#### **REPUBLIC OF RWANDA**







Kigali, 2015

# GEOGRAPHY AND ENVIRONMENT SYLLABUS ORDINARY LEVEL S1-S3

Kigali 2015

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## FOREWORD

The Rwanda Education Board is honoured to present syllabuses which serve both as official documents and as a guide to competence based teaching and learning. These syllabuses ensure consistency and coherence in the delivery of quality education across all levels of general education in Rwandan schools.

The Rwandan education philosophy aims to ensure that young people at every level of education achieve their full potential in terms of the relevant knowledge, skills and appropriate attitudes in order to prepare them to be well integrated in society and access employment opportunities.

In line with efforts to improve the quality of education, the government of Rwanda emphasises the importance of aligning the syllabus, teaching and learning and assessment approaches in order to ensure that the system is producing the kind of citizens the country needs. Many factors influence what children are taught, how well they learn and the competences they acquire, particularly the relevance of the syllabus, the quality of teachers' pedagogical approaches, the assessment strategies and the instructional materials available. The ambition to develop a knowledge-based society and the growth of regional and global competition in the jobs market has necessitated the shift to a competence based syllabus.

With the help of teachers, whose role is central to the success of the syllabus, learners will gain appropriate skills and be able to apply what they have learned in real life situations. Hence they will make a difference not only to their own lives but also to the success of the nation.

I wish to sincerely extend my appreciation to the people who contributed to the development of this document, particularly REB and its staff who organised the whole process from its inception. Special appreciation goes to the development partners who supported the exercise throughout.

Mr GASANA I. Janvier

Director General REB (Rwanda Education Board)

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## **1. INTRODUCTION**

## **1.1.** Background to the syllabus review

Geography is part of the Ordinary level curriculum. It is designed for learners who have completed primary level and are pursuing the lower secondary school level. It also lays a strong foundation for learners wishing to pursue geography at the upper secondary level. The former curriculum was knowledge based and needed to be modified to include higher order thinking skills.

The lower secondary level curriculum was reviewed in 2014. This was done to ensure that it is an active and competence based curriculum that prepares learners with new skills, attitudes and values. The curriculum provides a platform for learners to explore and discover the content, with the teacher facilitating their learning. It also develops other educational initiative skills such as critical thinking, creativity and innovation, research and problem solving, communication and co-operation, and literacy and numeracy.

Despite the fact that the former curriculum integrated environmental issues within the geography syllabus, this curriculum review had a specific focus on environmental management. This was the reason the subject name was changed into "Geography and Environment".

## 1.2. Rationale of teaching and learning of Geography and Environment

Geography is the study of the earth including all the phenomena that make up the physical and human environment. Geography and Environment helps learners to understand the physical and social environment in order to build unity in diversity.

This teaching syllabus is intended to promote uniformity and continuity of content coverage for ordinary level geography.

Geography is a discipline that is concerned with the real world in which learners live. It aims to ensure learners are capable of solving problems and developing knowledge, skills, attitudes and values that are relevant to their present and future lives.

The geography competence based curriculum motivates learners to find out about the real world and enables them to recognise the importance of sustainable development for the future.

The geography competence based curriculum enables learners to develop both generic competence skills as well as literacy and numeracy skills to interpret human and physical phenomena, maps, photographs and diagrams.

## **1.2.1.** Geography & Environment and Society

Geography is a subject that allows people to understand the physical and social environment in which they are growing up. It equips people with knowledge about diverse places, resources, and natural and human environments. Geography provokes and answers questions about society, using different techniques of inquiry to view these societies from different perspectives. It develops knowledge of places and the environment throughout the world. As such, it prepares young people for adult life and employment.

A focus within the geography curriculum is understanding and resolving issues about the environment and sustainable development. Geography is also an important link between the natural and social sciences. Geographical studies help to acquire knowledge and skills on different societies and cultures. This also helps learners to realise how nations rely on each other. It can inspire learners to think about their own place in the world, their attitudes, values, and their rights and responsibilities towards other people and the environment.

## 1.2.2. Geography& Environment and learners

The geography and environment competence based curriculum was developed for the purpose of extending the learners' knowledge, sharpening their intellectual capacities, and strengthening their study skills. It incorporates the objectives of the Rwandan government's education sector and the strategic development plans for Rwanda.

The geography and environment competence based curriculum will enable learners to acquire a variety of functional and sustainable knowledge, skills, and experiences. This will help them to develop into citizens with positive attitudes, a sense of curiosity, creativity, and a capacity and ability to fit into the local, national, and international community.

The geography and environment competence based curriculum helps learners understand the physical and social environment in which they are growing up and to appreciate diversities/differences and similarities in their communities, country, region, continent and the world.

This curriculum is also aimed at developing the learner's critical thinking mind that will enable them to participate in the development of their country and to face major challenges like environmental degradation and overpopulation.

## 1.2.3. Competences

A competence is the ability to perform a particular task successfully, resulting from having gained an appropriate combination of knowledge, skills and attitudes. The national policy documents, based on the national aspirations, identify 'Basic Competences' alongside the 'Generic Competences' that will develop higher order thinking skills.

Basic Competences are addressed in the stated broad subject competences and in the objectives highlighted on a year on year basis and in each of unit of learning. The Generic Competences are Basic Competences that must be emphasised and reflected in the learning process that are briefly described below. Teachers will ensure that learners are exposed to tasks that help learners acquire the relevant skills.

#### **Generic Competences**

**Critical and problem solving skills**: The acquisition of such skills will help learners think imaginatively, innovatively and broadly to evaluate and find solutions to problems encountered in their surroundings.

**Creativity and innovation**: The acquisition of such skills will help learners to take initiative and use imagination beyond the knowledge provided in the classroom to generate new ideas and construct new concepts.

**Research**: This will help learners find answers to questions based on existing information and concepts and use it to explain phenomena from the gathered information.

**Communication**: Teachers, irrespective of being language teachers will ensure the proper use of the language of instruction by learners. Teachers should communicate clearly and confidently and convey ideas effectively both in spoken and written form by applying the appropriate language and relevant vocabulary.

**Cooperation, inter personal management and life skills**: This will help learners cooperate as a team in whatever task is assigned and to practice positive ethical moral values whilst respecting the rights, feelings and views of others. Learners will perform practical activities related to environmental conservation and protection. They will advocate for personal, family and community health, hygiene and nutrition and respond creatively to a variety of challenges encountered in life.

**Lifelong learning**: The acquisition of such skills will help learners update their knowledge and skills with minimum external support. Learners will be able to cope with the evolution of knowledge for personal fulfilment in areas that are relevant to their improvement and development.

#### **Broad Geography& Environment Competences**

During and at the end of learning process, the learner can:

- Develop a strong interest in their surroundings at a local, regional and global level.
- Appreciate the variety of physical and human aspects of the world and acquire a commitment to sustainable development.
- Appreciate the relationships between people and environments, and appreciate the importance of geographical locations to human activities.
- Demonstrate an understanding of the physical and social environment in which they live and appreciate the diversity and similarities in their communities, country, region, continent and the world.
- Be aware of land use practices and resource utilization their consequences in Rwanda and around the world.
- Analyse the impact of various socio-economic activities on sustainable development.
- Develop a variety of other skills including critical thinking, research and problem solving, creativity and innovation, communication and co-operation, and how to present conclusions in the most appropriate way.
- Demonstrate awareness and show concern for environmental conservation and sustainability and act accordingly.
- Be competent in a range of skills and techniques necessary to carry out geographical research with data and interpret geographical phenomena.
- Read and interpret geographical data from geographical sources like maps, photographs, diagrams and field studies.

#### **Geography & Environment and developing competences**

The national policy documents based on the national aspirations identifies some 'Basic Competences' alongside the 'Generic Competences' that will develop higher order thinking skills and will help subject learning. These competences will allow learners to apply what has been learnt in real life situations.

Through research using textbooks and other geographical documents, the internet, observation, group discussions, and presentations, learners will develop critical thinking, research and problem solving capacity, creativity and innovation, and communication and cooperation skills. This will allow learners to understand and harmonise their findings with physical and human aspects and make conclusions.

## 2. PEDAGOGICAL APPROACH

Learners understand best when they are actively involved in the learning process through a high degree of participation, contribution and production. Each learner is an individual with his/her own pace of learning, experience and ability. Teaching strategies must therefore be varied and flexible with a well structured lesson sequences. Learner-centred education involves full participation of the learners under the guidance of the teacher.

