write and present ideas coherently
- e) Use a range of media to communicate ideas

05 Mathematical computation and ICT proficiency

- a) Use numbers and measurements accurately
- b) Interpret and interrogate mathematical data
- c) Use mathematics to justify and support decisions
- d) Use technology to create, manipulate and process information
- e) Use technology to collaborate, communicate and refine one's work

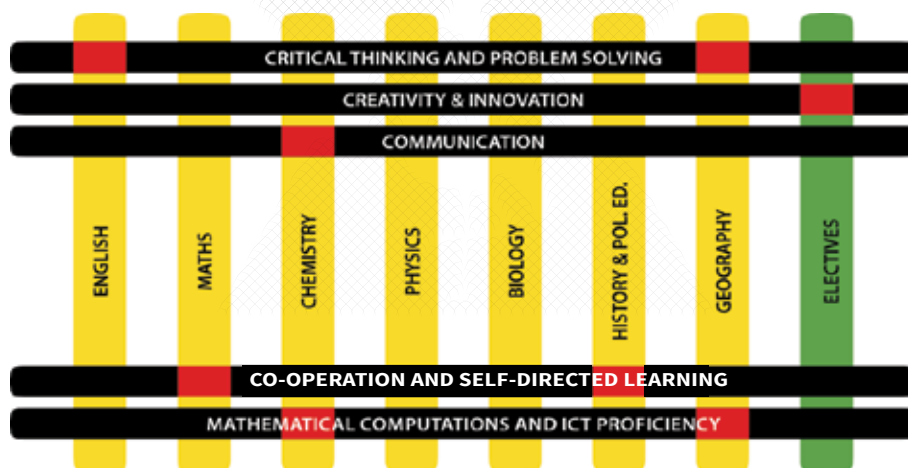
Generic skills within AEP Geography Curriculum

These skills are not separate subjects in themselves; they are developed within the subjects of the curriculum. They also help learning within those subjects. It is when these generic skills are deployed that learning is most effective.

The generic skills are a key part of the curriculum. They have been built into the syllabuses for each of the Subjects, and these Subjects provide the context for the skill development. Geography provides a rich context for learners to communicate, co-operate, and to think critically, calculate and solve problems.

The Subjects also provide the contexts for progression within the skills. The same skill definitions apply to both levels, and skills progression is provided by the increasing complexity of the subject matter within each Subject.

For example, within ‘critical thinking’, learners begin thinking critically about the relatively simple subject matter in level 1 and then progress to thinking about the much more complex matters in level 2. Thus, the progression is in the increasing complexity of the matters being thought about.



Cross-cutting Issues

There are some issues that young people need to learn about, but which are not confined to one Subject. These are the ‘Cross-cutting Issues’ and they need to be studied across the Subjects. These issues develop learners’ understanding of the connections between the Subjects, and the complexities of life.

The Cross-cutting Issues identified in the curriculum are:

- 1) Environmental awareness
- 2) Health awareness
- 3) Life skills
- 4) Mixed abilities and involvement
- 5) Socioeconomic issues
- 6) Citizenship and patriotism

(For details on cross-cutting issues, refer to the Curriculum Framework document, page 11)

Cross-cutting issues have also been built into the syllabuses of each Subject. The way in which they operate within the Subject is very similar to the generic skills. Geography provides a very good context for considering environmental and health awareness, and to understand the complex and diverse world in which we live.

ICT Integration in the AEP Curriculum

ICT is embedded as a learning/teaching tool. ICT integration framework is summarised below and cuts across all the subjects on the curriculum.

CATEGORY OF A TASK IN THE SYLLABUS	ICT APPLICATION (HOW ICT WILL BE INTEGRATED FOR THE TASK CATEGORY)
Field work	Use of cameras to take photos and record videos
Presentations in class	Use presentation application
Key words and meanings	Use online dictionary or search online
Drawing/graphics	Use publishing software, Word processor
Role play, narrations	Use audio and video recordings
Demonstrations	Use audio and video recordings and simulations
Locating and putting marks on an area	Use digital/online mapping
Present findings in graphic and written format	Use desktop publishing software or word processor

CATEGORY OF A TASK IN THE SYLLABUS	ICT APPLICATION (HOW ICT WILL BE INTEGRATED FOR THE TASK CATEGORY)
Showing data charts	Use spreadsheet software
Group discussions	Mind-mapping software
Search for extra reading materials	Download files on Internet or by sharing
Writing equations and formulas	Use equation editors
Carrying out academic research	Using the Internet and other academic applications like “Encarta”, “Britannica,” etc.
Sharing or learning with people across the world	Forming learning networks, formation of blogs, social media, emails, etc.

Integration of Special Needs Education (SNE)

In the education system, learners of different abilities study together in the same class and in some developed countries, they are taught separately. In whatever case, the following methods are important when handling the SNE learners.

Category of impairments	SNE Teaching Methods
Blind learners: Learners who cannot see totally	<ul style="list-style-type: none"> • Through touching • Use of brails • Recorded / audio materials
Low vision learners: Learners who cannot see properly	<ul style="list-style-type: none"> • Use of large print materials • Use of bold teaching materials • Right placement of learners
Deaf learners: Learners who do not hear at all	<ul style="list-style-type: none"> • Use sign language • Total communication • Use of illustrations

Category of impairments	SNE Teaching Methods
<p>Hard of hearing learners: Learners who fairly hear</p>	<ul style="list-style-type: none"> • Total communication • Speak loudly • Right placement of learners • Use of illustrations • Being more practical
<p>Dyslexic learners: Learners with reading difficulties</p>	<ul style="list-style-type: none"> • Use less written content • Talk more than writing • Breaking tasks into simple steps • Repetition in teaching • Use of audio recordings
<p>Time takers</p>	<ul style="list-style-type: none"> • Give extra time • Use remedial classes
<p>Hyper learners: Learners with attention deficit</p>	<ul style="list-style-type: none"> • Use of timely breaks in teaching.
<p>Gifted learners:</p>	<ul style="list-style-type: none"> • Involve them in extra work • Use of suitable challenging tasks
<p>Physically handicapped</p>	<ul style="list-style-type: none"> • Use of head pointers • Training to use available limbs • Creating special sitting arrangements in class

Rationale for the Geography Syllabus in AEP

This syllabus is aimed at providing the teacher with the guidance required to teach Geography to learners who will not go through the four years of the ordinary level education cycle. It is meant to cover the most critical aspects of Geography without affecting its standards. It will adequately prepare learners for the Uganda Certificate of Education (UCE). However, it requires the teacher to be very creative and innovative if learners are to acquire the same competences as those following the mainstream Lower Secondary Geography syllabus.

Nearly, all aspects of our lives are influenced by the environment, both natural and human, which we live in. In turn, our ways of life effect the environment in various ways. Geography deals with this inter-relationship between humans and their environment.

This relationship is becoming increasingly important as the population of the world grows and the world's resources remain finite.

Thus, the key issues of Geography become increasingly important: population growth; climate change; soil degradation and conservation; the use and preservation of water resources; food supply and food shortages; rural-urban drift, urbanisation and the problems of urban areas; problems of pollution of all kinds; the conservation of wild life and many related issues. Learners need awareness about the complex relationships between humans and nature; and ways of managing such relationships.

At the Lower Secondary level, Geography is seen as the study of inter-relationships between physical and human environments at local, East African and African levels, with contrast through specific case studies of other areas of the world. At this level, therefore, the emphasis is on Physical and Human Geography focusing on actual people in actual communities, rather than the more scientific study of spatial relationships which Geography becomes at higher levels.

Programme Planner

The Accelerated Education Programme (AEP) for Geography is divided into twenty-one topics which will be taught in two levels. The topics and their respective sub-topics for the two levels are indicated in the following table.

Level 1	TOPIC	DURATION (HOURS)
Term 1	Introduction	4
	Showing the Local Area on a map	9
	Maps and their Uses	14
	Ways of Studying Geography	9
Term 2	The Earth and its Movements	8
	Weather and Climate	10
	Location, Size, and Relief Regions of East Africa	6
	Formation of Major Land forms in East Africa	12
Term 3	Climate and Natural Vegetation of East Africa; and the rest of Africa	12
	Climate Change in East Africa and the World	9
	Mining in East Africa, and the Rest of Africa	15
Total		108
Level 2		
Term 1	Development of Manufacturing Industries in East Africa; and the Rest of Africa	13
	Sustainable Use of Fisheries Resources in East Africa	12
	Wildlife Conservation and Tourism in East Africa	11
Term 2	Population and Urbanization in East Africa, and the Rest of the world	15
	Further Skills in Map Reading and Map Use	10
	Location and Size of Africa	2
	The Relief Regions and Drainage of Africa	9
Term 3	Forests, Forest Resources and Forestry in Africa	9
	Irrigation Farming in Africa and China	7
	Mining and Industrial Development in China	6
Total		94

Time allocation

Geography is allocated 3 hours per week as indicated below.

GEOGRAPHY	LEVEL 1	LEVEL 2
	3 hours a week	3 hours a week

Note: Case Studies

Case Studies of limited areas of Africa and China have been included to provide studies of some areas of the world outside East Africa. They show the learners aspects of life outside East Africa, provide contrasts and comparisons with East Africa; and stress ways in which East Africa can learn from outside areas. Each case study directly links with a study of a similar topic in East Africa. They are interspersed throughout the syllabus and teachers are not expected to treat them as regional studies.

Features of this new AEP Syllabus

This AEP Geography teaching syllabus has the following features:

1) Competency

This is a general statement of what a learner can exhibit or do as a result of learning all the concepts within each sub-topic. It is stated at the top of the table for each topic in the detailed syllabus. It shows how the content will be applied in different situations.

2) Learning outcomes

These are the expected behaviour which a learner will exhibit after the study of the topic. **The teacher must ensure that all the outcomes are achieved.** They have been provided to help the teacher clarify content and scope. Where a higher outcome is stated, lower outcomes are implied. The teacher should use learning outcomes to plan his/her teaching strategies. Learning outcomes also guide in evaluation at the end of the learning process.

The learning outcomes are classified as knowledge (k), understanding (u), skill (s), generic skill (gs), values/attitudes (v/a), which are indicated in front of each learning outcome. They are meant to guide the teacher on how to approach the learning outcomes.

3) Duration

This has been provided for each topic. It is meant to guide the teacher in planning so as to cover all the content appropriately. However, the allocated time should allow for flexibility in order to cater for remedial teaching and carrying out practical activities where possible.

4) Suggested learning activities

These provide the teacher with guidance, for example, on the tasks which the learners must accomplish to acquire the learning outcomes. However, these are not the only activities since other tasks as may be suggested by the teacher may be used. The teacher should use an appropriate strategy, e.g., individual or group work, for learners to carry out the activities effectively. Teachers should also encourage learners to use a variety of resources such as the library and ICT.

5) Sample assessment strategy

These are meant to test the level of understanding for each topic. However, other assessment strategies as suggested by the teacher and textbooks that are appropriate to the topic should be used to assess the learners' achievement. The sample assessment strategies are not meant to be a spot work for end-of-cycle examinations but rather to assist the teacher in formative assessment. Some of this assessment is done by observation and can be used to assess attributes like teamwork, confidence, communication, leadership and organisational skills of learners.

6) ICT support

This shows the ICT resources that the teacher should use to further the understanding of the different concepts. The teacher should note that these are optional and only applied where they are available.

The syllabus details for all subjects are set out in three columns:

LEARNING OUTCOMES	SUGGESTED LEARNING ACTIVITIES	SAMPLE ASSESSMENT STRATEGY
The knowledge, understanding, skills, generic skills, values and attitudes expected to be learned by the end of the topic	The sorts of learning activities which include the generic skills that will help learners achieve the Learning Outcomes.	Opportunities for assessment within the learning situation

Teachers should base their lesson plans on the Learning Outcomes using the Suggested Learning Activities as a guide. These are not the only possible learning activities; therefore, teachers are encouraged to extend these and devise their own that are appropriate to the needs of their class.

Detailed Syllabus

LEVEL 1

TERM 1

Theme: Introduction to Geography

Topic 1: Introduction

Duration: 4 Hours

Competency

The learner demonstrates understanding of Geography, appreciates the importance of studying it and proposes feasible plans, written or oral, for preserving the environment.

Learning Outcomes	Suggested Learning Activities	Sample Assessment Strategy
<p>The learner should be able to:</p> <ol style="list-style-type: none"> 1) Use fieldwork or photographs to observe, name and classify human and physical features (s, gs) 2) Understand that the environment is all the things around us (u) 3) Realize that geography is a study of the relationship between people and their environment, both natural and man-made (u) 	<ol style="list-style-type: none"> 1) What is geography? In groups, learners carry out field work in the local area to: <ol style="list-style-type: none"> a) Explore and identify ‘natural’ and ‘built’ features of the local environment /surrounding by annotating photographs or labelling the environment through fieldwork sketches. b) Investigate, name and categorise features on photographs in different environments. c) As a whole class, learners contribute to a collaborative display of feature names, classifying them as ‘natural’ or ‘built’. d) Discuss, identify and list ways that they and their family use the local environment; they identify how 	<ol style="list-style-type: none"> 1) Observe learners as they discuss and amend their work; ask learners to explain their categorisation of natural and built features. 2) In conversation, ask learners to explain how people in the area around the school are affected by the physical environment; and give an

Learning Outcomes	Suggested Learning Activities	Sample Assessment Strategy
<p>4) Appreciate that the study of Geography helps us to understand how our lives are affected by the environment, and how we can preserve the environment so that it remains useful to us (a, gs)</p> <p>5) Appreciate that caring for and preserving resources in the local environment, community and country are signs of love for one's country (a, v, gs)</p>	<p>other people and animals use places in different ways.</p> <p>e) Discuss why there is need to protect the environment and develop an action plan for protecting the environment in their community.</p> <p>f) Debate and agree on what Geography means after researching on internet, books, case studies, etc.</p> <p>g) Discuss the importance of studying Geography, using examples from things they do every day, such as collecting water and deciding on when to plant or harvest certain crops.</p> <p>h) Challenge the learners to carry out a library or Internet search about what Geography is, the environment and the value of learning Geography; and make a written report.</p>	<p>example of how people have changed the physical environment.</p> <p>3) Assess the learners' manifesto/action plan and assess how logical and feasible their proposals are.</p>

ICT Support

Encourage learners to use the Internet as a source of information about geography, its nature and value to humanity.

References

- Karuggah, R. and Kibuuka, P. (2003). *Certificate Geography, Form 1*. Oxford University Press, East Africa.
- Kitooke, K.P, Nakanwagi, P. Kedi, B. & Nakayiki, O. *Geography Learner's Book, Senior 2 (2021)* Longhorn Publishers (Uganda) Ltd. Kampala, Uganda.
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Topic 2: Showing the local area on a map

Duration: 9 Hours

Competency

The learner draws maps of local and other areas and uses them to travel and guide others to move around, find out about people and their ways of life, and to communicate the geography of places.