#### 2.1. Role of the teacher

Since the competency based curriculum is about learners' active participation in the learning process, the teachers ought to stick to a learner centred approach where the teacher plays the role of the coach/ facilitator in order to value learners' needs and expectations.

The competence based curriculum will transform learning and ensure that learning is deep, active and enjoyable. Through this approach the teacher shifts from the traditional method of instruction and plays the role of a facilitator. The teacher identifies the needs of the learners, the nature of the learning to be done, and the means to shape learning experiences accordingly.

The teacher will organise learners in the classroom or outside, and engage them to participate and interact in learning processes. The teacher will guide learners to work individually or in groups to explore or discover the content covered. This ensures that the learning is personalised, active, participative and co-operative.

The teacher designs and introduces tasks to the class for research, discussion and group presentation. The teacher guides the learners in developing their own knowledge, skills, attitudes and values.

The teacher selects, develops and uses appropriate learning and teaching materials like geographical documents, maps, atlases, local materials, teaching models, charts, and talking and tactile materials which learners will use in their work.

In fieldwork studies, the teacher will identify the appropriate topic for study, the area of study, and outline the methods to be used for study. The teacher organises the study, and accompanies and guides the learners during the real field study. After the field study, the teacher guides learners in group discussions and their presentation of the findings.

## 2.2. Role of the learner

The activities for learners are indicated in each learning unit and they reflect the appropriate participation of the learner in the learning process. The teaching/learning process is geared towards creating a learner centred environment basing on the learners' capabilities, experience and interests.

Learners use textbooks, the internet and other resource materials to research and understand their findings which will improve their knowledge, skills, attitude and values.

In fieldwork studies, learners apply the knowledge and methods acquired to observe, ask questions, interpret and write down the findings from study. After the field study, learners discuss the findings in groups and write presentations.

#### 2.3. Special needs education and inclusive approach

All Rwandans have the right to access education regardless of their different needs. The underpinnings of this provision would naturally hold that all citizens benefit from the same menu of educational programs. The possibility of this assumption is the focus of special needs education. The critical issue is that we have persons/learners who are totally different in their ways of living and learning as opposed to the majority. These differences can either be emotional, physical or sensory. Traditionally intellectual learning challenges were known as mental retardation.

These learners equally have the right to benefit from the free and compulsory basic education in the nearby ordinary/mainstream school. Therefore, the schools' role is to enrol them and also set strategies to provide relevant education to them. The teacher therefore is requested to consider each learner's needs during the teaching and learning process. Assessment strategies and conditions should also be adapted to the needs of these learners. Detailed guidance for each category of learners with special education needs is provided for in the guidance for teachers.

## 3. ASSESSMENT APPROACH

Assessment is the process of evaluating the teaching and learning processes through collecting and interpreting evidence of an individual learner's learning progress and makes a judgment about the learner's achievements against defined standards. Assessment is an integral part of the teaching learning processes. In the new competence based curriculum, assessment must also be competence based, whereby a learner is given a complex situation related to his/her everyday life and asked to try to overcome the situation by applying what he/she has learned. Assessment will be organised at the following levels: Schoolbased assessment, District examinations, National assessment (LARS), and National examinations.

#### 3.1. Types of assessment

#### 3.1.1. Formative and continuous assessment (assessment for learning)

Continuous assessment involves formal and informal methods used by schools to check whether learning is taking place. When a teacher is planning his/her lesson, he/she should establish the criteria for performance and behavioural changes at the beginning of a unit. Then at the end of every unit, the teacher should ensure that all the learners have mastered the stated key unit competences based on the criteria stated, before going to the next unit. The teacher will assess how well each learner mastered both the subject and the generic competences described in the syllabus and from this the teacher will gain a picture of the all-round progress of the learner. The teacher will use one or a combination of the following: (a) observation (b) pen and paper (c) oral questioning.

#### 3.1.2. Summative assessment (assessment of learning)

When assessment is used to record a judgment of a competence or the performance of the learner, it serves a summative purpose. Summative assessment gives a picture of a learner's competence or progress at any specific moment. The main purpose of summative assessment is to evaluate whether learning objectives have been achieved. It is also used to rank or grade learners, for deciding on progression, for selection into the next level of education and for certification. This assessment should have an integrative aspect whereby a student must be able to show mastery of all competencies.

Summative assessment can be internal school based assessment or external assessment in the form of national examinations. School based summative assessment should take place once at the end of each term and once at the end of the year. School summative assessment average scores for each subject will be weighted and included in the final national examinations grade.

School based assessment average grades will contribute a certain percentage as teachers gain more experience and confidence in the assessment techniques. In the third year of the implementation of the new curriculum it will contribute 10% of the final grade, but will be progressively increased. Districts will be supported to continue their initiatives to organise a common test per class for all the schools to evaluate the performance and the achievement level of learners in individual schools. External summative assessment will be done at the end of P6, S3 and S6.

## 3.2. Record Keeping

This is the gathering of facts and evidence from assessment instruments and using them to judge the student's performance by assigning an indicator against the set criteria or standard. Whatever assessment procedures used shall generate data in the form of scores which will be carefully recorded and stored in a portfolio because they will contribute to remedial actions, for alternative instructional strategy and feedback to the learner and to the parents to check on the learning progress and to advise accordingly, or to the final assessment of the students.

This portfolio is a folder (or binder or even a digital collection) containing the student's work as well as the student's evaluation of the strengths and weaknesses of their work. Portfolios reflect not only the work produced (such as papers and assignments), but also act as a record of the activities undertaken over time as part of student learning. The portfolio output (formative assessment) will be considered only as enough for three years of Advanced level. It will also serve as a verification tool for each learner to show that he/she attended all the learning activities before he/she undertakes the summative assessment for the subject.

## 3.3. Item writing in summative assessment

Before developing a question paper, a plan or specification of what is to be tested or examined must be developed to show the units or topics to be tested, the number of questions in each level of Bloom's taxonomy and the marks allocated for each question. In a competence based curriculum, questions from the higher levels of Bloom's taxonomy should be given more weight than those from the knowledge and comprehension level.

Before developing a question paper, the item writer must ensure that the test or examination questions are tailored towards competence based assessment by doing the following:

• Identify topic areas to be tested on from the subject syllabus

- Outline the subject matter content to be considered as the basis for the test
- Identify learning outcomes to be measured by the test
- Prepare a table of specifications
- Ensure that the verbs used in the formulation of questions do not require memorisation or recall answers only but test the broad competences as stated in the syllabus

#### Structure and format of the examination:

There will be two papers in the geography subject. Duration: 3 hours each

#### Paper I: Physical geography:

Map reading and photographic interpretation. General physical geography, physical geography of Rwanda and physical geography of Africa.

#### Paper II: Human and Economic geography:

Human and economic geography of Rwanda, human and economic geography of Africa and development case studies. <u>Note</u>: On development case studies, questions will be optional: questions from two of the three continents: Europe, America and Asia.

#### 3.4. Reporting to parents

The wider range of learning in the new curriculum means that it is necessary to think again about how to share a learners' progress with their parents. A single mark is not sufficient to convey the different expectations of learning that are outlined in the learning objectives. The most helpful reporting is to share what students are doing well and where they need to improve.

## 4. **RESOURCES**

#### 4.1. Learning/teaching materials

- Physical, human and economic wall maps of Rwanda, the different continents and the world
- Textbooks, reference books, newspapers, maps, atlases, charts and globes
- Software materials: computers, video clips, projectors and the internet
- Photographs (ground, aerial and oblique)
- Models from the local environment (rocks, minerals, soils samples, etc.)
- Ordinary survey maps (0.S.M)
- Measuring instruments: rain gauge, thermometer, barometer, hygrometer, wind vane, anemometer, compass, clinometers and GPS.
- Stationary: manila paper, flip charts, etc.
- Adaptive materials: tactile and talking materials like talking globes, tactile maps, tactile illustrations, and brailed equipment and materials.