Learning Outcomes	Suggested Learning Activities	Sample Assessment Strategy
<p>The learner should be able to:</p> <ol style="list-style-type: none"> 1) know what a map is and how this can be used to show places. (k) 2) understand the difference between a map and a photograph. (u, s) 3) understand that maps are representations of the world at different scales. (u) 4) draw a sketch map of the school and/or the local area. (s) 5) use and interpret symbols and identify features on a map using a key. (s) 	<ol style="list-style-type: none"> 1) What is a map? <ol style="list-style-type: none"> a) Learners use globes, a range of maps (including digital maps) and aerial images to investigate what a map is and what it might show. b) Learners draw a map to show a visitor to the area how to get to the school (do not tell them how to draw it). They compare and evaluate each other’s maps and identify ways to improve them. c) Through fieldwork, learners use maps and compasses to orient themselves and sketch what they can see in that direction, annotating features. d) In pairs, learners draw a map to show the route from their school to home, indicating physical and human features using a 	<ol style="list-style-type: none"> 1) Observe learners explaining what a map is and examine their written definitions. 2) Learners use their own maps to explain what the local area is like. 3) Observe what they produce to describe their findings and assess how well they express their ideas. 4) In conversation, evaluate how well learners answer questions using given maps about the relationship

Learning Outcomes	Suggested Learning Activities	Sample Assessment Strategy
6) identify directions on a map using basic compass points. (s) 7) follow routes on a map. (s) 8) use the local area maps drawn in (4) above to find information about people living in the local area. (s)	key, and then swap maps so they can find out where the other person lives. e) Learners use their own and other maps to help them ask and answer questions about their local area. f) Guide the learners to individually use a library or an on-line dictionary to find out more about what a map is and how it is constructed. They should summarise their findings.	between maps and photographs. 5) Mark the learners' research reports and evaluate their understanding of the concepts.

ICT Support

Learners use the Internet to search for different types of maps, images and meanings to better understand what a map is and what it can show.

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Topic 3: Maps and their uses

Duration: 14 Hours

Competency

The learner uses maps to move about, find out, analyse and communicate information about places.

Learning Outcomes	Suggested Activities	Learning	Sample Assessment Strategy
<p>The learner should be able to:</p> <ol style="list-style-type: none"> 1) know the main types of maps. (k) 2) know the meaning of scale, compass, direction, bearing, grid reference and symbols. (k) 3) understand that a map shows things by symbols, including colours or shading. (u) 	<ol style="list-style-type: none"> 1) Types of Maps <ol style="list-style-type: none"> a) Present examples of different types of maps and ask the learners to explain the difference between them. b) The learners suggest the type of map each one is. In groups, the learners discuss and suggest categorize into which maps can be put. (Outline maps, atlas maps, survey maps, globes (Physical, political, topographic, road/street, climate, thematic)) 2) Showing Features on a Map <ol style="list-style-type: none"> a) Using the same examples of maps used in the above sub-topic, challenge the learners to explain how different features are shown on a map. List these on the chalkboard: symbols, shading and colouring. b) Explain that maps do not show things as they appear in reality. They show things using symbols including shading and colouring. c) The learners suggest symbols which can be used to represent a 		<ol style="list-style-type: none"> 1) Give out maps, preferably survey maps or similar ones and ask questions to test all aspects of maps learnt in this topic. 2) Let the learners conduct a whole class discussion on the advantages and disadvantages of the different methods

Learning Outcomes	Suggested Activities	Learning	Sample Assessment Strategy
<p>4) interpret symbols on a map, including colours/shades. (s)</p> <p>5) estimate distance and area of features on a map using the scale. (s)</p> <p>6) use a compass to determine direction and bearings of features on a map. (s)</p> <p>7) use grids and names to find features on a map. (s)</p>	<p>farm, forest, church, mosque, etc.</p> <p>3) Types of Scale</p> <p>a) Show a photograph of a house or person and ask the learners to compare this with the real size of the house or person. Ask: If a photograph reduces the real size of a house or person by a certain amount, does it reduce all parts by the same amount?</p> <p>b) Explain that a scale does the same thing on a map.</p> <p>c) Explain that all things on a photograph or map are reduced by the same amount so, to get the real size, you multiply e.g., 1 cm on a photograph or map = represents 10 cm in real size.</p> <p>d) Guide learners to explore the concept of the representative fraction scale, e.g., 1:10</p> <p>e) Challenge the learners to measure lines on the ground and reduce them to the size of a paper and work out a representative fraction scale.</p> <p>f) In pairs, the learners:</p> <p>i) discuss and express the R. F. scale each has come up with in words. Explain that this is called a statement scale.</p> <p>ii) draw a line scale to show the same</p>		<p>used to show features on a map.</p> <p>3) Observe the learners as they discuss the advantages and disadvantages of each method. Note how logically they explain their views.</p> <p>4) In a conversation, probe the learners as they give their ideas and evaluate the extent to which they can defend their</p>

Learning Outcomes	Suggested Activities	Learning	Sample Assessment Strategy
8) appreciate that there are many types of maps and many ways of showing things on a map. (a/v)	<p>distances. This is called a linear scale.</p> <p>iii) Explain that we use this scale to estimate distance and area of features on maps.</p> <p>iv) Challenge the learners to study maps with different line scales and work out distances using the scales.</p> <p>v) Demonstrate how to measure winding distances using the linear scale.</p> <p>vi) Demonstrate how to calculate areas of features with different shapes on a map using a linear scale.</p> <p>vii) Let learners do exercises to practice this skill.</p> <p>4) Directions and Compass</p> <p>a) Using the same map (used above), ask the learners: How do you know which direction to go?</p> <p>b) Explain that maps show real directions of features and places.</p> <p>c) Let the learners swap maps and in pairs, explain directions between specific places or features on the map.</p> <p>d) Through questioning, revise compass already studied at Primary school level.</p>		<p>opinions.</p> <p>5) Mark the learners' map of the area around the school and assess the extent to which they have understood how to use a map to communicate the geography of an area.</p>

Learning Outcomes	Suggested Activities	Learning	Sample Assessment Strategy
	e) Show a map with compass directions and ask the learners for directions between specific places. f) Explain the main points of a compass. g) Let the learners individually draw a diagram showing the main points of a compass. h) Demonstrate how to determine compass bearing based on degrees of a circle. i) Present a map and challenge the learners to determine the bearing of features or places. j) Give learners a task to draw an annotated map of the area within a radius of about 200m from the school using their own scale. 5) Grid and Grid References a) Using a map, explain the meaning of a grid, including Eastings and Northings. b) Demonstrate how to find features on a map using four and six figure grid references. c) Explain that we use the four-figure grid reference to find the approximate position of a feature while the six-figure grid reference gives the exact position of the feature. d) Task the learners to describe the		

Learning Outcomes	Suggested Activities	Learning	Sample Assessment Strategy
	<p>location of features on a map using grid references.</p> <p>e) Challenge learners to individually explain what they understand by grid reference.</p> <p>6) Names or labels</p> <p>a) Using the same map (used above), let the learners work in pairs to find particular features such as a river, lake, swamp, trading centre, etc.</p> <p>b) In pairs, let the learners explain how they have been able to identify those features.</p> <p>c) Explain that sometimes the key may not tell us all features shown on the map. So, we may use names or labels against those features.</p>		

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Topic 4: Ways of Studying Geography

Duration: 9 Hours

Competency

The learner uses field work, written records, photographs, statistics and graphical drawings to learn about places; and evaluates the effectiveness of each method.

Learning Outcomes	Suggested Activities	Learning	Sample Assessment Strategy
<p>The learner should be able to:</p> <ol style="list-style-type: none"> 1) know what field work is. (k) 2) understand how to use and apply different techniques used in field work. (u) 3) use observation, interviews, questionnaires, drawings and photographs in field work. (s) 4) use maps, aerial images, photographs, graphs and charts to communicate data. (s) 5) analyse and present statistics gathered in fieldwork. (s); 	<p>Ways of studying Geography</p> <ol style="list-style-type: none"> a) Guide learners to discuss ways of finding out about people and places. Learners should consider these ways of studying Geography and begin to evaluate their effectiveness: using media; reading research; interpreting maps; analysing data and charts, etc.; interpreting reports; field study. 1) Techniques to use in doing field work: Learners should do the following: Writing up field work <ol style="list-style-type: none"> a) Challenge learners, individually or in groups to suggest their own topic, objectives and methods to collect information about the 	<p>1) Observe learners planning their field enquiry, the findings obtained and their evaluation of the process.</p> <p>2) Observe how learners present findings; they should explain how they have carried out an enquiry through fieldwork and what aspects were particularly useful.</p> <p>3) In their written field work report, assess how well the learners relate the findings to the topic and objectives of the study; and how clearly they explain the relationships between the physical environment and human activities in</p>	

Learning Outcomes	Suggested Activities	Learning	Sample Assessment Strategy
<p>6) write conclusions to summarise field work findings. (gs)</p> <p>7) know the three different angles from which photographs can be taken. (k)</p> <p>8) know the terms used to describe the different parts of a photograph. (k)</p> <p>9) appreciate the effect of perspective on oblique photographs. (v, a)</p> <p>10) differentiate between photographs and maps. (u)</p> <p>11) describe an area seen on a photograph. (s)</p> <p>12) make a sketch of an area from a photograph. (s)</p>	<p>local area.</p> <p>b) They should conduct a field study, compare findings and share opinions about different methods of data collection. (Interviews, questionnaires, measurement, sketches, data analysis.)</p> <p>2) The use of photographs</p> <p>a) Show photographs taken from the ground, a high angle and the air. Ask what the differences are. Explain the three different angles from which photographs can be taken.</p> <p>b) Learners describe the differences between the photographs.</p> <p>c) Guide learners to explore the terms used to describe the positions of features on each type of photograph: Foreground, middle ground and background; and left, middle and right to describe where things</p>		<p>the area studied.</p> <p>4) Establish the degree to which the learners have followed the route to geographical enquiry as they planned and conducted their study: Identification of issue/problem, defining objectives of the study, collection of data, presentation and recording of the findings, analysis and interpretation, making effective conclusions, evaluation and suggestions for further studies.</p> <p>5) Observe learners as they explain the differences between the photographs and note how well they relate them to the shapes and appearance of the features. See how well they respect each other's views.</p> <p>6) In a conversation, ask learners to explain why we do not use</p>

Learning Outcomes	Suggested Activities	Learning	Sample Assessment Strategy
<p>13) appreciate that field work and photographs are important because Geography is the study of the real world. (v, a, gs)</p> <p>14) use field work to study a trading centre, town or other urban area or any other area. (s, u)</p>	<p>are on ground and oblique photographs. For vertical aerial photographs, you use top and bottom or left and right.</p> <p>d) Challenge learners to explain why it is useful to draw a sketch to show the area on a photograph.</p> <p>e) Demonstrates how to draw a sketch of a photograph. Learners summarise the steps involved.</p> <p>f) Learner's practice drawing a sketch of a photograph.</p> <p>g) Give learners a topic or area to find relevant photographs on the Internet or textbooks.</p>		<p>compass directions while describing positions of features on photographs.</p> <p>7) Observe the learners as they draw sketches of photographs and see whether they follow the steps logically.</p> <p>8) In a conversation, ask the learners to explain why, on a sketch, we do not include all details in the photograph.</p> <p>9) Assess learners' sketches to find out how well they represent the photographs from which they are drawn.</p>

ICT Support

Learners use the Internet to find photographs of different places and types.

References

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Term 2

Theme: Introduction to Geography

Topic 5: The Earth and Its Movements

Duration: 8 Hours

Competency

The learner uses the knowledge of the movements of the earth to explain time and weather patterns, plan his/her own day to day activities, and gives feasible advice to the local community on how to align their ways of life to the movements of the earth relative to the sun.

Learning Outcomes	Suggested Learning Activities	Sample Assessment Strategy
<p>The learner should be able to:</p> <p>1) understand the relationship between the Earth and the sun and how this affects temperatures and seasons. (u)</p> <p>2) understand how the rotation causes day and night. (u)</p>	<p>1) Rotation of the Earth</p> <p>a) Guide learners to explore that the Earth moves, not the sun – proved by scientists like Copernicus.</p> <p>b) Using a globe or football, spin round to show the axis. The Earth spins on an axis.</p> <p>c) Ask learners: In which direction are we moving in relation to the sun: at sunset, at sunrise?</p> <p>d) Ask where we are in relation to the sun: in daytime; at night?</p> <p>e) Demonstrate this with a globe or football and light source.</p> <p>f) Individually, learners draw their own diagrams and label them, writing a short explanation of how the rotation of the earth causes</p>	<p>1) Observe learners as they demonstrate their models and give a verbal explanation of the processes at work.</p> <p>2) Examine learners' models and drawn diagrams, and their verbal and written explanations for accuracy and appropriateness of the vocabulary.</p>

Learning Outcomes	Suggested Learning Activities	Sample Assessment Strategy
<p>3) know how we can locate places on a globe by using latitude and longitude. (u)</p> <p>4) calculate time using longitude. (s)</p> <p>5) appreciate how the revolution of Earth affects the way people live: the effect of temperatures and seasons, lengths of day and night. (a, v, gs)</p>	<p>day and night.</p> <p>a) Learners investigate webcams in different cities, East and West of where they are, to compare time zones and describe what is happening there; they use a map of world time zones to help them make the comparison.</p> <p>2) Revolution of the Earth</p> <p>a) Explain that the Earth revolves or moves round the sun once a year.</p> <p>b) Demonstrate this with a globe or ball moved round the classroom with a source of light in the middle.</p> <p>c) Demonstrate and draw diagrams to show the meaning of the axis being tilted.</p> <p>d) Demonstrate through questions that poles do not move and equator moves round fastest.</p> <p>e) Move tilted globe or ball, with poles marked, round the 'sun'. Ask which parts of the Earth are tilted towards or away from the sun at different times. (April – August – north tilted towards, south away; October – February – south tilted towards, north away. March and September:</p>	

Learning Outcomes	Suggested Learning Activities	Sample Assessment Strategy
	<p>sun overhead at equator).</p> <p>f) Ask: When will it be hotter or colder: when we are tilted away or towards the sun?</p> <p>g) Explain and demonstrate that this causes seasons: Hot or summer when tilted towards sun, and cold or winter when titled away from sun.</p> <p>h) Explain spring: moving from winter to summer; and autumn (American: fall): moving from summer to winter.</p> <p>i) Ask why places near equator do not have hot and cold seasons.</p> <p>j) Move globe or ball to position when north is tilted towards the sun: for how long will a place near the North Pole be in the sun; for how long will a place near the South Pole be in the sun?</p> <p>k) Explain the different lengths of day and night in summer and winter.</p> <p>l) Learners research on the Internet or text books for any sets of diagrams or pictures which explain the seasons.</p> <p>3) Latitude and longitude</p> <p>a) Ask how we use lines on a map to find places. Use grid.</p>	<p>3) In conversation, ask learners to</p>