#### 4.2. Human resource

For effective and efficient teaching of the Geography and Environment syllabus, it is to be noted that:

- Teachers should have at least a diploma in geography from a recognised teaching institution of higher learning
- Teachers should have a proven ability to use textbooks, teachers' guides, geographical magazines and other sources of geographical information that are in line with the ordinary geography curriculum
- Teachers should be fluent in English which is the language of instruction

- Teachers should have some basics skills and knowledge in special needs education like Rwandan sign language, and braille reading and writing.
- The teacher should be able to modify the methodology to accommodate the needs of learners in class including those with special educational needs and those who are gifted

## 5. SYLLABUS UNITS

#### 5.1. Presentation of the structure of the syllabus units

The Geography and Environment subject is taught and learned in lower secondary education as a core subject in S1, S2 and S3 respectively. At every grade, the syllabus is structured in Topic Areas, Sub-Topic Areas where applicable, and then further broken down into Units. The Units have the following elements:

- 1. A Unit is aligned with the Number of Lessons
- 2. Each Unit has a Key Unit Competence whose achievement is pursued by all teaching and learning activities undertaken by both the teacher and the learners
- 3. Each Unit Key Competence is broken into three types of Learning Objectives as follows:
  - a. *Type I:* Learning Objectives relating to Knowledge and Understanding (*Type I* Learning Objectives are also known as Lower Order Thinking Skills or LOTS)
  - b. *Type II and Type III:* These Learning Objectives relate to acquisition of skills, attitudes and values (*Type II* and *Type III* Learning Objectives are also known as Higher Order Thinking Skills or HOTS). These Learning Objectives have been targeted by the present curriculum review
- 4. Each Unit has a Content which indicates the scope of the coverage of what a teacher should teach and learner should learn in line with the stated learning objectives
- 5. Each Unit suggests Learning Activities that are expected to engage learners in an interactive learning process as much as possible (learner centred and participatory approach)
- 6. Finally, each Unit is linked to Other Subjects, the Assessment Criteria, and the Materials (or Resources) that are expected to be used in the teaching and learning process.

The syllabus of Geography and Environment for ordinary level has 3 Topic Areas (Practical geography, Physical Geography, Human and Economic Geography). There are 13 units in S1, 22 in S2 and 18 in S3.

	<b>S1</b>	S2	S3
Topics areas	3	3	3
Sub-topic areas	10	10	9
Units	13	22	18

## 5.2. Geography & environment syllabus for ordinary level: senior one

## 5.2. 1. Competences at the end of senior one

At the end of senior one, the learner will be able to:

- Demonstrate an understanding of the earth and the elements of physical geography
- Explain the relationship between physical geography and human activities
- Apply knowledge and understanding of physical and human geography theory
- Read and identify the elements of a map and interpret them

## 5.2.2. Geography and Environment units for senior one

Year & Subject: S.1 Geography and Envi	ronment	Unit 1: Introduct	ion to geography		No. of periods: 3
Key Unit Competence: T	o be able to determine t	the importance of g	eography and the re	elationship	with other subjects
Le	arning Objectives				
Knowledge and understanding	Skills	Attitudes and values	Content		Learning Activities
<ul> <li>Identify the main branches of geography and its importance</li> <li>State different sources of geographical information</li> <li>Identify the relationship between geography and other subjects</li> </ul>	<ul> <li>Explain the main branches of geography and its importance</li> <li>Classify different sources of geographical information.</li> <li>Examine the relationships between geography and other subjects</li> </ul>	- Appreciate the importance of geography in relation to other subjects. Show respect towards the available sources of geographical information	<ul> <li>Definition, main branches and importance of geography</li> <li>Sources of obtaining geographical information</li> <li>Relationship between geography and other subjects</li> </ul>	<ul> <li>Use gelocal e branch</li> <li>the fin</li> <li>In grouthe claise</li> <li>Carry textboot to disconstruction</li> <li>to disconstruction</li> <li>In grouthe fin</li> <li>In grouthe fin</li> </ul>	ographical documents, the internet and nvironment to define geography, its nes and discover its importance. Record dings. ups, discuss the findings and present to iss. out research from the internet, oks or other geographical documents cover different geographical nation and the relationship between aphy and other subjects. Write down dings. ups, discuss the findings and make a nation to the class supported by Q&A.
Links to other subjects:	History: location of plac	es and maps. Econor	mics: economic activ	vities	
<b>Assessment criteria:</b> Learners are able to clearly determine different branches of geography, the importance of studying it and the relationship with other subjects.					
Materials: Geographical tactile materials including	documents, maps, globe, g: tactile maps, smart tal	, atlas, photographs king globes, smart t	s, the internet, local actile atlases and br	environmer ailed textbo	nt, and field study equipment. Audio and oks.

## **TOPIC AREA: PRACTICAL GEOGRAPHY**

#### SUB-TOPIC AREA: MAP READING AND PHOTOGRAPHIC INTERPRETATION

Year & Subject: S.1 Geography and Environment

Unit 2: Elements of a map

No. of periods: 5

**Key Unit Competence:** To be able to interpret the essential elements of a map and draw sketch maps

	Learning Objectives			
Knowledge and understanding	Skills	Attitudes and values	Content	Learning Activities
<ul> <li>Identify the various elements of a good map</li> <li>Identify the symbols used on a map</li> <li>Explain how to draw a sketch map</li> <li>State the indicators of relief on a physical map and topographic map</li> <li>Define a map and an aerial photograph</li> <li>Define an atlas index.</li> </ul>	<ul> <li>Clarify various elements of a good map</li> <li>Locate features on maps using compass directions</li> <li>Observe the symbols on a map and interpret them using a key</li> <li>Draw a sketch map and apply the elements of a good map.</li> <li>Interpret the indicators of relief on a physical map and topographic map</li> <li>Differentiate a map</li> </ul>	- Appreciate the elements of a good map	<ul> <li>Definition of map</li> <li>Elements of a good map: title, frame, scale, key, and compass direction.</li> <li>Identification and interpretation of symbols and signs on a map</li> <li>Drawing sketches of maps (school and home)</li> <li>The representation of relief on maps: use of colours, trigonometric stations, spot heights and contours.</li> <li>Map and aerial photographs</li> </ul>	<ul> <li>In groups, use topographic maps to observe and discuss elements of a good map, identification and interpretation of symbols and signs on a map.</li> <li>Use the elements of a good map and draw sketch maps of your school or home environment using different scales.</li> <li>In groups, use physical maps and topographic maps to identify and interpret the representation of relief on maps by colours, trigonometric stations, spot heights and contours</li> </ul>

	from an aerial		- Atlas index	lines.
	photograph			- Use geographical
	- Explain the elements			documents, maps and
	of an atlas index			photographs to
				differentiate maps from
				photographs.
				Price of aprice
				- Use an atlas to identify and
				locate the elements of an
				atlas index
Links to other subjects:	Fine Art: drawing and des	ian.		
Assessment criteria: Lea	rners are able to correctly	internret the essentia	l elements of a man and dra	w sketch mans
Assessment criteriu. Leu	inters are able to correctly	interpret the essentiu	i elements of a map and ara	w sketch mups
Materials: Topographic r	maps, wall maps, ruler, per	ncils, colours, tactile d	and talking teaching materi	ials, geographical documents, the
internet, atlases and the lo	ocal environment.			

#### **TOPIC AREA: PHYSICAL GEOGRAPHY**

## SUB-TOPIC AREA: UNDERSTANDING THE EARTH AND UNIVERSE

Year & Subject: S.1 Geography and Environment

Unit 3: The earth in relation to the universe

No. of periods: 12

Key Unit Competence: To be able to analyse the impact of the earth's position and movements in the solar system

Learning Objectives				
Knowledge and understanding	Skills	Attitudes and values	Content	Learning Activities
<ul> <li>Identify different components of the universe</li> <li>Describe the earth and the solar system.</li> <li>State the earth's movements and its consequences</li> <li>Show the relationship between longitude and time</li> <li>Define latitude and longitude.</li> </ul>	<ul> <li>Distinguish between various components of the universe</li> <li>Establish the relationship between the solar system and the universe</li> <li>Classify the components of the earth in comparison to those of other planets</li> <li>Analyse the earth's movements and their</li> </ul>	<ul> <li>Appreciate the universe and the uniqueness of the earth</li> <li>Show continual desire to protect the earth's environment</li> <li>Participate willingly in reading more about the components of the universe</li> </ul>	<ul> <li>Universe: definition of the universe, and components of the universe</li> <li>Constellations and galaxies (examples of galaxies)</li> <li>The solar system: the sun, the planets and the satellites</li> <li>The moon: characteristics and types of eclipses e.g. eclipse of the moon and eclipse of the sun</li> <li>The characteristics of the earth: elements of the earth, uniqueness of the earth from other planets, shape, size, and its position in the solar system.</li> <li>The earth's movements</li> <li>The rotation of the earth on its axis (definition of rotation, consequences of the rotation).</li> </ul>	<ul> <li>In groups, using a range of sources (illustrations, sketch diagrams, books, photographs or the internet), research the elements of the universe and the solar system, and the characteristics of the earth. Write down the findings.</li> <li>In groups, discuss and compile the findings and present to the class.</li> <li>In groups, manipulate a globe to illustrate the earth's rotation. Use a globe and a torch to illustrate the revolution of the earth around the sun.</li> <li>In group discussions outside the classroom, compare the</li> </ul>