Learning Outcomes	Suggested Learning Activities	Sample Assessment Strategy
	<p>b) Explain that we can draw lines on a globe like a grid on a map, but they are circles.</p> <p>c) Demonstrate with globe and diagrams: lines going around the world through north and south poles are longitudes; lines going around at right angles to these are largest half way from the poles (the equator) and get smaller towards the poles.</p> <p>d) Guide learners to draw a diagram to show how latitude and longitude are measured by angles.</p> <p>e) Guide learners to identify examples of longitude and latitude of places in Uganda using Atlas maps.</p> <p>f) Learners use Atlas maps to practise latitude and longitude.</p> <p>g) Explain through demonstration and questioning special lines using globe and light source as above:</p> <p>h) Sun's rays come from directly overhead near equator. Tropics of Cancer (north) and Capricorn (south) are the farthest away from the equator where the sun is overhead only one day a year.</p>	<p>explain how longitude and latitude are used to locate places on Earth.</p> <p>4) Learners explain how longitude is used to calculate time and produce written calculations of time difference.</p> <p>5) Learners identify a place in another climate zone, explain how daily life might differ and explain why.</p> <p>6) Assess the learners' written work to find out how accurate their calculations are and how logical their explanation is.</p>

Learning Outcomes	Suggested Learning Activities	Sample Assessment Strategy
	<p>i) When Earth is tilted away from sun in winter, places near the poles will not see the sun. When Earth is tilted towards the sun in summer, places near the poles will receive sun for 24 hours. The Arctic (north) and Antarctic (south) circles show areas where this happens at least one day per year.</p> <p>4) Time</p> <p>a) Ask and demonstrate: If Earth rotates round once in 24 hours: how many degrees does it go through: in 24 hours? In 1 hour? The Earth moves round on its axis completely i.e., 360° in 24 hours, so 15° in 1 hour.</p> <p>b) Using diagrams, guide learners to understand how time is measured from a line of longitude which passes through Greenwich in London. When it is noon at Greenwich, we count how many degrees we are east or west of Greenwich e.g., Uganda is about 45° east of Greenwich. So, how many hours does the sun reach us before Greenwich?</p>	

Learning Outcomes	Suggested Learning Activities	Sample Assessment Strategy
	<p>c) We can find the time in any place by knowing our own time and adding 1 hour for every 15° if the place is east of us and subtracting 1 hour for every 15° if the place is west of us.</p> <p>d) Learners do some exercises to find time in different places.</p> <p>e) Learners search the Internet to find maps of world time zones.</p>	

ICT Support

Learners search the Internet for videos and simulations of rotation and revolution of the Earth; and webcams in different cities in the Western and Eastern hemispheres to appreciate the movements of the Earth and their effects.

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Topic 6: Weather and Climate

Duration: 10 Hours

Competency:

The learner demonstrates understanding of the main elements of the weather, their causes and how to measure them and the influence of weather and climate on human activities.

Learning Outcomes	Suggested Learning Activities	Sample Assessment Strategy
<p>The learner should be able to:</p> <ol style="list-style-type: none"> 1) understand the differences between weather and climate. (u) 2) understand the elements of weather and how they are measured. (u) 3) carry out a project to observe, measure and record the elements of 	<ol style="list-style-type: none"> 1) Weather and climate <ol style="list-style-type: none"> a) In groups, let the learners go outside, observe and describe the weather at the moment. b) Primary revision: Learners list all the elements used to describe the weather, including sunshine, wind, clouds, rainfall, temperature, humidity, pressure. c) These describe the weather. Ask “What is the difference between weather and climate?” Weather describes the conditions of the atmosphere at a particular moment or for a day. Climate describes what the weather of a place is usually like. 2) Measurement of weather <ol style="list-style-type: none"> a) Ask learners to name any instruments they know for recording the weather. b) List these on the chalk board and 	<ol style="list-style-type: none"> 1) Observe learners as they discuss and explain their weather data and how weather influences everyday activity. Note how well they cooperate and respect each other’s views. 2) Evaluate learners’ use of appropriate terminology as they record data using instruments and report back.

Learning Outcomes	Suggested Learning Activities	Sample Assessment Strategy
<p>weather, and make suitable instruments. (s)</p> <p>4) know the terms used for plotting weather on maps. (k)</p> <p>5) know the names and characteristics of the main kinds of clouds and rainfall. (k)</p> <p>6) appreciate that people's lifestyles are influenced by the type of weather and climate. (a, v, gs)</p> <p>7) understand the positive</p>	<p>add any not named.</p> <p>c) Explain that places where all elements of the weather are measured are called Weather Stations.</p> <p>d) If possible, learners visit a working weather station to research the components of a weather station and how they work. They name, describe and practise using the tools and approaches they have seen and make their own equipment, where practical, such as Okta grids for measuring cloud cover and rain gauges.</p> <p>e) Show diagrams, or ask learners to investigate, any weather instruments not seen at the weather station and explain their use.</p> <p>f) Learners work in groups, using their collected weather data to create charts and graphs that help to explain daily variations. Groups make a presentation about weather and climate, and everyday life, in their own or a contrasting locality.</p> <p>g) Ensure that learners understand the following key terms: thermometer; rain gauge; measuring cylinder; sunshine</p>	<p>3) Observe group dialogue as they prepare their presentation and their explanation of the work produced.</p> <p>4) Observe learners as they draw weather maps and graphs and note how logically they follow the right steps and how accurately they represent the data given.</p> <p>5) In a conversation, ask the learners to explain the benefits of representing weather on maps and graphs.</p> <p>6) In the written</p>

Learning Outcomes	Suggested Learning Activities	Sample Assessment Strategy
<p>and negative effects of weather on their own lives and those of their communities. (u)</p> <p>8) draw and use climate graphs of local and other areas to describe climate. (s)</p>	<p>recorder; wind vane; anemometer; barometer; humidity; hygrometer; relative and absolute humidity; Stevenson screen.</p> <p>3) Recording weather</p> <p>a) In groups, learners make any simple weather instruments they can e.g., rain gauge (straight sided tin), wind vane.</p> <p>b) Group learners and guide them to start a weather diary to record daily weather, either by instruments, if available, or by observation e.g., dry, wet, very wet; sunny, cloudy; hot, warm, cold; wind strong, mild, calm; wind direction (from); thunder/lightening, etc.</p> <p>c) Learners use simple statistics to record the weather.</p> <p>d) Guide learners to carry out a project to observe, measure and record the elements of weather in the local area.</p> <p>4) Recording weather on maps and graphs</p> <p>a) Explain and show examples of recording weather on maps by lines,</p>	<p>reports, learners should clearly relate people's lifestyles to the climate of each zone.</p>

Learning Outcomes	Suggested Learning Activities	Sample Assessment Strategy
	<p>symbols or shading e.g., temperature (isotherms), rainfall (isohyets), pressure (isobars): “lines of equal...” Elicit ending.</p> <p>b) Learners use examples of maps and weather data to do an exercise based on isolines.</p> <p>c) Guide learners to practice how to record weather on graphs: line graphs for temperature; bar graphs for rainfall.</p> <p>d) Give a set of figures for learners to draw graphs.</p> <p>e) Learners keep written/digital weather diaries and a diary of day-to-day activities, presenting these together with an explanation of how weather can influence day-to-day human activity.</p> <p>f) Learners work in groups to research and explain how the local climate influences their lives, contrasting this with lifestyles in a different climate zone. They give examples of how extreme weather events and the effects of climate change affect people’s lives here and elsewhere in the world.</p>	

Learning Outcomes	Suggested Learning Activities	Sample Assessment Strategy
	<p>5) Clouds and rainfall</p> <p>a) Through questioning, guide learners to revise the causes of rain. (Air rises and cools and cool air can contain less water vapour, so some turns into drops of water).</p> <p>b) Show pictures of cloud types and/or learners go outside and see clouds as they appear in reality: depends on height, shape and thickness:</p> <ul style="list-style-type: none"> i) Cirrus: (very high, thin) ii) Stratus: (lower, thick and flat) iii) cumulus: (low, thick and tall often growing upwards) iv) cumulonimbus (low, thick, tall and causing rain) <p>c) Learners look for pictures of other cloud types on the Internet.</p> <p>d) Types of rain: Challenge learners to explain the different types of rain and what causes rain. Type depends on what causes air to rise:</p> <ul style="list-style-type: none"> i) relief rain: air rises due to passing over high hills ii) convectional: air rises because it gets hot in daytime iii) frontal: Two types of air/wind meet 	

Learning Outcomes	Suggested Learning Activities	Sample Assessment Strategy
	and hotter air moves up over cooler air. e) Ask where and when in local area each type is common.	

ICT Support

Learners use ICTs to record, manage and communicate their weather data.

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Theme: Introduction to East Africa

Topic 7: Location, Size and Relief Regions of East Africa

Duration: 6 Hours

Competency:

The learner understands East Africa; the main relief regions it is divided into and development potentials and challenges associated with each region.

Learning Outcomes	Suggested Learning Activities	Sample Assessment Strategy
<p>The learner should be able to:</p> <p>1) know the East African countries, their approximate population and area. (k)</p> <p>2) appreciate that East African countries vary greatly in area and population. (a, v, gs)</p> <p>3) know the main relief regions of East Africa. (k)</p>	<p>1) The countries</p> <p>a) Learners answer questions about the countries making up East Africa to determine what they know about their comparative size and population. They then work in groups to research and create their own Table of information regarding this, comparing results and explaining their use of sources.</p> <p>b) Explain that answers may differ as there are two definitions; countries linked into a geographical region and countries which have joined the Economic Community of East Africa. This expands as more countries join. Ask which countries are in each.</p> <p>c) Explain that in this syllabus, we are using the traditional idea of East Africa as Uganda, Kenya and Tanzania.</p> <p>d) Learners search textbooks or internet to find information on the size and population of the three East African countries, summarise it in a Table.</p>	<p>1) Observe learners as they collect information and create their graphs and diagrams: ask them to describe what their maps show and how accurate they believe the information to be.</p> <p>2) Observe learners as they describe and locate key landscape features through fieldwork and research on their map and add correctly labelled</p>

Learning Outcomes	Suggested Learning Activities	Sample Assessment Strategy
<p>4) draw a map to show the main relief regions of East Africa. (s)</p> <p>5) understand the relationship between relief and the occurrence of natural hazards. (u)</p>	<p>2) Physical or relief regions</p> <p>a) Use wall map, sketch map on BB or Atlas relief map of East Africa to ask learners questions e.g., position and names of highland areas, plateaus, coastal plains, etc.</p> <p>b) Challenge the learners to name main relief regions on sketch map.</p> <p>c) Learners study one or more local physical features through fieldwork: collecting samples, taking photographs and creating a labelled map display to show the physical environment and the influence of relief on weather and climate.</p> <p>d) Learners add the location of some past and present natural hazards and add a short piece of text explaining what happened/might happen and how severe the threat is.</p> <p>e) Learners work in groups to draw a map showing relief regions and collaborate to identify and explain regions where there is or has been a high hazard risk recently.</p>	<p>images.</p> <p>3) Listen to learners' explanations of their map and judgement of hazardous areas.</p> <p>4) Models and diagrams produced by learners will reveal their level of understanding as they explain the steps involved in the process.</p>

References

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Topic 8: Formation of Major Land forms in East Africa

Duration: 12 Hours

Competency:

The learner understands how each of the main types of land forms in East Africa was formed, the main types of rocks and how these affect the lives of people.

Learning Outcomes	Suggested Learning Activities	Sample Assessment Strategy
<p>The learner should be able to:</p> <ol style="list-style-type: none"> 1) know the main types of land forms and drainage features of East Africa. (k) 2) understand how igneous, sedimentary and metamorphic rocks are formed and how each influences land forms. (u) 3) understand the process of weathering and how weathered 	<p>Guide learners to list the main land forms including volcanoes, mountain ranges, plateaus, rift valleys and basins; as well as major rivers and lakes.</p> <ol style="list-style-type: none"> 1) Types of rock <ol style="list-style-type: none"> a) If possible, show the three types of rock. Explain that there are three types of rock (Link to work in chemistry): <ol style="list-style-type: none"> i) Metamorphic rocks e.g., slate, quartzite, schist ii) Igneous/ volcanic rocks e.g., basalt, granite, pumice iii) Sedimentary rocks e.g., marble, sandstone, limestone. b) In groups, learners research in text book or internet how each type is formed. Group findings/ feedback to whole class discussion. c) Guide learners to understand the relationship between rocks and the formation of land forms. 2) Formation of land forms 	<ol style="list-style-type: none"> 1) Observe how well learners make links when explaining a landscape between the appearance, geology and the process involved. 2) Observe how effectively learners express their views about living near a particular type of feature e.g., a volcano. Note how well they explain why volcanic areas

Learning Outcomes	Suggested Learning Activities	Sample Assessment Strategy
<p>rock particles form the basis of soil. (u)</p> <p>4) understand how each of the main types of land forms was formed: by rocks themselves or by the rocks being worn or eroded away. (u)</p> <p>5) understand the relationship between drainage and land forms. (u)</p> <p>6) recognize the land forms and other physical features on photographs. (s)</p>	<p>i) Ask learners: are the largest areas of East Africa mountains, plains or plateaus?</p> <p>ii) Explain that most areas are plateaus i.e., high but flat areas. The plateaus are interrupted by a. mountains; b. rift valleys; c. plains on the coast, each formed in different ways.</p> <p>3) Structural features:</p> <p>a) Faulting</p> <p>i) Ask: where do most earthquakes occur in East Africa?</p> <p>ii) Show diagrams of faulting. Ask, if there is a fault or crack, what might happen to the land along the fault.</p> <p>iii) Explain with diagrams: earthquakes; faults; rift valleys; block mountains.</p> <p>iv) Show a map of East Africa and ask where the rift valleys and Block Mountains are: east and west rift valleys and block mountain (e.g., the Rwenzoris).</p> <p>v) Learners look for diagrams of faulting on Internet or in text books.</p> <p>b) Volcanicity</p> <p>i) If possible, learners watch a video explaining the formation of a volcano, and summarise what they have observed.</p>	<p>3) or former volcanoes often have a high density of population.</p> <p>4) Observe how well learners use correct terminology and locate features accurately on maps.</p>

Learning Outcomes	Suggested Learning Activities	Sample Assessment Strategy
7) locate the examples of landforms on maps of East Africa. (s)	<ul style="list-style-type: none"> ii) Ask what happens when a volcano occurs and where these occur in East Africa. iii) Use diagrams and questions to explain formation of volcanoes, with examples from East Africa. 	
8) appreciate that the rocks, landforms and drainage affect the way people live. (v/a, gs)	<ul style="list-style-type: none"> iv) Learners list or debate the advantages and problems of living in a volcanic area. v) Learners look for diagrams and pictures of volcanoes in East Africa on Internet or in textbooks. 	
9) understand the main concepts of plate tectonics and how this has led to the formation of the main physical features of East Africa. (u)	<ul style="list-style-type: none"> c) Warping <ul style="list-style-type: none"> i) Explain that most of East Africa is a plateau. Ask if they live on a plateau. What is a plateau? – high and fairly flat although cut into by rivers. ii) Using a diagram, show how the plateau can be warped or sink down slightly in places. iii) Challenge learners to suggest the possible causes of warping. iv) Learners suggest where, in East Africa, this has happened most (Lake Victoria basin). 	
10) understand the characteristics of	<ul style="list-style-type: none"> d) Drainage <ul style="list-style-type: none"> i) Ask learners what lakes are. In what type of land forms are lakes likely to form? (rift valleys and warped basins e.g. Lake Victoria) 	

Learning Outcomes	Suggested Learning Activities	Sample Assessment Strategy
<p>important kinds of physical features in East Africa, including mountain ranges, volcanoes, plateaus, basins and rift valleys. (u)</p> <p>11) study through field work any of the above physical features in the local area. (s)</p> <p>12) understand how their own lives and the lives of their communities are affected by physical</p>	<p>ii) Ask learners what a river is and how rivers form. Where in East Africa are rivers likely to start? (highlands and lakes)</p> <p>iii) Show a wall map or a chalkboard map showing main lakes and rivers of East Africa. Learners copy the map into their books.</p> <p>iv) If possible, learners watch a video explaining how rivers form, and the different features found at different stages of the river profile.</p> <p>4) Erosional features</p> <p>a) In pairs, learners discuss and explain what happens to the soil when it rains heavily.</p> <p>b) Guide learners to understand that each of the types of landscape they have learnt about can be eroded or washed away.</p> <p>c) Ask learners what different forces can erode or wash away the land and rocks.</p> <p>d) Through questioning, guide learners to explore how each of the following erosional forces affects landscape: rain, the sea or lake.</p> <p>e) Learners look up erosion and its effects</p>	

Learning Outcomes	Suggested Learning Activities	Sample Assessment Strategy
<p>features, including natural hazards. (u)</p> <p>13) understand through case studies how the physical features affect the lives of people in selected areas of East Africa. (u)</p> <p>14) draw diagrams to show the formation of important physical features. (s)</p>	<p>on landscape on Internet or in textbooks.</p> <p>5) Erosion by running water</p> <p>a) Guide the learners to go outside the classroom and observe any steep slope.</p> <p>b) Ask: What happens to the soil when it rains? Observe a gentle area. What happens to some of the soil which is washed away?</p> <p>c) If possible, learners visit a river or stream and observe it, or ask those who have seen rivers: how can the river wash away the land? What happens to some of the soil washed away? Observe deposition.</p> <p>d) If possible, learners visit a river or a stream to investigate the stages of a river and main features of river valleys to identify these features: V-shaped valleys, waterfalls, rapids, gorges, meanders, flood plains, alluvial fans, deltas, etc.</p> <p>e) Learners look up each of these features on the internet or in text books and find related photographs and diagrams of the features.</p> <p>6) Erosion by lake or sea</p> <p>a) If possible, learners visit a lake, observe and ask:</p>	

Learning Outcomes	Suggested Learning Activities	Sample Assessment Strategy
	<ul style="list-style-type: none"> i) how does the water move? ii) what causes it to move? iii) what effects does this have where the waves break? iv) where does the material on the lake shore come from? <ul style="list-style-type: none"> b) Using diagrams and photos, guide learners to understand coastal erosion: cliffs, caves, arches, stacks, etc. c) Using diagrams and questions, guide learners to understand coastal deposition: beaches, dunes, spits and bars, etc. Learners draw the diagrams in their books. <p>7) Importance of physical features</p> <ul style="list-style-type: none"> i) Guide learners to discuss how the features affect their own lives, and the lives of others. 	

ICT Support

Learners search the Internet for videos and simulations of landform forming processes; and information about effects of different landforms on the physical and human environments.

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Term 3

Topic 9: Climate and Natural Vegetation of East Africa and the Rest of Africa

Duration: 12 Hours

Competency:

The learner understands the main types of climates in East Africa and the rest of Africa, how the climate influences vegetation and appreciates climate and vegetation as natural resources which can benefit the present and future generations.

Learning Outcomes	Suggested Learning Activities	Sample Assessment Strategy
<p>The learner should be able to:</p> <p>1) understand the characteristics of the climates of Uganda, East Africa and the rest of Africa and the factors influencing them. (u)</p>	<p>1) Factors affecting climate</p> <p>a) Learners recap knowledge to identify the key factors influencing climate in East Africa.</p> <p>b) In pairs, learners:</p> <p>i) select sources to answer given questions and use research to accurately complete climate zone maps of East Africa and Africa.</p> <p>ii) add a key to each map to show vegetation of East Africa and the Rest of Africa.</p> <p>iii) evaluate another pair's map(s) and edit their work accordingly.</p>	<p>1) Listen to learners responses to the question: Why many people's way of life is less affected by climate today than it was in the past.</p> <p>2) Note how well learners relate lifestyles to advancement in science, technology and</p>

Learning Outcomes	Suggested Learning Activities	Sample Assessment Strategy
<p>2) understand through fieldwork, the characteristics of vegetation and how vegetation is affected by the climates. (u)</p> <p>3) draw climate graphs of local and other areas and describe climates using these graphs. (s)</p> <p>4) draw maps showing the climates and vegetation of East Africa, and of Africa. (s)</p> <p>5) recognise and describe types of vegetation</p>	<p>c) Through questioning, guide learners to revise the seasons and apparent movement of the sun.</p> <p>d) Ask learners when the northern and southern hemispheres are tilted towards the sun.</p> <p>e) Explain that this affects the angle of the sun at midday. In March and September, the sun is overhead at noon on the Equator. From March to September, it is overhead at noon north of the Equator, between Equator and Tropic of Cancer.</p> <p>2) Temperature and rainfall</p> <p>a) Guide learners to revise Topic 6 by questioning: Why do most places in East Africa have a hot climate? Which places are cooler and why?</p> <p>b) Revise by questioning the type of rainfall caused when air gets hot and rises.</p> <p>c) Through discussion, learners explore the most common type of rainfall received in East Africa and reasons why this is so: (convectional because most places are hot).</p>	<p>the rising levels of urbanisation.</p> <p>3) Converse with the learners and probe them to clarify and cite examples of how changes in technology have made some communities less dependent on nature, especially climate. Note how well learners can defend their views and also link the previous ways of life to the climate of the area.</p>

Learning Outcomes	Suggested Learning Activities	Sample Assessment Strategy
<p>from photographs. (s)</p> <p>6) understand through case studies how selected climates and types of vegetation affect the way of life of the people in those areas. (u)</p> <p>7) appreciate that modern technologies and urbanisation have made people less dependent on the climate. (v, a, gs)</p> <p>8) appreciate the dangers of the overuse of the natural</p>	<p>d) Through questioning, guide learners to revise Topic 5: Ask: When is the northern hemisphere tilted towards the sun? When is the southern hemisphere tilted towards the sun? What will be the hottest months in East Africa north of Equator; and the hottest months in the places south of the Equator?</p> <p>e) Learners discuss and suggest when most rain occurs; at the hottest or coolest time.</p> <p>f) In groups or pairs, learners discuss and suggest other factors affecting temperature: height; other factors affecting rainfall: distance from sea or lake.</p> <p>3) Types of climate</p> <p>a) Show a climate graph for each type of climate, un-named.</p> <p>b) Learners: describe climate from the graph; answer questions and describe type of climate. (Use two Savannah graphs for north and south).</p>	

Learning Outcomes	Suggested Learning Activities	Sample Assessment Strategy
<p>vegetation. (v, a, gs)</p> <p>9) appreciate the need to love and care for their local area, community and country by replanting the vegetation in areas where it has been cleared.</p>	<p>c) Show all climatic regions on a wall or Chalk board map. Learners copy the map into their books.</p> <p>d) Learners use climate graphs to describe the following climates and to answer questions related to the climates:</p> <ul style="list-style-type: none"> i) Equatorial ii) Savannah iii) Semi-arid iv) Mountain climates <p>4) Vegetation</p> <p>In pairs, learners study photographs of each type of vegetation or search the internet on each type of vegetation. They describe the vegetation and suggest the type of climate it comes from. Learners give reasons to support their views in each case.</p> <p>5) How people live</p> <ul style="list-style-type: none"> a) Show a climate graph for each type of climate, un-named. b) Explain that traditionally, the way people lived depended mainly on the climate. 	

Learning Outcomes	Suggested Learning Activities	Sample Assessment Strategy
	<p>c) For each of the photographs used in the previous activity, learners suggest how the climate affects the way people in that area live; the types of farming they do, and give reasons to support their views.</p> <p>d) Ask why many people’s way of life is less affected by the climate these days.</p> <p>6) Other factors affecting the climates of Africa</p> <p>a) Revision: Ask what will happen to air when the sun is overhead and what this will cause. (Air will rise, causing convectional rain)</p> <p>b) Through questioning, guide learners to explore how the rising air causes winds to blow from north and south towards the rising air.</p> <p>c) Show the diagram and map of the winds caused by this situation: north east trades and south east trades. Guide learners to understand the Inter-tropical convergence zone (ITCZ): an area of rising air and heavy rain.</p>	

Learning Outcomes	Suggested Learning Activities	Sample Assessment Strategy
	<p>d) Learners look up Inter-tropical Convergence Zone on Internet or in text books and find out about its position, seasonal movements and effects on climate.</p> <p>e) Through questioning, guide learners to explore the relationship between the overhead sun, ICTZ, wind movement and rainfall pattern in Africa.</p> <p>f) Challenge the learners to use the knowledge learnt in East Africa to suggest the effect of climate on the way of life of the people in each climatic zone of Africa.</p>	

ICT Support

Learners search the Internet for videos showing migration of the ICTZ and how it affects planetary winds and rainfall distribution along the way.

References

- Irandu, E., M. (2000). Target Secondary School Geography; Form 2 Student's Book. Longhorn Publishers (K) Ltd., Nairobi. pp. 58-80.*
- Karuggah, R. and Kibuuka, P. (2003). Certificate Geography, Form 1. Oxford University Press, Nairobi.*

Topic 10. Climate Change in East Africa and the World

Duration: 9 Hours

Competency:

The learner understands climate change; evaluates regional and global efforts made to reduce it and takes part in activities aimed at slowing down climate change and its effects.

Learning Outcomes	Suggested Learning Activities	Sample Assessment Strategy
<p>The learner should be able to:</p> <ol style="list-style-type: none"> 1) understand the concept of climate change and its indicators. (u) 2) understand the possible causes of climate change and how climate change may affect Uganda and the rest of East Africa. (u) 3) draw flow diagrams to show the causes of climate change. (s) 	<ol style="list-style-type: none"> 1) The meaning of climate change and its causes <ol style="list-style-type: none"> a) In groups, learners research the meaning of climate change using different sources, including the internet, and think critically about the definitions before reporting back with the one they have agreed upon. b) Challenge the groups to explain the difference between natural climate change and the rapid climate change that is currently happening and attributable to human activity. c) Learners investigate how some degree of global warming makes this planet habitable – at just the right temperature for us and other life to flourish. 	<ol style="list-style-type: none"> 1) Listen to learners as they explain the distinction between climate change and human-induced climate change. Evaluate their ability to cooperate and create knowledge and how well they respect each other’s opinions. 2) In a conversation, look for learners’ ability to analyse issues and processes and point out salient contrasts.

<p>4) understand possible ways in which local communities and government can reduce the effects of climate change. (u)</p> <p>5) participate in tree planting and other activities which might alleviate the effects of climate change in their own communities/school. (v, a)</p> <p>6) appreciate the need for people and governments to take actions to reduce the effects of climate change. (a, v, gs)</p>	<p>d) Learners research the causes of global warming in <i>text books or internet</i> and create their own diagrams to show the global warming process/green-house warming.</p> <p>2) Effects and control measures to climate change</p> <p>a) Role Play: Learners work in groups, taking on the roles of government ministers with different views about the relative importance of people, the economy and the environment. Some learners prepare a case for building more roads and cars and burning more fossil fuels, others in the group want a greener economy. Others act as advisors offering some solutions to the effects of climate change.</p> <p>The groups use newspaper headlines from the region to help them to gather the views.</p> <p>b) In groups, learners discuss and suggest how climate change can be prevented or slowed down.</p>	<p>3) Ask learners to produce some diagrams of global warming. Evaluate how well their labels and descriptions explain the balance or greenhouse warming.</p> <p>4) Observe learners as they carry out the tree planting project and assess how well they share responsibilities and apply the skills learnt in other subjects.</p> <p>5) In a conversation, ask learners to justify every step they take and assess the relevance of their procedure.</p> <p>6) In the written project report, evaluate how effectively the learners can</p>
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	<p>3) Action against Climate Change</p> <p>a) In groups, learners prepare and maintain a tree nursery bed. They plant the seedlings on school land or in the local community, nurture the trees and write a report about the activity.</p> <p>b) Task the learners to carry out a field work study of a local area to find out the indicators of climate change, causes, effects, and suggest mitigation and adaptation strategies.</p>	<p>communicate their experiences and evaluate the whole process.</p> <p>7) Read the field work reports and assess the learners' ability to systematically follow the route to Geographical enquiry and how well they use geographical terminology to communicate their findings.</p>
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ICT Support

Learners use the Internet to find out about global warming and climate change.

References

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Theme: Mining and Manufacturing

Topic 11: Mineral Resources and Mining in East Africa and the Rest of Africa

Duration: 15 Hours

Competency

The learner appreciates the main mineral resources found in East Africa and Africa, the methods used to extract them, the factors that favour mining and how minerals can contribute to the development of countries.