	<ul> <li>consequences</li> <li>Determine time or longitude of different places in relation to the prime meridian (Greenwich meridian)</li> <li>Distinguish latitude from longitude.</li> </ul>	- Show concern for the changes resulting from the earth movements	<ul> <li>The revolution of the earth around the sun: definition and consequences of the revolution.</li> <li>Longitude and latitude</li> </ul>	<ul> <li>rotation of the earth in relation to the changing positions of the sun. Write down the findings and present to the class.</li> <li>Use geographical documents to differentiate between latitude and longitude and use them to find locations.</li> <li>Use a globe, a map or an atlas to determine the time at different places in world according to their longitude</li> </ul>				
Links to other subj	ects: Physics: light, gra	vitation force an	d velocity. Mathematics; calculations o	f time.				
Assessment criteria and approach: Students are able to correctly differentiate various components of the universe and analyse the impact of the earth's movements in the solar system.								
<b>Materials:</b> Geograph local environment, pl	hical documents, illust hotographs and atlases	<b>Materials:</b> Geographical documents, illustrations, globes, the internet, torches, diagrams, tactile and talking materials, sketch maps, local environment, photographs and atlases.						

<b>TOPIC AREA: PHYSI</b>	ICAL GEOGRAPHY		SUB-TOPIC AREA: UNDERSTANDING THE EARTH AND UNIVERSE			
Year & Subject: S.1 Geography and Environment Unit 4. The struc		tructure of the earth			No. of periods: 4	
Key Unit Competen	<b>ce:</b> To be able to des	scribe the geolog	gical	structure of the earth		
Le	earning Objectives					
Knowledge and understanding	Skills	Attitudes an values	ıd	Content		Learning Activities
<ul> <li>Explain the external components of the earth</li> <li>Describe the internal structure of the earth</li> </ul>	<ul> <li>Infer the relationship between the physical and biological aspects of the earth</li> <li>Explain the internal structure of the earth</li> </ul>	<ul> <li>Appreciate the importance of the external components the earth.</li> <li>Advocate for the need to conserve the environment</li> <li>Appreciate the beauty of the components the earth and show a desir to protect a range of environment</li> </ul>	he of e t he e of d re ts.	<ul> <li>External structure of the earth: lithosphere, biosphere, hydrosphere, and atmosphere.</li> <li>Internal structure of the earth: crust, the mantle, and core.</li> </ul>	- I c c t t t - I s t t t t t t t t t t t t t t t t t t	n a field visit outside the classroom, observe contrasted environments (one legraded and one blossoming) and dentify different external components of the earth. Record the findings and draw relevant conclusions. n groups, discuss the findings and make a presentation to the class followed by Q&A. n groups, use research resources like geographical documents, illustrations and the internet to identify the internal structure of the earth. Discuss the findings n a presentation to the class. n groups, compare the internal structure of the earth to that of a cut avocado and the indicate layers that form the internal structure of the earth. Make a presentation to the class.
Links to other subje	e <b>cts:</b> Biology: vegeta	tion and animal.	s. Ch	emistry: chemical element	ts	
Assessment criteria	: Students are able to	o correctly analy	rse th	he general structure of the	ear	th
<i>Materials:</i> Geograph and tactile and talkin	ical documents, illus g materials.	trations, photog	raph	hs, the internet, slide show	s, vi	deo clips, avocado, globe, local environment,

<b>TOPIC AREA: PHYS</b>	ICAL GEOGRAPHY		SUB-TOPIC AREA: RELIEF		
Year & Subject: S.1 Geography and	Environment	Unit 5: Forms of re	lief	No. of periods: 6	
Key Unit Competen	<b>ce:</b> To be able to det	ermine the relationshi	p between reliefs and human a	activities	
]	Learning Objectives	;			
Knowledge and understanding	Skills	Attitudes and values	Content	Learning Activities	
<ul> <li>Identify the different forms of relief features</li> <li>State the relationship between reliefs and human activities</li> </ul>	<ul> <li>Classify the different forms of reliefs</li> <li>Explain the relationship between reliefs and human activities</li> </ul>	<ul> <li>Appreciate the importance of reliefs</li> <li>Advocate for human activities that are friendly to different forms of reliefs</li> </ul>	<ul> <li>Definition of a relief</li> <li>Notion of slope, altitude, and contours.</li> <li>Forms of reliefs: continental relief features and marine relief features</li> <li>The relationship between reliefs and human activities</li> </ul>	<ul> <li>Observe the relief features around the school. Touch and feel relief models. Interpret the relief and write out the findings.</li> <li>In groups, discuss findings and present to the class.</li> <li>Use topographic maps, atlases and documents to identify various relief features and their relationship with human activities.</li> <li>In groups, discuss the findings and present to the class followed by Q&amp;A.</li> </ul>	
Links to other subjects: Mathematics: angles and shapes.					
Assessment criteria: Learners are able to correctly differentiate between the various forms of reliefs and analyse the relationship between reliefs and human activities					
<i>Materials:</i> Geograph relief models, local en	hical documents, the avironment, and tactil	internet, clinometers, e and talking materials	altimeters, metre ruler, calcu s.	lator, photographs, topographic maps,	

TOPIC AREA: PHYSICAL GEOGRAPHY			SUB-TOPIC AREA: ROCKS, WEATHERING AND SOILS	
Year & Subject: S.1 Geography and Environment Unit 6		Unit 6: Rocks		No. of periods: 5
Key Unit Competence	e: To be able to different	iate types of rocks a	nd their economic uses	
l	Learning Objectives			
Knowledge and understanding	Skills	Attitudes and values	Content	Learning Activities
<ul> <li>Define rocks.</li> <li>State the types and characteristics of rocks</li> <li>Outline the importance of rocks.</li> </ul>	<ul> <li>Apply knowledge to explain and categorise rocks in their environment.</li> <li>Analyse the characteristics of different types of rocks.</li> </ul>	<ul> <li>Appreciate the economic importance of rocks</li> </ul>	<ul> <li>Definition of rocks</li> <li>Types and characteristics of rocks: sedimentary, metamorphic and igneous</li> <li>Importance of rocks</li> </ul>	<ul> <li>Research rock types using geographical sources like the internet, text books, journals. Write down the findings.</li> <li>Discuss the findings in groups and present to the class.</li> <li>In field study, observe and find samples of rocks. Discuss the different types and make a presentation to the class.</li> <li>In the classroom observe and touch and feel the available rock samples and classify the rock types.</li> <li>In groups, discuss the characteristics of rocks and their importance. Present findings to the class followed by Q&amp;A.</li> </ul>
Links to other subjec	ts: Chemistry: chemical e	elements		
Assessment criteria:	Learners are able to corre	ectly differentiate typ	pes of rocks and their eco	onomic uses
Materials: Geographic and tactile and talking	cal documents, rocks san materials.	nples, illustrations, p	hotographs of different	t rocks, the internet, the local environment,