Learning Outcomes	Suggested Learning Activities	Suggested Assessment Strategy
<p>The learner should be able to:</p> <ol style="list-style-type: none"> 1) understand what a mineral is and why some minerals are valuable. (u) 2) locate the main mining centres on the map of East Africa. (s) 3) understand the use of mineral resources in the 	<ol style="list-style-type: none"> 1) Minerals and mining <ol style="list-style-type: none"> a) Learners have five minutes to work in pairs to name things in the classroom or things they use that are made of minerals. b) Pairs feedback to whole class. c) Learners explain what a mineral is and give examples of minerals in East Africa. d) Pairs group objects and artefacts that they might find in their community into those made from minerals and non-minerals. Pairs feed their ideas into a whole-class discussion. e) Ask learners whether all minerals are valuable and the difference between a valuable mineral and other minerals. f) Guide learners to understand that although all rocks are made of minerals, mining is only concerned 	<ol style="list-style-type: none"> 1) Listen to learners during pairs work to evaluate learners' understanding of minerals. 2) Examine the Tables completed by learners in order to explore how accurately they have described minerals. 3) Evaluate how well learners have understood from class feedback, explaining and

Learning Outcomes	Suggested Learning Activities	Suggested Assessment Strategy
<p>development of any two industries in Uganda. (u)</p> <p>4) understand the methods of mining used for different minerals and their problems. (u)</p> <p>5) draw flow diagrams to show the main stages and methods of mining. (s)</p> <p>6) recognize types and consequences of mining on photographs. (s)</p> <p>7) understand the effects of mining on the environment. (u)</p>	<p>with minerals which are valuable because they have uses.</p> <p>2) Locating Mining Areas</p> <p>a) Show a map of the main mining sites in East Africa, and the minerals mined. Or ask the learners to look up the map on Internet or in textbooks.</p> <p>b) Using the map of the main mining sites, learners work in pairs to make a list for each East African country in four columns: name of mineral, mining sites, uses of mineral, exported or used locally. (Note: This should show only main minerals, not every mineral and site)</p> <p>c) Pairs compare their list with another pair to explain what the map and the list they have made show.</p> <p>3) Factors affecting mining</p> <p>a) Explain to the learners that not all valuable minerals are worth mining.</p> <p>b) In groups, learners discuss and suggest factors which may affect whether a mineral is mined or not.</p> <p>c) Conduct class feedback from groups and supplement where necessary.</p> <p>4) Types of Mining</p> <p>a) Use a photograph and draw a diagram of an open cast mine.</p>	<p>expanding, if necessary, to ensure all the objective.</p> <p>4) Examine diagrams produced by learners to explain the differences between open cast and underground mining, with examples from East Africa for accuracy.</p> <ul style="list-style-type: none"> • Observe as learners discuss the dangers of each kind of mining and the effect of each kind on the environment to establish their

Learning Outcomes	Suggested Learning Activities	Suggested Assessment Strategy
8) appreciate the positive and negative contribution of mineral resources to development. (v, a)	Learners use the diagram to describe the mining. b) Learners convert the diagram of an open cast mine into a flow diagram showing the stages of mining. c) Working in small groups and using the map showing the main mining sites, learners list examples of open cast mining in East Africa.	understanding of the concept. <ul style="list-style-type: none"> Learners explain with examples the contributions mining can make to the development of East African countries and the dangers of this development only benefiting a few people.
9) appreciate that the benefits of mining often go mainly to overseas companies or a local elite only. (a, v, gs)	d) Learners suggest the advantages and possible dangers of open cast mining; including how this might damage the environment. e) Groups compare their ideas with other groups, and then conduct whole-class discussion. 5) Underground mining	Observe how well they are able to explain these dangers using examples and evidence.
10) understand the physical and economic problems facing mining. (u)	a) Using the map showing the main mining sites, learners list minerals mined underground in East Africa. b) Use a photograph and draw a diagram of an underground mine (Kilembe copper?) and ask learners to describe the method of mining. c) Learners convert the diagram of an underground mine into a flow diagram to show the stages of mining.	<ul style="list-style-type: none"> Observe groups as they discuss and make suggestions and recommendations aimed at ensuring that mining benefits the people and
11) appreciate the need for strict laws to control mining	d) Learners suggest the advantages and possible dangers of underground mining; including how this might damage the	

Learning Outcomes	Suggested Learning Activities	Suggested Assessment Strategy
<p>physically and economically. (a, v, gs)</p> <p>12) understand why much of the mining in Africa is controlled by overseas companies. (u)</p> <p>13) draw a map to show the main mining areas of Africa. (s)</p>	<p>environment.</p> <p>e) Explain why Kilembe underground mine stopped for a long while and task the learners to find out whether it has been re-opened.</p> <p>6) Extraction of oil</p> <p>a) Draw a series of diagrams to show the stages in the extraction of oil or ask the learners look this up on Internet. Learners convert the diagrams into a flow diagram to summarise the stages of mining.</p> <p>b) Learners suggest possible problems of oil extraction, how this might damage the environment and how the damage can be prevented.</p> <p>c) Learners discuss the problems of ownership of land where the oil is found and compensation of the landowners.</p> <p>d) Case study: Oil Mining in Nigeria and Albert Region of Uganda. Emphasise the social, economic and environmental problems: pollution in Nigeria (show photographs of pollution in the Niger delta)</p> <p>7) Who benefits from mining?</p> <p>a) Explain the British system of ownership of minerals now used in Uganda.</p>	<p>not a few influential officials and foreign companies.</p> <ul style="list-style-type: none"> Note how well they collaborate, respect views at variance, originality of their ideas and problem-solving skills.

Learning Outcomes	Suggested Learning Activities	Suggested Assessment Strategy
	<p>b) Learners suggest why development of mining, including oil extraction, is very expensive.</p> <p>c) Learners suggest why, in East Africa, mining is mainly done by overseas companies.</p> <p>d) Ask learners whether local people always benefit from mining and if not, why.</p> <p>e) Guide learners to understand that in many countries the mines are owned by overseas companies and they pay taxes to the government. Explain that sometimes taxes are diverted to rich people through corruption, and to a few important members of the government.</p> <p>8) Case studies of Mining Areas across Africa</p> <p>a) Underground gold mining in South Africa; copper mining in Zambia and Congo; oil in Nigeria. Emphasize the social, economic and environmental problems: migrant labour in South Africa; landlocked area, transport problems and politics in Zambia/Congo; pollution in Nigeria (show photographs of pollution in the Niger delta)</p> <p>b) Learners discuss problems related to mining such as benefiting a few e.g., Nigeria, Angola; pollution</p>	

Learning Outcomes	Suggested Learning Activities	Suggested Assessment Strategy
	<p>destroying people's land e.g., Nigeria; political conflict partly caused by mining e.g. Congo, Biafra war, Zimbabwe.</p> <p>c) <i>In groups, Learners look up one of the above case study areas on the Internet.</i></p>	

References

Nakanwagi, P., Nakawooya, S. Nakibuuka, R. et al, Longhorn Secondary Geography, Learner's Book 3 (2022), Longhorn Publishers (Uganda) Limited, Kampala, Uganda.

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Level 2

Term 1

Topic 12: Development of Manufacturing Industries in East Africa, the rest of Africa.

Duration: 13 Hours

Competency

The learner demonstrates understanding of the advantages of developing manufacturing industries, the types and locations of manufacturing industries and the problems of developing manufacturing industries.

Learning Outcomes	Suggested Activities	Learning of	Suggested Assessment Strategy
<p>The learner should be able to:</p> <ol style="list-style-type: none"> 1) understand what manufacturing industries are. (u) 2) know some types of manufacturing industries in East Africa and their locations. (k) 3) use field work to study a local factory, how it works and its effects on the 	<ol style="list-style-type: none"> 1) Types of manufacturing industries <ol style="list-style-type: none"> a) Ask learners what manufacturing industries are. b) Learners give examples of manufacturing industries in the local area and other areas of Uganda, and suggest where the products of these industries are sold. c) Working in pairs, learners explain three types of manufacturing industries: those making goods for sale in shops (consumer goods); those making goods for sale to other 	<p>of</p>	<ol style="list-style-type: none"> 1) Observe whether learners can define and give an example of a manufacturing industry. 2) Learners produce a map or poster to explain the location of industries; pointing out the type of industry and the factors that influence their location. Evaluate the accuracy of their explanations. 3) Learners use evidence from their field trip to produce a report and assess any

Learning Outcomes	Suggested Activities	Learning	Suggested Assessment Strategy
<p>environment. (s)</p> <p>4) understand the factors influencing the distribution and development of any three manufacturing industries. (u)</p> <p>5) appreciate the contribution of manufacturing industries in transforming primary products for domestic consumption and export. (v, a, gs)</p> <p>6) understand the effects of manufacturing industries on the environment. (u)</p>	<p>industries (industrial/producer goods); those processing agricultural raw materials or minerals (processing industries).</p> <p>d) Pairs feedback to whole-class discussion.</p> <p>e) Working in groups, learners give examples of each type of industry in Uganda or East Africa and their locations. Learners investigate where manufacturing industries are located in Uganda and in East Africa and create maps to show their distribution.</p> <p>f) Groups present their maps to the class. Where possible, learners should visit a manufacturing or processing industry and find out what it produces, raw materials, use of labour, capital and ownership.</p> <p>2) Manufacturing industries</p> <p>a) Revision</p>	<p>environmental impact.</p> <p>4) Monitor pair discussion, observing depth of their understanding. Use feedback session to further deepen their understanding.</p> <p>5) Evaluate their charts and diagrams.</p> <p>6) Observe learners as they explain their recommendations with regard to given criteria.</p> <p><i>They choose one of each of the following and explain the development of one example of this type of industry in East Africa: processing industry; industrial/producer goods industry; consumer goods industry. They explain the location; reasons for development; what is produced; markets;</i></p>	

Learning Outcomes	Suggested Activities	Learning	Suggested Assessment Strategy
<p>7) use statistics, simple graphs and charts to analyse aspects relating to manufacturing industry.</p> <p>8) understand the use of energy resources in the development of manufacturing industries in Uganda or the rest of East Africa. (u)</p> <p>9) understand the problems of developing manufacturing industries in African countries. (u)</p> <p>10) understand the benefits manufacturing</p>	<p>questioning: remind learners that in studying East Africa, they learnt about three kinds of industries: mining industries; agricultural processing industries; and manufacturing industries.</p> <p>b) Explain that they have looked at mining industries and agricultural processing industries in different topics. Now, we will look at manufacturing industries. Ask what two kinds of manufacturing industries there are. (Consumer goods and industrial/producer goods industries).</p> <p>3) Development of Industries in Africa</p> <p>a) Either recap an earlier field trip to a factory site or arrange a field visit and ask learners to create a small case study identifying what happens there, the positive and negative impacts of the factory</p>		<p><i>benefits to the area; problems.</i></p> <p>1) Evaluate the flow diagrams and discussion to ensure that learners have understood the types of mining.</p> <p>Observe learners as they discuss the advantages and problems in developing manufacturing industries in East Africa</p>

Learning Outcomes	Suggested Activities	Learning	Suggested Assessment Strategy																																
<p>industries can bring to African countries. (u)</p> <p>11) study, through research, examples of areas with manufacturing industries. (gs)</p> <p>12) draw a map showing important industrial areas in Africa. (s)</p> <p>13) appreciate why many African countries are trying to develop manufacturing industries. (v, a, gs)</p>	<p>on the people, the environment and economy and to explain how they feel about it.</p> <p>b) Using a map, guide learners to find out examples of major industrial areas in Africa (Accra-Tema, Ghana; Lower Egypt industrial area; Witwatersrand or Rand industrial area, South Africa).</p> <p>c) Learners draw their own map or annotate a digital one.</p> <p>d) Learners construct a Table to compare these industrial areas under the following headings and illustrate with their own sketch maps or digitally sourced maps:</p>																																		
			<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th style="width: 25%;">Factors</th> <th style="width: 12.5%;">Accra-Tema</th> <th style="width: 12.5%;">Egypt</th> <th style="width: 12.5%;">Rand</th> </tr> </thead> <tbody> <tr> <td>Raw materials</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Power</td> <td></td> <td></td> <td></td> </tr> <tr> <td> </td> <td></td> <td></td> <td></td> </tr> <tr> <td>Fresh water</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Land</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Relief</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Transport</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Factors	Accra-Tema	Egypt	Rand	Raw materials				Power								Fresh water				Land				Relief				Transport			
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Learning Outcomes	Suggested Activities	Learning	Suggested Assessment Strategy																
	<table border="1" data-bbox="458 300 817 510"> <tr> <td>Capital</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Labour</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Market</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Government policies</td> <td></td> <td></td> <td></td> </tr> </table> <p data-bbox="447 515 821 1146"> e) For each area, learners explain the main industries and their ownership. f) Learners use Internet to help them compile the above Table. g) Working in groups, learners discuss the advantages of African countries establishing manufacturing industries. Groups feed their ideas into a class discussion. </p>	Capital				Labour				Market				Government policies					
Capital																			
Labour																			
Market																			
Government policies																			

ICT Support

Learners use the Internet as a source of information about the case study areas.

References

Irandu, E. M. (2000). Target Secondary School Geography; Form 2 Student's Book. Longhorn Publishers (K) Ltd., Nairobi. pp. 130-131.

Nakanwagi, P., Nakawooya, S. Nakibuuka, R. et al, Longhorn Secondary Geography, Learner's Book 3 (2022), Longhorn Publishers (Uganda) Limited, Kampala, Uganda.

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LEVEL 2

Term 1

Theme: Fishing, Wild life Conservation and Tourism

Topic 13: Sustainable use of Fisheries Resources in East Africa

Duration: 12 Hours

Competency

The learner demonstrates understanding of the fishing industry in East Africa, types of fishing and the contribution of fishing to the economy, the dangers facing fishing and ways to make it sustainable.

Learning Outcomes	Suggested Learning Activities	Sample Assessment Strategy
<p>The learner should be able to:</p> <p>1) know the major fishing areas in East Africa, inland and on the sea. (k)</p> <p>2) understand the main methods of fishing and draw diagrams to illustrate them. (u, s)</p> <p>3) understand the factors that favour fishing in</p>	<p>1) The fishing grounds of East Africa</p> <p>a) Ask learners to name areas where people fish in East Africa. What kind of places are they?</p> <p>b) Explain two types of fishing areas:</p> <p>i) the sea and coast</p> <p>ii) lakes and rivers.</p> <p>c) Use wall map, Chalk board sketch map or Atlas map to show main fishing areas in East Africa.</p> <p>d) Learners copy map as sketch map or create digital maps</p>	<p>1) Observe as learners sketch and explain methods of fishing, using appropriate language and identifying some of the problems associated with different methods of fishing.</p> <p>2) Monitor group discussions to gauge learners' understanding. Add information,</p>

Learning Outcomes	Suggested Learning Activities	Sample Assessment Strategy
<p>East Africa. (u)</p> <p>4) understand the differences between traditional and modern fishing methods and factors affecting the choice of these methods. (u)</p> <p>5) understand the characteristics, trends, benefits and problems of fishing in a local area. (u)</p> <p>6) understand the dangers of over-fishing and how this can be prevented. (u)</p> <p>7) understand the factors that cause damage to fishing grounds, including pollution and</p>	<p>2) Methods of fishing</p> <p>a) If possible, learners visit an area where fishing takes place. Find out the types of fish caught, methods used to catch fish, where and how the fish are sold and problems the fishing people face.</p> <p>b) Guide learners in a discussion about the types of methods used to catch fish or they have observed. Volunteers sketch these on the chalk board and explain each method.</p> <p>c) Learners use artifacts, where possible, and research images of traditional fishing methods.</p> <p>d) Individually, learners draw annotated diagrams of the equipment used in fishing, and research the methods used. (Spears, nets, fishing lines, traps, baskets, bow and arrow)</p> <p>e) Learners use photographs, video and other research to help them draw annotated diagrams of modern fishing methods and explain these (trawling, drift nets, dynamite blasting). Or learners could annotate digital images.</p>	<p>if necessary, to develop their thoughts.</p> <p>3) Observe learners' discussions and prompt them if they need help getting started. Evaluate how well they can contribute to the discussion.</p> <p>4) Ask learners to imagine that they are the Minister in charge of fisheries. Ask them to make up a policy for Uganda to get the best income from fishing that will also help preserve fish stocks. Observe the relevance of their policy.</p>

Learning Outcomes	Suggested Learning Activities	Sample Assessment Strategy
<p>how this can be prevented. (u)</p> <p>8) know some methods of preserving fish. (k)</p> <p>9) understand the methods of farming fish and how they help in conserving fish stocks. (u, v)</p> <p>10) understand the marketing of fish. (u)</p> <p>11) understand the methods of conserving fishing grounds. (u, v)</p> <p>12) use statistics, graphs and charts to analyse trends of fish stocks and fish catches. (s, gs)</p>	<p>f) Learners use Internet to find out information about fishing in East Africa.</p> <p>g) In groups, learners discuss the advantages and disadvantages of each method of fishing and whether traditional or modern methods are best for conserving fish.</p> <p>h) Explain dangers of some modern fishing methods, (drift net and blasting) and why these are banned.</p> <p>i) Learners suggest dangers of using nets with small holes and catching too many young fish and why people do it.</p> <p>3) Preservation of fish</p> <p>a) Learners brainstorm what they know about methods of preserving fish so they can be sent to long distance markets (smoking, salting, sun-drying, canning, refrigeration)</p> <p>4) Factors favouring fishing</p> <p>a) In groups, learners discuss factors which they think will encourage fishing.</p> <p>b) Groups present their views to</p>	<p>5) Observe learners as they discuss the methods and benefits of fish farming, making links between health, jobs and the environment.</p> <p>Evaluate how logical their arguments are.</p>

Learning Outcomes	Suggested Learning Activities	Sample Assessment Strategy
13) appreciate the dangers facing fishing in East Africa, and the need for strict laws and enforcement to preserve fish stocks. (v, a, gs)	<p>the whole class.</p> <p>c) Explain and expand group views where necessary.</p> <p>5) Benefits of the fishing industry</p> <p>a) In groups, learners discuss and list the benefits the fishing communities and the country can get from fishing.</p> <p>6) Problems of the fishing industry</p> <p>a) Learners discuss the dangers to fishing in East Africa e.g.:</p> <ul style="list-style-type: none"> i) over-fishing ii) catching young fish iii) pollution of water by human waste and chemicals from farming (fertilizers, etc.) and industries, etc. <p>7) Improvement of fishing</p> <p>a) As a class, learners discuss and suggest how the above problems can be solved. Ask: Which of the suggested solutions are most effective and why?</p> <p>b) Elicit responses and explain with examples where necessary.</p> <p>8) Fish farming</p> <p>a) Explain that one way to</p>	

Learning Outcomes	Suggested Learning Activities	Sample Assessment Strategy
	<p>increase fish production is to farm fish.</p> <p>b) Using picture(s) of fish farm, guide learners to explore how fish are farmed and the benefits of fish farming.</p> <p>c) Markets and good transport to markets</p> <p>d) Capital to buy fishing gear</p> <p>e) Government policy to enforce laws against over-fishing and pollution</p> <p>9) Benefits of the Fishing Industry</p> <p>a) Let the learners discuss and suggest the benefits the fishing communities and the country can get from fishing.</p> <p>b) List the learners' ideas on the chalkboard and add those left out, if any.</p> <p>c) Ask the learners to copy the benefits in their notebooks and illustrate each with relevant examples from East Africa.</p> <p>10) Problems Facing the Fishing Industry in East Africa</p> <p>a) In groups, learners discuss the problems limiting the development of fishing in East Africa.</p>	

Learning Outcomes	Suggested Learning Activities	Sample Assessment Strategy
	b) Groups share their ideas in a whole class discussion. c) Summarize the views on the chalkboard, clarify them through explaining and add any left out. 11) Solving Problems Facing Fishing in East Africa. a) In groups, let the learners discuss how the problems limiting development of the fishing sector can be solved. b) Group ideas feed into the class discussion. c) List the solutions on the chalkboard and explain more where necessary. Add any solutions left out.	

References

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Michael, S. and Wegulo, F. N. (1992). *A Complete Course in Human and Economic Geography*. Longman Kenya Ltd., Nairobi. pp. 212- 221.

Minns, W. J. (1987). *A Geography of Africa*. Macmillan Publishers Ltd., London. pp. 187-191.

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Topic 14: Wildlife Conservation and Tourism in East Africa

Duration: 11 Hours

Competency

The learner appreciates conservation of wild life, collects and analyses information about tourism and uses it to generate plans for developing tourism in the local area and the rest of Uganda.

Learning Outcomes	Suggested Learning Activities	Suggested Assessment Strategy
<p>The learner should be able to:</p> <ol style="list-style-type: none"> 1) know what is meant by wildlife and major areas for conserving wildlife in East Africa. (K) 2) Know the main tourist attractions of East Africa and locations of the main tourist areas. (K) 3) Understand the meaning of national park, game/wildlife 	<ol style="list-style-type: none"> 1) Wildlife Conservation <ol style="list-style-type: none"> a) Learners study an Atlas or wall map, identify and list the areas used for conserving wildlife in East Africa. Ask them to draw the map in their notebooks. b) Ask the learners what they understand by wildlife. c) Ask the learners to discuss why wildlife in East Africa is rapidly being destroyed. d) In groups, the learners discuss and suggest the consequences of failing to conserve wildlife. 2) Who is a Tourist and Why do they Come? <ol style="list-style-type: none"> a) Ask the learners who a tourist is. Are all people who come to East Africa tourists? What other kinds of people come? Ask the learners where they would like to go if they had the money to become Tourists. 	<ol style="list-style-type: none"> 1) Observe learners as they study the atlas or wall map and evaluate their ability to apply learned knowledge. 2) Listen to the learners' explanation of the consequences of failing to conserve wildlife and probe them to ensure that they explain their ideas in detail. 3) Note learners' definitions of a tourist and evaluate their

Learning Outcomes	Suggested Learning Activities	Suggested Assessment Strategy
<p>reserves, sanctuaries, historic and prehistoric sites. (U)</p> <p>4) know where most tourists to East Africa come from. (K)</p> <p>5) understand the meaning of domestic tourism. (U)</p> <p>6) understand the challenges facing wildlife conservation in East Africa. (U)</p> <p>7) understand who a tourist is and why tourists come. (U)</p> <p>8) understand why tourists are particularly interested in natural scenery and</p>	<p>b) Do tourists come to East Africa to see the kinds of things you want to see? Why not?</p> <p>c) Explain that tourists mainly come from industrialized countries where they live in big polluted cities, so they like to see natural areas and wild life. East African tourists might like to see big cities because they live in rural areas.</p> <p>d) Task the learners to use the Internet to find out tourist attractions in East Africa.</p> <p>e) In pairs, the learners make a list of the kinds of places tourists come to see in East Africa, and decide which ones are the most important.</p> <p>f) The learners suggest other kinds of areas which attract tourists. List the learners' suggestions on the chalkboard and add any not mentioned.</p> <p>3) Where do Tourists Come from?</p> <p>a) Show statistics of arrivals and origins of tourists in one or all East African countries. Ask the learners to represent the statistics using simple graphs and analyse them.</p>	<p>ability to relate wildlife and tourism. Lead them to an agreement.</p> <p>4) Evaluate learners' ideas about tourist attractions noting their ability to appreciate the tourist resources Uganda has.</p> <p>5) Listen to learners' contributions on challenges facing tourism. In conversation, ask them to suggest ways of overcoming the challenges. Note how logical and feasible their suggestions are.</p> <p>6) Evaluate the</p>

Learning Outcomes	Suggested Learning Activities	Suggested Assessment Strategy
<p>wild animals. (U)</p> <p>9) understand the kind of facilities tourists need.</p> <p>10) understand the challenges facing tourism in East Africa.</p> <p>11) recognize tourist attractions from photographs.</p> <p>12) draw a map of the main national parks and other tourist areas in East Africa.</p> <p>13) represent statistics on wild life and tourism using simple graphs.</p> <p>14) appreciate the need for conserving</p>	<p>b) Let learners use the Internet to find more statistics of arrivals and origins of tourists in East Africa.</p> <p>c) Explain that tourists come from industrialized countries, especially Europe which is traditionally linked to East Africa.</p> <p>d) and is close. Also, North America and increasingly China, Japan and South Korea as those countries are more industrialised and richer.</p> <p>4) Why is East Africa Popular to Tourists?</p> <p>a) Use a wall map of East Africa and ask the learners to list the main areas tourists go to. Ask them why East Africa is popular to tourists.</p> <p>b) Explain that East Africa has some of the best game parks and game reserves, coastlines and coral reefs, mountain scenery and rivers and lakes in Africa.</p> <p>c) Ask the learners: What else attracts tourists?</p> <p>d) Where possible, challenge learners to search videos showing the top 10 tourist sites/destinations in any one East African country. Let learners identify the activities tourists</p>	<p>learners' tour program for accuracy in relation to possible tourist activities in the area shown on the topographical map</p>

Learning Outcomes	Suggested Learning Activities	Suggested Assessment Strategy
wildlife.	carry out in the places identified. 5) Challenges Facing Tourism a) In groups, let the learners discuss why sometimes tourists do not come to some parts of East Africa and the dangers which may spoil tourism. b) Ask why tourists no longer go to some parts of the Kenya coast e.g., north of Malindi (political instability e.g., Al Shabab; and rumors of political trouble). c) Provide a topographical map of any area with actual or potential tourist resources and task the learners to collaboratively prepare a program for five days tour of the area.	

ICT Support

Learners search the Internet for information about tourist attractions and destinations, arrivals and departures and ways of managing the tourism industry.

References

Gibbs, C. W. (1987) *The Rhine lands*. East African Publishing House. Nairobi.

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Term 2

Theme: Population and Urbanisation

Topic 15: Population and Urbanisation in East Africa, the Rest of Africa and China

Duration: 15 Hours

Competency

The learner understands and appreciates factors influencing population growth and distribution in East Africa and the effects this has, including effects on environment and urbanisation.

Learning Outcomes	Suggested Learning Activities	Sample Assessment Strategy
<p>The learner should be able to:</p> <p>a) understand the terms related to population. (u)</p> <p>b) know the main areas of low and high density of population and the location of the main urban centres of East Africa. (k)</p>	<p>1) Population Growth</p> <p>a) Present population figures of any one country of East Africa for at least five censuses.</p> <p>b) Let the learners individually draw a line or bar graph to represent the information. Let them use the graph to describe how the population is growing.</p> <p>c) Ask: Is the population changing fast or slowly? What is causing this (birth and death rates, and rate of natural increase)?</p> <p>d) Explain the factors leading to population increase, e.g., improved medical care, cultural and religious beliefs, etc.</p> <p>e) Give the learners a task to write an essay on why Uganda’s population is growing too rapidly and, the measures we should take to reduce the rate of growth.</p>	<p>1) Mark the learners’ essays and assess their ability to relate population growth to the factors. Also note how logical, realistic and feasible their arguments are.</p>

Learning Outcomes	Suggested Learning Activities	Sample Assessment Strategy
<p>c) use maps, statistics, graphs and diagrams to analyse population. (s)</p> <p>d) understand the relationship between population, resources and the provision of services. (u)</p> <p>e) understand the factors which have led to rapid population increase in Uganda and the rest of East Africa. (u)</p> <p>f) understand the relationship between a rapidly growing population and</p>	<p>2) Distribution and Density of Population</p> <p>a) Present a wall map, chalkboard map or Atlas to show distribution of population in East Africa. Let the learners copy the map in their notebooks.</p> <p>b) Let the learners work in groups to list:</p> <ul style="list-style-type: none"> i) areas of high population density ii) moderate population density iii) low population density <p>c) Learners suggest reasons for areas of high and low density.</p> <p>d) Using the learners' answers, explain the factors affecting density of population in East Africa:</p> <p>e) In groups, ask the learners to discuss the problems of high densities in rural areas.</p> <p>f) Group ideas feed into whole class discussion.</p> <p>g) List the learners' views on the chalkboard and add others not given, if any.</p>	<p>2) Observe the learners as they draw the graph to represent population statistics. Assess their ability to select and use the relevant tools and note how accurate their drawings are.</p> <p>3) Listen to the learners as they present their ideas orally and probe them to explain further. Examine their skills of analyzing and expressing</p>

Learning Outcomes	Suggested Learning Activities	Sample Assessment Strategy
<p>urbanisation . (u)</p> <p>g) understand Kampala city as an example of rapid urbanisation and the advantages, disadvantages and problems resulting from urbanisation . (u)</p> <p>h) understand the concept of urbanisation , the factors influencing urbanisation , and the functions of urban areas. (u)</p> <p>i) appreciate the implications of urbanization for development</p>	<p>3) Problems of Rapid Population Growth</p> <p>a) Learners hold a debate or discussion on whether the rate of population growth in Uganda needs to be reduced, and if so, how can this be done. Include cultural and religious issues.</p> <p>4) Rural-Urban Drift</p> <p>a) In groups, the learners discuss reasons for rural-urban drift: pull and push factors.</p> <p>b) List these on the chalkboard. Clarify their views and add any others not pointed out.</p> <p>5) Growth of Urban Centers</p> <p>a) In pairs, let the learners use the Internet to find the population of some urban areas for at least five years e.g., Kampala, Nairobi in 1960, 1980, 2000, 2010, 2015, 2018, etc.</p> <p>b) Learners discuss the population figures to find out whether the population of urban areas is increasing or falling.</p> <p>c) Explain that the continuous increase of the number of people living in towns and</p>	<p>issues coherently.</p> <p>4) Observe learners as they work in groups and note how well they collaborate, take turns, tolerate those with challenges and respect each other's views.</p>

Learning Outcomes	Suggested Learning Activities	Sample Assessment Strategy
<p>. (v, a)</p> <p>j) use statistics and photographs to illustrate urbanisation and its problems. (s)</p> <p>k) understand the methods which can be used to control the rate of population growth. (u)</p> <p>l) appreciate the effects and problems of urban growth.</p> <p>m) suggest ways of solving problems of urban growth.</p> <p>n) use lessons learnt from case studies to appreciate the need for planning the development</p>	<p>cities is called urbanization. It is usually followed by the expansion of such towns or urban areas.</p> <p>d) Learners work in groups to find out whether people in towns carry out the same activities as those living in rural areas.</p> <p>e) Let them draw a Table with two columns to distinguish between the activities done in rural and urban areas.</p> <p>f) Ask the learners the problems related to rapid growth of urban areas and summarise their responses on the chalkboard.</p> <p>g) Ask the learners to suggest how these problems can be solved or reduced.</p> <p>h) Learners carry out individual research about any two of these major urban areas of East Africa: Nairobi, Kampala, Dar es Salaam, and Mombasa.</p> <p>6) Case Study: Population Control in China</p> <p>a) Through discussion, guide learners to understand the one-child policy and its effect on population growth. Explain other social consequences of one child policy: special treatment of one child;</p>	

Learning Outcomes	Suggested Learning Activities	Sample Assessment Strategy
<p>of urban areas.</p> <p>o) understand the reasons for the adoption of the one child policy in China. (u)</p> <p>p) understand the consequences of the one child policy and changes in it. (u)</p> <p>q) understand the growth of Shanghai as a major city. (u)</p>	<p>abortions of female children as males are more important in culture; imbalance of males and females and not enough females for men to marry.</p> <p>b) Through questioning, guide learners to explore the reasons for the change to the two-child policy.</p> <p>c) Learners work in pairs to investigate and research the one-child policy in China on Internet or library and share the information they have found with their group.</p> <p>Case Study: Shanghai City</p> <p>a) In pairs or groups, learners conduct a textbook and/or internet research and suggest the reasons that led to the growth of Shanghai as a big city.</p>	

ICT Support

Learners use ICTs to find out current information about cases study areas such as Shanghai City.