<b>TOPIC AREA: PH</b>	TOPIC AREA: PHYSICAL GEOGRAPHY			SUB-TOPIC AREA: WEATHERING AND SOILS		
Year & Subject: S.1 Geography and Environment		Unit 7: Soils		<b>No. of periods:</b> 10		
Key Unit Compe	tence: To be able to determine	the relationship betw	een different types of soils a	nd human activities		
	Learning Objectives					
Knowledge and understanding	Skills	Attitudes and values	Content	Learning Activities		
<ul> <li>Define soils and state the factors responsible for soil formation.</li> <li>Identify soil properties and constituents</li> <li>Identify the types of soils</li> <li>State the importance of soils</li> <li>Outline the effects of soil on human activities</li> </ul>	<ul> <li>Examine the characteristics of different soil types and soil formation processes</li> <li>Analyse the factors influencing soil formation</li> <li>Carry out research in a local environment to describe the soil profile and soil catena</li> <li>Classify different types of soil</li> <li>Apply knowledge to suggest the use of certain types of soils</li> <li>Explain the relationship between different soil types and human activities</li> </ul>	<ul> <li>Appreciate the importance of soil</li> <li>Show concern and respect for soil conservation and agriculture as important activities</li> <li>Appreciate the arrangement of soils in a local environment</li> </ul>	<ul> <li>Definition of soils</li> <li>Soil formation processes: weathering, leaching, salinization, etc.</li> <li>Factors influencing soil formation: climate, nature of vegetation, and parent rock.</li> <li>Soil properties/constituen ts.</li> <li>Soil structure: soil profile and soil catena, texture, PH. etc.</li> <li>Types of soils</li> <li>Importance of soils</li> <li>Relationship between soil types and human</li> </ul>	<ul> <li>Use documents, the internet and diagrams to research the soil formation processes, the factors influencing soil formation, the soil constituents, and soil structure. Record the findings.</li> <li>In groups, discuss the findings for and present to the class.</li> <li>In field study outside the classroom, observe and collect samples of soils.</li> <li>In groups categorise types of soils and discuss their importance. Make a presentation to the class.</li> <li>Use geographical documents, mans and photographs to</li> </ul>		

			activities	research the relationship between soil types and human activities. - In groups, discuss the findings and present to the class, supported by Q&A
Links to other su	<b>ibiects:</b> Bioloay: ecoloay. Chemi	istrv: soil aciditv		session.
Assessment criteria: Learners are able to clearly determine the relationship between different soil types and human activities in their environment				
<b>Materials:</b> Geographical documents, soil samples, soil maps, photographs, the internet, documentary on soils, local environment, and tactile and talking displays.				

#### **TOPIC AREA: PHYSICAL GEOGRAPHY**

#### SUB-TOPIC AREA: WEATHER AND CLIMATE

Year & Subject: S.1 Geography and Environment

## **Unit 8: Weather and climate**

#### No. of periods: 23

**Key Unit Competence:** To be able to recognise the importance of the atmosphere, differentiate weather from climate and classify the major climatic types.

Learning Objectives				
Knowledge and understanding	Skills	Attitudes and values	Content	Learning Activities
<ul> <li>State the difference between weather and climate</li> <li>Identify the layers of the atmosphere and state the importance of the atmosphere</li> <li>Outline the elements of weather and climate</li> <li>Identify weather instruments at a weather station</li> <li>State the factors influencing temperature</li> </ul>	<ul> <li>Differentiate weather from climate</li> <li>Analyse the layers and importance of the atmosphere</li> <li>Describe the elements of weather and climate</li> <li>Measure the elements of weather using different instruments.</li> <li>Explain the factors influencing</li> </ul>	<ul> <li>Appreciate the value of understanding the importance of layers of the atmosphere</li> <li>Appreciate the relationship between climate and human activities</li> </ul>	<ul> <li>Definition of atmosphere, weather and climate</li> <li>Atmosphere: definition, structure, composition and its importance</li> <li>The elements of weather and climate: temperature, precipitation, humidity, clouds, atmospheric pressure, winds and sunshine</li> <li>The weather station and its instruments</li> <li>Temperature: definition, factors influencing variation</li> </ul>	<ul> <li>Use geographical documents, the internet and the local environment to research the atmosphere, the elements of weather and the climate. Write down the findings.</li> <li>In groups, discuss the findings and make a presentation to the class.</li> <li>In a local environment, observe and find out the reasons for weather variation in different places. In groups, discuss the findings and make a presentation to the class.</li> <li>On a field study at a weather station perform an experiment and find out about the weather instruments and</li> </ul>

variation	temperature	of temperature and	how they are used.
<ul> <li>Identify how to</li> </ul>	variation	how to calculate	- In groups, discuss and write
measure	- Calculate	temperature (daily	down the findings from the
temperature.	temperature	temperature, mean	above observations and make
- State the major	values	daily temperature,	a presentation to the class and
processes of the	- Apply knowledge	mean monthly	a written report.
water cycle	to measure	temperature, mean	- In groups, use textbooks,
- Identify the	temperature.	annual temperature	diagrams or photographs to
different types of	- Explain the	and the mean annual	describe the atmosphere.
precipitation	processes of the	range)	- Use geographical documents
- State the different	water cycle.	- Precipitation:	and the internet to research
types/forms of	- In an experiment,	definition, forms of	the factors that cause the
rainfall	demonstrate how	precipitation, the	variation of different elements
- Explain the factors	to measure	water cycle, and	of weather. Record the
influencing	precipitation	measuring rainfall	findings.
atmospheric	- Locate zones of	(mean monthly rainfall	- In groups, discuss the
pressure variation.	high pressure and	and mean annual	findings, present them to the
- Identify the factors	low pressure on	rainfall).	class and produce a written
influencing	the earth's	- Atmospheric pressure:	report.
humidity and how	surface	definition, factors and	- In groups, use the internet,
to measure	- Explain the	measurement	geographical documents and
humidity	factors	- Humidity: definition,	the local environment to
- Identify the	influencing	factors and	research the factors
different types of	humidity and	measurement	influencing the climate and
winds	how to measure	- Wind: definition, types	write down the findings.
- State the different	humidity	and measurement	- In groups, discuss the findings
types of clouds	- Locate major	- Clouds: definition and	and make a presentation.
- Define sunshine.	planetary winds	type.	- In groups, use textbooks,
- Outline the factors	on the globe	- Sunshine: definition	climatic maps and the internet
influencing	- Describe different	and measurement	to locate the different climatic

<ul> <li>climate</li> <li>Locate the major climatic zones of the world</li> <li>Outline the relationship between climate and human activities</li> </ul>	<ul> <li>types of winds</li> <li>Differentiate between various types of clouds</li> <li>Explain how to measure sunshine</li> <li>Explain the factors that influence climate.</li> <li>Classify the major climatic zones of the world</li> <li>Explain the relationship between climate and human activities</li> </ul>	<ul> <li>Factors that inflictimate: latitude altitude, presen absence of water bodies, vegetatidistance from the human activitie relief, and ocean currents/wind.</li> <li>Climatic zones: tropical zone, temperate zone zone and moun zone.</li> <li>Impact of weath climate on hum activities</li> </ul>	luencezones of the world. Discusse,the findings and makepresentation to the class.er- Use research from theon,internet and geographicaldocuments to research theinfluence of weather andclimate on human activities In groups, discuss and notedown the findings, present tothe class and engage in Q&A.er andan
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Links to other subjects: Physics and Mathematics: instruments of measurement

**Assessment criteria:** Learners are able to correctly differentiate weather from climate and recognise the composition of the atmosphere and its importance. They are also able to correctly measure various elements of climate and classify the major climatic types.

Ma**terials:** Geographical documents, weather instruments, projectors, the internet, photographs, climate maps, climate documentaries, tactile and talking materials, local environment and recorders.
TOPIC AREA: PHYSICAL GEOGRAPHY			SUB-TOPIC AREA: VE	GETATION	
Year & Subject: S.1 Geog	graphy and Environment	Unit 9: Vegetation	l		No. of periods: 11
Key Unit Competence: T	o be able determine the rel	ationship between ve	egetation and human activ	rities	
	Learning Objectives				
Knowledge and understanding	Skills	Attitudes and values	Content	I	earning Activities
<ul> <li>Identify different vegetation types on maps</li> <li>Outline the factors that influence the distribution of vegetation.</li> <li>Outline the importance vegetation</li> <li>State the relationship between vegetation and human activities</li> </ul>	<ul> <li>Locate different types of vegetation on maps</li> <li>Discuss the factors that influence vegetation distribution</li> <li>Discuss the importance of vegetation to human activities</li> <li>Explain the relationship between vegetation and human activities</li> </ul>	<ul> <li>Appreciate the importance of vegetation</li> <li>Appreciate the classification of different types of vegetation according climate, soil, relief and human activities</li> </ul>	<ul> <li>Definition of vegetation and types (natural and artificial)</li> <li>Factors that influence natural vegetation types: climate, soils, relief, human activities, etc.</li> <li>Importance of natural vegetation.</li> <li>Relationship between vegetation types and human activities</li> </ul>	<ul> <li>In a field types in t groups, d to the cla</li> <li>In the cla documen different findings class.</li> <li>In small g of vegeta the class.</li> <li>In groups the intern local env relations and hum presenta</li> </ul>	study, observe the vegetation he surrounding environment. In iscuss the findings and present ss. ssroom, observe and interpret taries or photographs on vegetation types. Record the for discussion and present to the groups, discuss the importance tion and make a presentation to s, use geographical documents, net, maps, photographs and the ironment to analyse the hip existing between vegetation an activities. Make a tion followed by Q&A.
Links to other subjects:	Biology: plants		1.00		
Assessment criteria: Learners are able to correctly analyse the relationship between different vegetation types and human activities					
<b>Materials:</b> Geographical documents, the internet, photographs, illustrations, audio-visual films, slides of different vegetation types; maps of vegetation types, local environment, and tactile and talking materials.					