References

Karuggah, R. and Kubasu, J. (1999). Certificate Geography. Form 4. Oxford University Press, Nairobi. pp. 23-38.

Michael, S. and Wegulo F. N. (1992). A Complete Course in Human and Economic Geography. Longman Kenya Ltd., Nairobi. pp. 128-155.

Newspaper Articles.

Theme: Further Use of Maps

Topic 16: Further Skills in Map Reading and Map use

Duration: 10 Hours

Competency:

The learner uses large scale or 'survey' maps to find out about areas and generates proposals for development of such areas by analysing their resource potential.

Learning Outcomes	Suggested Learning Activities	Suggested Assessment Strategy
<p>The learner should be able to:</p> <p>a) Know the meaning of contours and cross sections. (k)</p> <p>b) understand what a Contour is. (u)</p> <p>c) understand how to use contours to describe the relief of an area. (s)</p> <p>d) draw a cross section from a survey map. (s)</p> <p>e) use contours to describe the relief of an area. (s)</p>	<p>1) Using Contours</p> <p>a) Use questioning to revise isolines. Explain that contours are lines joining places of the same height.</p> <p>b) Let one group of learners, line along one contour and another group lines along a contour above or below the first one to show what a contour is.</p> <p>c) Ask the learners to line along different contours along a steep slope.</p> <p>d) Explain that on a steep slope, contours are close together while on a gentle slope, they are widely spaced.</p> <p>e) Present a sand tray and task the learners to draw contours around a hill, valley, and spur to show the shape of these features on a contour map.</p>	<p>1) Observe the learners as they do the tasks on different contour maps. Find out how accurately they use the maps.</p> <p>2) In conversation, ask them to propose other ways of demonstrating contour lines and to compare</p>

Learning Outcomes	Suggested Learning Activities	Suggested Assessment Strategy
<p>f) use survey maps to describe relief, drainage, climate, vegetation, farming, settlements, transport and other human activities in an area. (s)</p> <p>g) use a sketch map to show areas on survey maps. (s)</p> <p>h) appreciate the importance of survey maps in studying Geography. (v/a)</p>	<p>f) Explain how contours are numbered.</p> <p>g) Show a simple contour map showing steep slope, gentle slope, hill, valley, flat land, etc.</p> <p>h) Use questioning to help the learners recognise the features.</p> <p>2) Describing an Area from a Survey Map</p> <p>a) In groups, the learners use a survey map to describe relief, drainage, vegetation, settlement, transport and communication and other human activities in the area.</p> <p>b) The learners answer questions that relate human features to physical features and to each other.</p> <p>c) Let the learners draw a sketch map to show the relationship between features on a survey map.</p> <p>d) Challenge the learners to describe economic development of an area using a survey map; problems facing development, prospects and potentials for development.</p>	<p>their suggestions with the sand tray demonstration. Note their ability to generate new ideas with justification.</p> <p>3) Assess the learners' presentations and gauge the extent to which they can build on earlier skills in map reading and use.</p> <p>4) In conversation, ask the learners to relate their cross sections to</p>

Learning Outcomes	Suggested Learning Activities	Suggested Assessment Strategy
	3) Drawing a Cross Section a) Demonstrate drawing cross sections from a topographic survey map. b) In pairs, the learners practice drawing cross sections from maps and mark human features along the sections. c) Explain how cross sections can be used to describe areas and to relate features in an area to relief and height.	real landscape. Assess their ability to apply learned knowledge.

References

- Karuggah, R. and Kibuuka, P. (2003). *Certificate Geography, Form 1*. Oxford University Press, East Africa. pp 75-90.
- Kiguru, J. (1988). *Map Reading and Photographic Interpretation for "O" Level*. Macmillan, Kenya.
- McMaster, D. N. (1978). *Map Reading for East Africa. Fourth Edition*, Longman Ltd., Hong Kong.
- Kaggwa, H., Mugumya, R., Sepuya, N., and Mutyaba, J. C. (2007). *MK Integrated Secondary Geography. Student's Book 1*, pp 11-30.
- Tanser, G. H. (1984). *An Introduction to Map Reading for East Africa. 2nd ed*. Evans Brothers Ltd, Great Britain.

Theme: Introduction to the Rest of Africa

Topic 17: Location and Size of Africa

Duration: 2 Hour

Competency:

The learner knows the size of Africa compared with other continents, its position in the world and the size and position of East Africa within Africa.

Learning Outcomes	Suggested Learning Activities	Suggested Assessment Strategy
<p>The learner should be able to:</p> <p>a) Know the position of Africa in the world. (k)</p> <p>b) know the size of Africa compared to other continents. (k)</p> <p>c) understand that Africa occupies a unique position as the most tropical of continents. (u)</p> <p>d) draw a sketch map showing the position of Africa. (s)</p>	<p>1) Location and Size</p> <p>a) Use wall and Atlas maps of the world and ask the learners to describe the position of Africa. Ask them to compare Africa to other continents and to the Equator and Tropics.</p> <p>b) Present a Table showing the areas of continents and task the learners to construct a pie chart to compare the size of Africa with other continents.</p> <p>c) Let the learners use wall and Atlas maps of Africa or the Internet maps to describe the position of East Africa within Africa.</p> <p>d) Individually, the learners draw the map in their books.</p>	<p>Task the learners to explain what makes Africa different from other continents. Listen to their explanations noting how logically they present their ideas</p>

References

Irandu, E. M. (2000). Target Secondary School Geography; Form 2 Student's Book. Longhorn Publishers (K) Ltd., Nairobi. pp. 69-80.

Michael, S. (1985). Tropical Lands: A Human Geography. Longman Group Ltd., Burnt Mill. pp. 170-183.

Topic 18: Relief Regions and Drainage of Africa

Duration: 9 Hours

Competency:

The learner understands the relief regions of Africa, the major landforms and drainage and how they were formed and the effects of the relief and drainage on development.

Learning Outcomes	Suggested Learning Activities	Suggested Assessment Strategy
<p>The learner should be able to:</p> <ul style="list-style-type: none"> a) know the names and positions of the major relief regions of Africa. (k) b) use a sketch map to show the major relief regions, rivers and lakes in Africa. (s) c) understand the importance of rivers and lakes 	<ul style="list-style-type: none"> 1) Relief regions <ul style="list-style-type: none"> a) Learners work in groups to research and create their own 2D or 3D maps, adding features as they learn about them. b) Using a wall map and Atlas map or Internet map showing the relief of Africa and images, including aerial images, ask learners to locate and describe the position of the main mountain areas of Africa. c) Ask learners which kind of relief occupies the largest area in other parts of Africa: plateaus or coastal plains. d) Explain that, apart from high mountains, most of Africa contains plateaus with small areas of coastal plains. 	<ul style="list-style-type: none"> 1) Observe learners as they use their maps to discuss the advantages of Africa's land forms and relief features for the development of Africa and make connections. 2) (They should mention areas of good volcanic soils with high population densities; areas of minerals e.g., copper, gold, uranium; fertile sedimentary soils and oil deposits; mountains good

Learning Outcomes	Suggested Learning Activities	Suggested Assessment Strategy
<p>to development. (u)</p> <p>d) appreciate that rivers and lakes can be useful but can also be spoilt by pollution. (v, a, gs)</p> <p>e) understand how their own lives and the lives of their communities are affected by physical features, including natural hazards. (u)</p>	<p>2) Formation of land forms</p> <p>a) Through questioning, guide learners to revise the formation of volcanoes and block mountains.</p> <p>b) Explain that the mountains of Africa are either old or new volcanic mountains (Ethiopian highlands, Cameroon, Drakensburg and the volcanoes of East Africa), block mountains (Rwenzoris) or folded mountains (Atlas).</p> <p>c) Learners look up Drakensburg and Atlas Mountains on Internet or in textbooks and make notes about their origins and age.</p> <p>d) Guide learners to explore that on some coastal plains and in river valleys, sedimentary rocks have been deposited e.g., Niger delta. These form fertile soils and also in some areas contain oil deposits.</p> <p>e) Learners develop their maps, devising their own key to show regions and features they have investigated and learnt about.</p>	<p>for tourism)</p> <p>3) Learners use evidence from their case studies to present and identify some of the advantages and problems caused by land forms and how this has affected communities. Observe the extent to which learners are able to describe key advantages and problems.</p> <p>4) Observe learners as they discuss the findings of their fieldwork and interpret their local area. Note how well they express themselves and respect divergent views.</p>

Learning Outcomes	Suggested Learning Activities	Suggested Assessment Strategy
	<p>3) Drainage</p> <p>a) Guide learners to use an Atlas, wall map or Internet map to identify main rivers and lakes of Africa. Learners add these features to their own maps.</p> <p>b) Ask learners to suggest the ways in which these rivers and lakes benefit the people of Africa.</p> <p>c) Learners suggest the problems the people of Africa face in using the rivers and lakes.</p> <p>d) Guide learners to revise formation of major land forms and drainage features, and discuss how physical features affect their own lives.</p>	

ICT Support

Learners use ICT to search for or create and annotate 2D and 3D maps of Africa.

References

- Irandu, E. M. (2000). Target Secondary School Geography; Form 2 Student's Book. Longhorn Publishers (K) Ltd., Nairobi. pp. 69-80.*
- Michael, S. (1985). Tropical Lands: A Human Geography. Longman Group Ltd., Burnt Mill. pp. 170-183.*

Term 3

Theme: Forestry and Irrigation Farming

Topic 19: Forests, forest resources and forestry in Africa

Duration: 9 Hours

Competency: The learner understands the importance and uses of forest resources in Africa and why they should be preserved.

Learning Outcomes	Suggested Learning Activities	Suggested Assessment Strategy
<p>The learner should be able to:</p> <p>a) know the distribution of the main forest resources in Africa. (k)</p> <p>b) understand the importance of forests in terms of the environment. (u)</p> <p>c) understand the factors favouring the development of the hardwood industry. (u)</p> <p>d) understand the development of the hardwood trade in Gabon. (u)</p>	<p>1) Africa’s Forests</p> <p>a) Ask the learners, based on their previous knowledge, to identify where the main forests in Africa are and how these are related to the climate. What type of timber do they produce?</p> <p>b) Learners use previous knowledge to describe the main characteristics of tropical rain forests.</p> <p>c) In groups, learners discuss the importance of forests, including why they are important in preserving the environment.</p>	<p>1) Observe the learners as they answer questions about the main forests in Africa and examine how they relate their ideas to types of vegetation already studied.</p> <p>2) Probe the learners to explain their ideas further and note how well</p>

Learning Outcomes	Suggested Learning Activities	Suggested Assessment Strategy
<p>e) identify from photographs the characteristics of forests and activities related to logging in Gabon. (s)</p> <p>f) Use simple graphs and charts to present and analyse statistics on the timber industry in Gabon. (s, sg)</p> <p>g) draw the map showing the major forested areas and timber processing areas in Gabon. (s)</p> <p>h) Appreciate the dangers of unsustainable forestry in Africa and the dangers of destroying forests. (v/a)</p>	<p>Case Study: The Forest Industry in Gabon</p> <p>a) Learners use an Atlas to find out the location of Gabon and suggest the type of climate and vegetation found in the country.</p> <p>b) Use a textbook or chalkboard map to show the major forest areas of Gabon, the major rivers, the transport routes and the timber centres named. Let the learners draw the map.</p> <p>c) Ask the learners to suggest why a timber industry has developed in Gabon. List the points and add any not listed.</p> <p>d) Show photographs of logging and ask the learners to describe what they see and construct a flow diagram to show the production, use and export of timber.</p>	<p>they can express themselves.</p> <p>3) Let the learners explain the Dangers of Cutting down Forests and Suggest how This can be prevented.</p> <p>4) Task the learners to Imagine they are the Minister for Forestry in Uganda, and then answer the following questions: Would you ban all tree cutting? What would be the difficulties of doing this?</p>

Learning Outcomes	Suggested Learning Activities	Suggested Assessment Strategy
	<p>e) Ask: How do the people of Gabon benefit from the presence and exploitation of forests?</p> <p>f) In pairs, the learners suggest the likely problems faced in exploiting forests in Gabon.</p> <p>g) In groups, the learners discuss the dangers of cutting down forests without replacement.</p>	<p>What would be the best policies to control the cutting down of forests?</p>

References

- Irandu, E. M. (2000). Target Secondary School Geography: Form 2 Student's Book. Longhorn Publishers (K) Ltd. Nairobi. pp. 70-80.*
- Michael, S. (1985). Tropical Lands: A Human Geography. Longman Group Ltd., Burnt Mill. pp. 170-183.*
- Minns, W. J. (1987). A Geography of Africa. Macmillan Publishers Ltd., London. pp. 47-101.*
- Pritchard, J. M. (1980). Africa. Longman Group Limited, London. pp. 68-111.*
- Howard, T. (1994). Africa: A New Study Geography. Longman Group UK Ltd. Burnt Mill. pp. 23-37.*

Topic 20: Irrigation farming in Africa

Time: 7 Hours

Competency: The learner appreciates why irrigation is becoming particularly important in African farming, and the methods of small scale and large-scale irrigation.

Learning Outcomes	Suggested Learning Activities	Suggested Assessment Strategy
<p>The learner should be able to:</p> <p>a) understand why irrigation is important in Africa. (u)</p> <p>b) Know some examples of irrigation schemes in Africa. (k)</p> <p>c) understand one example of a large-scale irrigation scheme. (u)</p> <p>d) understand the factors leading to the development of the Gezira scheme. (u)</p> <p>e) understand how the Gezira scheme works, its benefits and difficulties. (u)</p> <p>f) recognise different methods of</p>	<p>1) Irrigation Farming in Africa</p> <p>a) Ask: Why is irrigation important in Africa? Which parts of Africa are most important for irrigation?</p> <p>b) Show on a map, with examples, irrigation schemes in Africa and ask the learners to record their names and countries.</p> <p>Case Study: The Gezira Irrigation Scheme</p> <p>a) Provide the learners with a map showing the position of the Gezira scheme in relation to the branches of the Nile and a climate graph of the Gezira area. Challenge the learners to suggest why the Gezira scheme was set up where it is and factors leading to its development.</p>	<p>Task the learners to suggest whether a large-scale irrigation scheme based on cooperation between local Farmers and Government would be suitable for their country. They should give Reasons to Support their views.</p> <p>Listen to the learners as they explain reasons for the location of the Gezira scheme.</p>

Learning Outcomes	Suggested Learning Activities	Suggested Assessment Strategy
irrigation from photographs. (s) g) describe the climate of Gezira plains from a climate graph. (s) h) draw maps of the Gezira scheme and its location. (s) i) Appreciate the advantages of Government's cooperation with small scale farmers. (v/a, u)	b) Task the learners to look up Gezira irrigation scheme on the Internet and describe what they find out. c) Describe, with the use of a diagram, the organization of the Gezira scheme as cooperation (joint venture) between Government and small holders. d) Ask the learners to suggest the advantages of cooperation between Government and local farmers. e) Describe the problems of the Gezira scheme. f) In groups, let the learners discuss and suggest some of the problems of the schemes organised by Governments and how these can be reduced.	Note their ability to relate human activities to the physical environment especially relief, drainage and climate. Observe learners as they discuss in groups and evaluate their ability to work as a team to generate ideas. Ask learners to explain their suggestions noting how well they can defend their views.

ICT Support

Learners search the Internet for current information about the Gezira scheme and analyse the trend of its development.

Theme: Mining and Industrialization in other parts of the World

Topic 21: Mining and industrial development in China

Duration: 6 Hours

Competency: The learner understands why and how industries developed in China, the industries which developed, and appreciates lessons Uganda can learn from China.

Learning Outcomes	Suggested Learning Activities	Suggested Assessment Strategy
<p>The learner should be able to:</p> <p>a) know the minerals found in China. (k)</p> <p>b) know the types of industries in China. (K)</p> <p>c) draw a map to indicate the main mining and industrial areas of China. (s)</p> <p>d) understand how China developed industries. (u)</p> <p>e) realise the role of the Government and central planning in</p>	<p>1) Minerals and mining in China</p> <p>a) Use a wall map, Atlas map or Internet map to show the location of the main minerals in China. Learners find these with their own sources and create their own maps.</p> <p>b) Explain the importance of minerals in the development of industries in China.</p> <p>2) Industrial development in China</p> <p>a) Explain the importance of Government policy in the development of industries in China: communist control of the economy and industrial development – the Great Leap Forward. Later Government control of industrial development.</p> <p>b) Learners work in groups to research facts about industrial development in China, using the Internet and other sources, and make a small presentation with maps and charts to illustrate the development. They investigate current news, stories to search for information about Chinese investment in Uganda.</p> <p>c) Ask learners the kinds of products</p>	<p>1) Evaluate accuracy of learners' maps.</p> <p>2) Observe as learners explain whether most African countries have the same advantages for development of industries as China.</p> <p>3) In conversation, probe learners to clarify their ideas and defend their opinions about the potential for developing manufacturing industries in African countries.</p>

Learning Outcomes	Suggested Learning Activities	Suggested Assessment Strategy
<p>industrial development . (u)</p> <p>f) understand changes in industries in China. (u)</p> <p>g) understand the importance of Africa as a market for Chinese goods and investment. (u)</p> <p>h) appreciate the growing importance of China in the economic development of Africa. (v, a, gs)</p>	<p>from China that are sold in Uganda. (Cheap consumer goods, textiles, plastics; Electronic goods, especially mobile phones and computers).</p> <p>d) Explain the industries developed in China and changes in these: starting with heavy industries (iron and steel.); consumer goods industries based on cheap labour; changes to more advanced technological industries as wages increased.</p> <p>e) In pairs or groups, learners discuss and suggest the advantages for the development of industries China has: minerals and other raw materials; very large population for cheap labour and big market; education emphasizing technical and industrial skills; Government control and encouragement.</p> <p>f) Ask learners if they can name any projects in Uganda or other areas of Africa where Chinese are investing. What sort of projects are these? Why are the Chinese good at these projects? (Roads, railways, hydro-electricity: large scale projects where they have experts backed by large companies).</p>	<p>4) Learners use their research to give their views on the pros and cons of Chinese investment in Uganda, giving examples of small and large-scale projects as explanation.</p>

ICT Support

Learners use ICT to find information about mining and industrial development in China; to analyse the role of centralised planning in national development.

Assessment in AEP

The new AEP curriculum sets new expectations for learning, with a shift from Learning Outcomes that focus mainly on knowledge to those that focus on skills and deeper understanding. These new Learning Outcomes require a different approach to assessment.

The “Learning Outcomes” in the syllabuses are set out in terms of Knowledge, Understanding, Skills, generic skills, Values and Attitudes. This is what is referred to by the letters k, u, s, v/a and gs.

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 values and attitudes are not important. It means that we must value things that we cannot easily assess.

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

Knowledge	The retention of information.
Understanding	Putting knowledge into a framework of meaning – the development of a ‘concept’.
Skills	The ability to perform a physical or mental act or operation.
Values	The inherent or acquired behaviours or actions that form a character of an individual.
Attitudes	A set of emotions, beliefs or behaviours toward a particular object, person, thing or event.
Generic skills	A set of skills that enable the learner to access and deepen learning across the whole curriculum

To assess knowledge, skills and understanding we need to look for different things. Knowledge can be assessed based on written tests such as multiple-choice questions, fill-in-the-blanks, or other forms of recall-based assessments; understanding may be assessed based on short-answer questions, essays, or other forms of application-based assessments; but the assessment of skills may use the following strategies: performance-based assessments in which learners demonstrate their skills by performing a task or activity, observation of learners as they perform a task or activity to assess skills, such as communication skills, respect of each other's opinions, time management and teamwork, and peer assessments where learners evaluate each other's skills and providing feedback especially for promoting collaboration and communication skills. The assessment of k, u, s, v/a is elaborated in the following graphic.

<p>Knowledge</p> <p>Knowledge is the easiest to assess because it is fairly straightforward to find out whether or not a learner has retained some information: a simple question can usually find this out. We ask them to name something, or state something, or label a diagram.</p>	<p>Skills</p> <p>Skills are the ability to perform a mental or physical operation, so we have to observe the skill being performed or look at the product, or outcome, of the skill; for example, a piece of writing, a picture or diagram.</p> <p>Some skills, such as speaking or a physical education skill do not have a product so need to be observed.</p>
<p>Understanding</p> <p>Assessing deeper understanding is much more difficult, so we usually ask learners to explain, compare or outline a process. This can be done orally (in conversation) or in writing, and will give us some idea of the extent of their understanding.</p>	<p>Values and Attitudes</p> <p>Values and Attitudes determine how we interact with others, working in a team, meeting deadlines, being self-driven, holding democratic values, and having respect for democracy, race, gender, disability, human dignity, culture, nation, life and social justice.</p>

Assessments are used for a wide range of purposes in schools and education systems. Just as academic lessons have different functions, assessments are typically designed to measure specific elements of learning, e.g., the level of knowledge a student already has about the concept or skill the teacher is planning to teach or the ability to comprehend and analyse different types of texts and readings. This section focuses on the evaluation of progressive day-to-day classroom learning (formative assessment) and how summative assessment will be done both at school and at the national level.

Formative Assessment

Formative assessment refers to a wide variety of methods that teachers use to conduct in-process evaluations of student comprehension, learning needs and academic progress during a lesson, unit or activity.

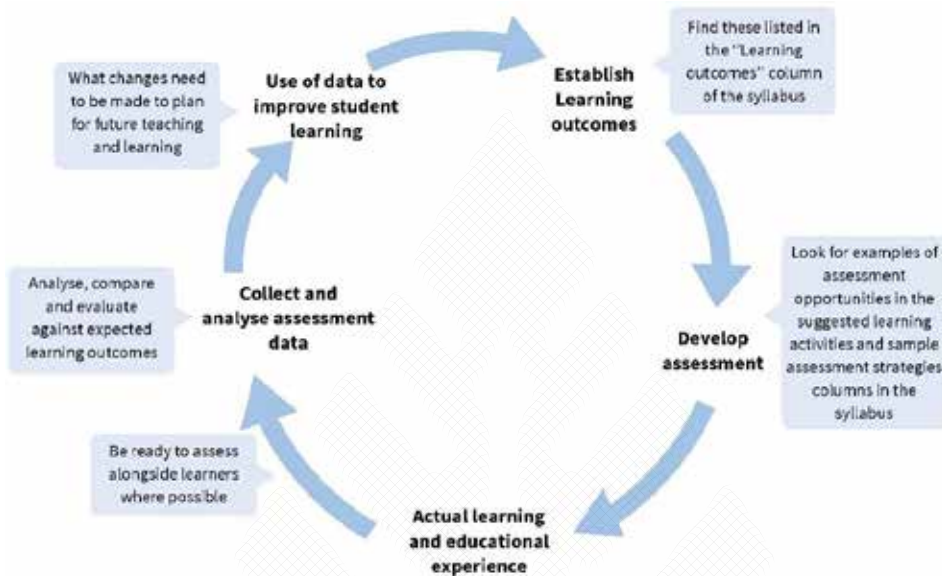
The general purpose of formative assessment is to improve learning and achievement, and give educators in-process feedback about what learners are learning or not learning so that instructional approaches, teaching materials, and academic support can be modified accordingly. Formative assessments are usually not scored or graded, and they may take a variety of forms, from more formal quizzes and assignments to informal questioning techniques and in-class discussions with learners.

The general goal of formative assessment is to collect detailed information that can be used to improve instruction and learning while it is happening. What makes an assessment “formative” is not the design of a test, technique or self-evaluation per se, but the way it is used, that is, to inform in-process teaching and learning modifications.

If assessment is to make a difference to teaching and learning, then teachers must use the information they gain from assessment to make **some changes** to the teaching and learning process. The changes that can be made include decisions about:

- i) What needs to be learnt next.
- ii) Whether an element of the syllabus needs to be taught again in a different way.
- iii) Changing teaching approaches if necessary.
- iv) Identifying learners who need more support, or who are making exceptional progress.
- v) Enabling learners to understand what they have to do to improve.

The process of teaching, formative assessments and improving the teaching and learning is shown in the following cycle.



How do we find the opportunity to make formative assessment?

In the AEP curriculum, the teacher’s assessment role is not to write tests for learners but to make professional judgments about learner’s learning in the course of the normal teaching and learning process. The professional judgment is about how far the learner meets the learning outcomes that are set out in this syllabus. To make these judgments the teacher needs to look at how well the learners are performing in terms of each learning outcome.

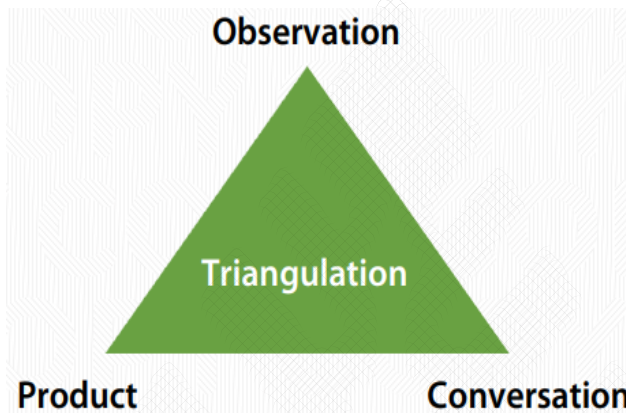
School-based formative assessment is a part of the normal teaching and learning process, and so the assessment opportunities will also occur during this normal process.

These assessments occur in three forms and are often referred to as:

- Observation – watching learners working (good for assessing skills and values).
- 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, graphs, 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 the 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 of assessment opportunities

To find these opportunities, look at the detailed syllabus for each topic. These set out the learning that is expected and give ‘Sample Assessment strategy’ and in doing so they contain a range of opportunities for the three forms of assessment

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 and Attitudes

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 attitudes are not important. It means that we must value things that we cannot easily assess.

Summative Assessment

This will be done in two ways:

1) **School-based summative assessment**

This will be done by teachers assessing learners through activities of integration at the end of every topic or sub-topic and project work. This will cumulatively be collected at school and will be submitted to the national assessment body (Uganda National Examinations Board [UNEB]) to contribute 20% of the final score.

2) **Examinations**

There will be examinations at the end of Level One to test the suitability of the learners for promotion to Level Two. There will also be national examinations at the end of Level Two or at the end of S.4 if learners transit to the normal school.

Recordkeeping

Keeping detailed records of learners' individual progress is always difficult with very large numbers of learners. For the purposes of school-based formative assessment, it is not even always necessary to keep such detailed records anyway. If feedback is given immediately and action is taken, then learning is changed and the record would soon become out of date and redundant.

Most formative class-based assessments are dynamic in that they feed straight back into the teaching and learning process. Therefore, detailed records of these are not appropriate.

What is needed is a record of assessments of learners' learning made in terms of each topic or unit. This means recording the ongoing summative assessments of each unit. There is no need to make separate records of each of the Learning Outcomes because this would be very time-consuming and also unnecessary. It is much more useful to make an overall assessment about whether or not each learner met the Learning Outcomes for each topic as a whole.

Each topic is made up of a number of Learning Outcomes. Therefore, teachers need to consider all the Learning Outcomes when making an overall judgement about the topic as a whole. It is not always necessary for every individual Learning Outcome to be achieved or, for the topic as a whole to be achieved.

This will vary with the subject and topic.

By looking at the Learning Outcomes (LOs) within each topic, it is possible to identify four broad groups of learners in terms of their achievements:

Descriptor
Some LOs achieved, but not sufficient for overall achievement
Most LOs achieved, enough for overall achievement
All LOs achieved – achievement with ease

These overall assessments should be made on the basis of the many formative assessments that the teacher has made during the course of teaching the topic. If teachers have been working with the learners over the course of the topic, they will be able to make a broad judgement about which learners have achieved or have failed to achieve the topic’s overall Learning Expectation. These “Authentic Assessments” will be more valid and valuable than a test set by the school.

Recording these overall assessments will be simple, manageable and yet valuable, and can be recorded on a sheet such as the one below in which the categories are indicated with a number.

Although a very simple process, these four categories will give rich data when a comparison is made between the learners in each category for different subjects and units. They will also easily identify those learners who need extra support or who may not be ready to move on to the next grade at the end of a year.

If records are kept of the learning outcomes of each syllabus unit through the year, then there will be no need for an end-of-year test. Teachers will already have a record of those learners who have met the Learning Outcomes, and those who have not done so. Therefore, teachers will know if there were any learners not ready to progress to the next grade.

An overall record should be made of the individual unit assessments by subject in terms of the three descriptors. If numbers (1–3) are used as identifiers, then it will be possible to arrive at an overall number for a year by aggregating the identifiers for each topic.

Descriptor	Identifier
Some LOs achieved, but not sufficient for overall achievement	1
Most LOs achieved, enough for overall achievement	2
All LOs achieved – achievement with ease	3

In the example below, the table shows the end-of-unit assessment for six learners.

Physics										
	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10
Learner A	3	3	2	3	3	3	3	2	3	3
Learner B	2	2	3	2	3	2	2	2	3	2
Learner C	1	1	2	1	1	2	2	3	2	3
Learner D	1	1	2	1	1	2	1	1	2	1

This method will give much more information than using a tick. For example, at a glance it can be seen that learners A and B are achieving much higher than learners C and D. It can be seen that learner C has improved during the year. All of this is very valuable assessment information and can be used to improve learning.

This summative teacher assessment will contribute 20% to the final grade of the school, together with project work.

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 subject; enables a learner to apply the knowledge and understanding of the subject.
Sample Assessment Activity	An activity which gives a learner the opportunity to show the extent to which s/he has achieved the learning outcomes. This is usually part 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.



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