TOPIC AREA: PHYSICAL GEOGRAPHY SUI			B-TOPIC AREA: DRAINAGE			
Year & Subject: S.1 Geography and Env	vironment	Unit 10: General o	organisation of hydrography	No. of periods: 11		
Key Unit Competence: To be able to analyse the general organisation of hydrography and its relationship with human activities						
L	earning Objectives					
Knowledge and understanding	Skills	Attitudes and values	Content	Learning Activities		
<ul> <li>State the different types of water bodies</li> <li>Identify the major terminologies related to drainage</li> <li>Identify the major rivers of the world</li> <li>Explain the different parts of a river profile and its characteristics</li> <li>Identify different drainage patterns</li> <li>Explain the relationship between drainage and human activities</li> </ul>	<ul> <li>Observe and categorise different water bodies</li> <li>Explain the relationship between drainage and human activities.</li> <li>Draw a sketch map of the world to locate major rivers.</li> <li>Observe and categorise different drainage patterns in the environment.</li> </ul>	<ul> <li>Appreciate the beauty and value of water bodies.</li> <li>Show concern for the protection of water bodies.</li> <li>Appreciate the role of nature in creation and distribution of water bodies</li> </ul>	<ul> <li>Definition of drainage</li> <li>Different water bodies: oceans, seas, lakes, swamps, rivers and their types (perennial rivers, intermittent rivers and ephemeral rivers)</li> <li>Major rivers of the world</li> <li>Major parts of a river profile (youthful stage, middle stage and old stage) and their characteristics</li> <li>Drainage patterns: radial, dendritic, trellis, centripetal, and parallel</li> <li>The relationship between water bodies and human activities</li> </ul>	<ul> <li>Use sources like the internet, textbooks, maps and photographs to research different types of water bodies and terminologies related to drainage. Record the findings.</li> <li>In groups, discuss the findings and present to the class.</li> <li>In groups, observe various photographs and drainage maps of rivers and identify the major rivers of the world, major parts of a river profile and the different drainage patterns.</li> <li>Discuss the findings and make a presentation to the class.</li> </ul>		

				- Work in groups to discuss the relationship between water bodies and human activities. Make a presentation to the class and engage in Q&A.
Links to other subjects: Physics: velocity and volume.				
Assessment criteria: L activities	earners are able to corr	rectly analyse the ge	neral organisation of drainage	and its relationship with human

*Materials:* Geographical documents, drainage photographs, drainage maps, the internet, documentaries, tape measures, cameras, local environment, and tactile and talking materials.

<b>TOPIC AREA: PHYS</b>	PHYSICAL GEOGRAPHY SUB-TOPIC AREA: MAN AND HIS ENVIRONMENT				
Year & Subject: S.1 Geography and Environment			Unit 11: Hazards	No. of periods: 5	
Key Unit Competen	<b>ce:</b> To be able to propo	se responses to the ef	fects of natural and non-nat	ural hazards in their environment.	
	Learning Objectives				
Knowledge and understanding	Skills	Attitudes and values	Content	Learning Activities	
<ul> <li>Define a hazard.</li> <li>Identify different types of hazards</li> <li>State the causes and effects of hazards</li> <li>Explain human responses to natural and/or man made hazards in the short, medium and long term</li> </ul>	<ul> <li>Examine different types of hazards: natural hazards and manmade hazards.</li> <li>Analyse the causes and effects of hazards</li> <li>Propose possible solutions and preventive measures to the effects of hazards</li> </ul>	<ul> <li>Show concern for the preventive measures for hazards</li> <li>Learning from mistakes related to manmade hazards</li> <li>Show resilience or perseverance when hazards occur.</li> </ul>	<ul> <li>Definition of hazards</li> <li>Types of hazards: natural hazards (earthquakes, floods, drought, epidemic diseases, volcanic eruptions and landslides) and non- natural hazards (wars, famine, and accidents)</li> <li>Causes and effects of hazards</li> <li>Explain short term, medium term and long term responses to the effects of hazards</li> </ul>	<ul> <li>Use photographs, geographical documents, stories, testimonies, the internet, local environment or video clips to research the causes and effects of different types of hazards and write down the findings.</li> <li>In groups, discuss the findings and make presentation to the class followed by Q&amp;A.</li> <li>In groups, organise an awareness campaign on the causes and effects of hazards that may occur in and outside the school environment. Prepare to respond to a hazard.</li> </ul>	
Links to other subj	ects: History: wars and	famine			

Assessment criteria: Learners are able to properly propose appropriate responses to the effects of natural and non-natural hazards in the environment.

Materials: Geographical documents, photographs, maps, video clips, newspapers, journals, magazines, the internet/jaws software, local environment, and tactile and talking materials.

TOPIC AREA: HUMAN AND ECONOMIC GEOGRAPHY			SUB-TOPIC AREA: POPULATION, SETTLEMENT AND URBANISATION	
Year & Subject: S.1 Geography and En	vironment	Unit 12: Population and	settlement	No. of periods: 8
Key Unit Competence	: To be able to explain	general population concep	ots and settlement patterns	(rural and urban)
	Learning Objective	S		
Knowledge and Skills understanding		Attitudes and values	Content	Learning Activities
<ul> <li>Define population and associated concepts.</li> <li>Identify the types of settlement</li> <li>Define the concept of migration</li> </ul>	<ul> <li>Explain different population and settlement concepts</li> <li>Observe various types of settlement patterns</li> <li>Differentiate between internal and external migration.</li> </ul>	<ul> <li>Appreciate the various population concepts.</li> <li>Appreciate the classification of settlement types.</li> </ul>	<ul> <li>Definition of population</li> <li>The population structure and composition</li> <li>Population distribution and density.</li> <li>Population growth: birth rate, fertility rate, death rate, and growth rate (natural increase/decrease)</li> <li>Definition of settlement</li> <li>Types of settlements (rural and urban)</li> <li>Migration (internal and external)</li> </ul>	<ul> <li>Use geographical documents, textbooks, the internet to research population concepts and characteristics and write down the findings.</li> <li>In groups, discuss the findings and present to the class.</li> <li>Use maps, video clips or photographs, or field study to research various settlement patterns, their characteristics and reasons for their existence. Record the findings.</li> <li>In groups, discuss the findings and present to the class.</li> <li>In groups, use geographical</li> </ul>

				documents, maps, the	
				internet and local	
				environment to research	
				the concept of migration.	
				Write down the findings	
				and present to the class.	
Links to other subject	Links to other subjects: Mathematics: statistics. Economics: population				
Assessment criteria: L	Assessment criteria: Learners are able to fully explain population concepts and state the various types of settlements				
Materials: Geographical documents, photographs, maps, graphs, audio-visual video clips, newspapers, the internet, local environment, and tactile and talking materials.					

TOPIC AREA: HUMAN AND ECONOMIC GEOGRAPHY		S	UB-TOPIC AREA: ECONOMIC A STUDIES	ACTIVI	TIES AND DEVELOPMENT	
Year & Subject S.1 Geography an	d Environment		U	Jnit 13: Economic activities		No. of periods: 5
Key Unit Compete	<b>nce</b> : To be able to categ	gorise the types o	of v	various economic activities and	their iı	nportance on development
	Learning Objectives					
Knowledge and understanding	Skills	Attitudes and values	1	Content		Learning Activities
<ul> <li>Define economic activity and state various economic activities</li> <li>Identify the importance of various economic activities</li> </ul>	<ul> <li>Describe the various economic activities carried out around your school</li> <li>Explain the importance of economic activities on sustainable development</li> </ul>	<ul> <li>Understand other perspectives for equitable sustainable development</li> <li>Appreciate the importance o various economic activities.</li> </ul>	f	<ul> <li>Definition of economic activity</li> <li>Types of economic activities</li> <li>Primary activities e.g. forestry agriculture, mining and fishing</li> <li>Secondary activities e.g. manufacturing</li> <li>Tertiary activities: e.g. banking trade, education, tourism, transport and communication</li> <li>Importance of economic activities on sustainable development</li> </ul>	<ul> <li>Or</li> <li>scl</li> <li>re.</li> <li>ec</li> <li>an</li> <li>In</li> <li>an</li> <li>Ot</li> <li>sh</li> <li>ac</li> <li>In</li> <li>an</li> <li>of</li> <li>pr</li> <li>Q8</li> </ul>	a a field study around the hool, or at a local environment search the various types of onomic activities carried out d write down the findings. groups, discuss the findings d present to the class. oving various economic tivities and classify them. groups, discuss the findings d present to the class. groups, discuss the importance economic activities and esent to the class, supported by &A.
Links to other sub	jects: Economics: price	theory and prod	uct			
Assessment criter	a: Learners are able to	correctly categor	ise	various economic activities and	explai	n their importance.
environment, and to	actile and talking mater	ograpns, maps, g ials.	jra	pris, viueo clips, news papers, p	ooster j	ouper, the internet, reports, local

#### 5.3. Geography & environment syllabus for ordinary level: senior two

#### 5.3.1. Competences at the end of senior two

At the end of senior two, the learner will be able to:

- Analyse the earth's internal processes and the resultant relief features.
- Describe and explain the main concepts of human and economic geography applying them at a national and local level.
- Analyse the problems associated with the physical, human and economic aspects of Rwanda and suggest possible solutions.
- Read, interpret and draw sketches from maps.

### 5.3.2. Geography and Environment units for senior two

TOPIC AREA: PRACTICAL GEOGRAPHY			SUB-TOPIC AREA: MAP READING AND PHOTOGRAPHIC INTERPRETATION				
Year & Subject: S.2 Geography and Environment Unit 1: Map wo			interpretation		No. of periods: 3		
Key Unit Competenc	Key Unit Competence: To be able to demonstrate how to measure distance and area on a map						
	Learning Objectives						
Knowledge and understanding	Skills	Attitudes and values	Content	Learning Activities			
<ul> <li>Identify places and features on a map</li> <li>State the bearings and directions of places and features on a map</li> <li>Use different scales to measure distance and calculate areas from topographic maps</li> <li>State different ways of representing relief on maps.</li> </ul>	<ul> <li>Locate places and features on a map using grid references</li> <li>Demonstrate how to determine bearings and directions on topographic maps</li> <li>Measure distances and calculate areas on the map in relation to the actual distance on the surface ground area.</li> <li>Describe the relief</li> </ul>	<ul> <li>Appreciate the importance of measuring the actual distances and calculating areas on using a map.</li> <li>Appreciate the importance of measuring bearings and directions to locate places and features on a map.</li> </ul>	<ul> <li>Location of places and features on maps</li> <li>Direction and bearing</li> <li>Use of grid references</li> <li>Measuring distances and areas on a map</li> <li>Description of relief on a map: use of contours, use of colours, use of colours, use of</li> </ul>	<ul> <li>In g maj usir (gri</li> <li>In g pen bea</li> <li>In g cha and</li> <li>In g pain mea area</li> <li>In g con con of t</li> </ul>	groups, observe a topographic p and locate places and features ng the eastings and northings id lines). groups, use a protractor, dividers, acils and rulers to measure rings and directions. groups, use illustrations and a lkboard to show how bearings l directions are measured. groups, use a thread, a paper, a r of dividers, or a spur wheel to asure distances and calculate the as on a topographic map. groups, use topographic maps and tour lines to interpret the relief he area on maps.		

	of an area shown on		trigonometric		
	a topographic map		stations and		
			use of spot		
			heights		
Links to other subject	cts: Mathematics: bearing,	directions and distan	ces		
Assessment criteria:	Learners are able to correc	tly measure distances	s and calculate areas (	and bearings on maps	
Materials: Geographical documents, topographic maps/survey maps, rulers, pencils, threads, pair of dividers, illustrations, chalkboard,					
and tactile displays (a complete mathematical set).					

TOPIC AREA: PRACTICAL GEOGRAPHY			SUB-TOPIC AREA: MAP READING AND PHOTOGRAPHIC INTERPRETATION		
Year & Subject: S.2 Geography and Environment		Unit 2: Types of photographs		No. of periods: 3	
Key Unit Competence: To be able to interpret different types of photographs					
	Learning Objectives		Content	Learning Activities	
Knowledge and understanding	Skills	Attitudes and values			
<ul> <li>Name different types of photographs</li> <li>State different parts of a photograph</li> <li>Identify the importance of photographs</li> </ul>	<ul> <li>Observe and interpret photographs of the local environment</li> <li>Explain how different types of photographs are taken</li> <li>Describe the different parts of photographs</li> <li>Evaluate the importance of photographs</li> </ul>	<ul> <li>Appreciate the importance of photographs in their environment</li> <li>Show respect for the study of photographs in the subject of geography</li> </ul>	<ul> <li>Definition of photographs</li> <li>Types and parts of photographs</li> <li>Importance of photographs</li> </ul>	<ul> <li>In small groups, observe different samples of photographs and classify them according to how they were taken.</li> <li>In groups, divide a photograph into different parts (foreground, middle ground, and back ground) and describe the sub-divisions of the photo. Present the interpretation to the class.</li> <li>In groups, brainstorm the importance of photographs. Discuss the findings and make a presentation to the class followed by Q&amp;A.</li> </ul>	
Links to other subjects:	Physics: Optics				

**Assessment criteria:** Learners are able to properly differentiate between the different types and parts of photographs and evaluate the importance of photographs

Materials: Geographical documents, samples of photographs and cameras, projectors, projected photographs and the local environment.

TOPIC AREA: PRACTICAL GEOGRAPHY			SUB-TOPIC AREA: MAP RE PHOTO	ADING AND GRAPHIC INTERPRETATION
Year & Subject: S.2 Geography and E	nvironment	Unit 3: Interpretatio video images	on of photographs and	No. of periods: 3
Key Unit Competence: sketch diagrams of a pho	To be able to interpret to to be able to interpret to tograph	the relationships betwee	en physical and human feat	ures on photographs and draw
	Learning Objectives			
Knowledge and understanding	Skills	Attitudes and values	5 Content	Learning Activities
<ul> <li>Identify the sections of a photograph</li> <li>Identify physical and human features on a photograph or video image</li> <li>Interrelate human and physical features in a photograph or video image.</li> <li>Draw a sketch diagram of a photograph</li> <li>State ways to reduce and enlarge</li> </ul>	<ul> <li>Locate different sections of a photograph.</li> <li>Differentiate human and physical features in a photograph with the help of a key.</li> <li>Interpret the relationship between human and physical features in a photograph or video images</li> <li>Apply knowledge to draw a sketch of photograph</li> </ul>	<ul> <li>Appreciate the use of a photograph to interpret physical and human features</li> <li>Develop the ability to associate human and physical phenomena using photographs</li> <li>Appreciate the importance of reducing and enlarging photographs.</li> </ul>	<ul> <li>Types and divisions of a photograph</li> <li>Identification of human and physical features on photographs and video images</li> <li>Relationships between different features (human and physical aspects)</li> <li>Drawing sketch diagrams of photographs</li> <li>Reduction and enlargement of photographs</li> </ul>	<ul> <li>Use different categories of photographs or video images to identify the physical and human aspects in a photograph.</li> <li>Use photographs or video images to interpret the relationship between different features in a photograph. Deliver a presentation and produce a written report.</li> <li>Use photographs or video images to relate human activities and</li> </ul>

photographs	<ul> <li>Apply knowledge to reduce and enlarge photographs</li> </ul>			<ul> <li>physical features.</li> <li>Closely observe the features of a photograph and draw a sketch of it .</li> <li>Reduce or enlarge a part of or a whole photograph.</li> </ul>
Links to other subjects: Fine Art and Craft: graphics and design. Computer studies.				
Assessment criteria: Learners are able to draw sketches from photographs and critically analyse photographic interpretation				
Materials: Samples of different types of photographs, video images, the internet, and sketches drawn on charts.				

TOPIC AREA: PHYSICAL GEOGRAPHY			SUB-TOPIC AREA: UND	ERSTANDING THE EARTH
Year & Subject S.2 Geography and Envir	onment	Unit 4: Tectonic proce	sses	No. of periods: 10
Key Unit Competence: To	be able to explain the te	ectonic theory that has sha	aped the landscape we see	-
	Learning Objectives			
Knowledge and understanding	Skills	Attitudes and values	Content	Learning Activities
<ul> <li>Explain the internal landform processes in the Earth's crust</li> <li>Differentiate between faulting, folding and warping</li> <li>Locate areas of folding, faulting and warping in Africa</li> </ul>	<ul> <li>Infer landforms based on their environments.</li> <li>Evaluate the causes and consequences of faulting, folding, and warping.</li> </ul>	<ul> <li>Demonstrate an understanding of the internal structure of the earth</li> <li>Show concern for the effects of internal processes on landform evolution</li> <li>Show concern for the causes of natural disasters and the need to put in place protection measures</li> </ul>	<ul> <li>Internal landform processes: tectonic movements.</li> <li>Folding: causes of folding, resultant features, examples of areas of folding and effects of folding.</li> <li>Faulting: causes of faulting, types of faults, landforms, and examples of areas of faulting, effects of faulting.</li> <li>Warping: definition and landforms resulting from warping.</li> </ul>	<ul> <li>On a field study, observe different landscapes around the school environment. In groups, discuss the types of the landforms seen and present to the class.</li> <li>Use geographical documents, the internet, maps, photographs and illustrations to research different internal landform processes (folding, faulting, warping, vulcanicity and earthquakes), and the advantages and disadvantages of landforms resulting from internal processes.</li> </ul>

<ul> <li>Outline the causes and effects of vulcanism and earthquakes</li> <li>Name the major world regions affected by vulcanism and earthquakes</li> <li>Locate the major world regions affected by vulcanism and earthquakes</li> </ul>	- Appreciate the importance of volcanic features on the landscape	<ul> <li>Vulcanicity and volcanicity</li> <li>Definition of volcanicity and volcanicity.</li> <li>Causes of vulcanicity, landforms resulting from vulcanicity, distribution, types of volcanoes, types and causes of volcanic eruptions and effects of vulcanicity.</li> <li>Earthquakes: definition, instruments for measurement, distribution, causes and consequences of earthquakes.</li> </ul>	<ul> <li>Record the findings.</li> <li>In groups, discuss and compile the findings and present to the class.</li> <li>In groups, use a paper and a ruler to explain how folding, faulting and warping take place. Discover that when a paper is compressed it folds (folding), but a ruler breaks (faulting) and when heavy load is placed onto the suspending paper it bends inward.</li> <li>In groups, use photographs, textbooks, the internet and maps to research volcanic activity and the major characteristics of different volcanoes. Write down the findings and present to the class.</li> <li>In groups, use photographs, geographical documents and the internet to research the causes,</li> </ul>
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				distribution and consequences of earthquakes. Discuss the findings in a class presentation that is supported by a Q&A session.
Links to other subjects: Physics: convective and radioactive currents, forces of pressure and heat				

Assessment criteria: Learners are able to correctly analyse the internal landform processes and assess their effects on the physical and human environment

*Materials:* Geographical documents, text books, illustrations/diagrams, photographs, slide shows, video clips, manila paper, rulers, local environment, and tactile and talking materials.

TOPIC AREA: PHYSICAL GEOGRAPHY			SUB-TOPIC AREA: UNDERSTANDING THE EARTH		
Year & Subject: S.2 Geography and Environment Unit 5: The ext		ternal landform processes No. of periods: 6		No. of periods: 6	
Key Unit Competence: To investigate how erosion and weathering			have shaped the landsca	pe	
	Learning Objectives				
Knowledge and understanding	Skills	Attitudes and values	Content		Learning Activities
<ul> <li>Identify the agents of erosion</li> <li>Identify different forms of weathering and their causes and effects</li> </ul>	<ul> <li>Differentiate between the agents of erosion</li> <li>Analyse different forms of weathering, and their causes and effects.</li> </ul>	<ul> <li>Advocate for protecting the landscape against erosion</li> <li>Show concern for the effects of human activities on soil erosion and mass wasting</li> <li>Show continual desire to mitigate soil erosion and mass wasting</li> </ul>	<ul> <li>External land forming processes: erosion, weathering and mass wasting.</li> <li>Agents of erosion: running water, wind, glaciers, man, animals and gravity</li> <li>Types of erosion: gulley, rill, splash and sheet.</li> <li>Causes and effects of erosion on the landscape (landforms)</li> <li>Weathering: definition, forms, causes and impact of weathering on</li> </ul>	<ul> <li>Use diffination</li> <li>and proef profile</li> <li>and has one</li> <li>and has</li> <li>In g the rese geo stude</li> <li>Use geo stude</li> <li>the erose effe the</li> <li>In g and</li> </ul>	textbooks, photographs of erent weathering processes the internet to research the cesses of weathering and sion. Undertake a field study in area affected by soil erosion another where conservation been used. roups, discuss and write down findings from the previous earch and field study and sent to the class. a local environment, graphical documents, field dy and the internet to research different types of weathering, sion, and the factors and cts of weathering. Write down findings. roups, discuss the findings present to the class.

- State the forms	- Explain the forms		the landscape.	- In groups discuss the causes and	
<ul> <li>of mass wasting, and their causes and effects</li> <li>State the measures of controlling erosion and mass wasting</li> </ul>	<ul> <li>and their causes and effects</li> <li>Analyse the measures used to control erosion and mass wasting</li> </ul>		<ul> <li>Mass wasting: forms of mass wasting, and their causes and effects.</li> <li>Measures of controlling erosion and mass wasting</li> </ul>	<ul> <li>enects of weathering and erosion and make presentation to the class.</li> <li>In groups, use geographical documents, the internet and field study to research different types of mass wasting, and their causes and effects. Record the findings.</li> <li>Discuss the findings and make a presentation to the class which involves Q&amp;A.</li> </ul>	
Links to other subj	ects: Physics: acceleration	n, speed and gravity. Ch	emistry: chemical reactio	ons.	
Assessment criteric	<b>1:</b> Students are able to clar	ify the types, causes an	d effects of erosion, weath	hering and mass wasting.	
Materials: Diagram the local environmer	<i>Materials:</i> Diagrams, photographs, slide shows, video clips, textbooks, the internet, documentaries, tactile and talking materials and the local environment.				

TOPIC AREA: PHYSICAL GEOGRAPHY			SUB-TOPIC AREA: RELIEF	
Year & Subject: S.2 Geography and Environm	ient	Unit 6: Relief in Rwan	da	No. of periods: 4
<b>Key Unit Competence:</b> To be able to distinguish different forms of relief features of Rwanda and their relationship with hum activities				
Lear	ning Objectives			
Knowledge and understanding	Skills	Attitudes and values	Content	Learning Activities
<ul> <li>Give the coordinates and size of Rwanda</li> <li>Compare the and different forms of relief in Rwanda</li> <li>Give the relationship between reliefs and human activities in Rwanda</li> <li>Eva adv disa relief</li> <li>Des influerent on hacting</li> <li>Marching and the second seco</li></ul>	ate Rwanda on map of Africa I give its ographical ordinates w sketch grams of erent forms of efs in Rwanda. duate the vantages and advantages of ef features. scribe the uence of reliefs human ivities and show v land use ects reliefs	<ul> <li>Appreciate the size and location of Rwanda</li> <li>Appreciate the importance of reliefs to Rwanda</li> <li>Show respect for proper use and management of relief features in Rwanda</li> <li>Appreciate the relationship existing between relief and human activities</li> </ul>	Generalpresentation ofRwanda:- Location, size,administrativesubdivisions, andpopulation Land locked:definition,disadvantages andpossible solutions- The major forms ofrelief in Rwanda- Relief map ofRwanda- Advantages anddisadvantages ofrelief features inRwanda Relationshipbetween relief and	<ul> <li>Observe the map of Rwanda and write down the geographical coordinates.</li> <li>In groups, discuss the problems related to the land locked position of Rwanda and possible solutions. Present to the class.</li> <li>Using a relief map and geographical documents locate the major relief features of Rwanda and write down their characteristics and importance.</li> <li>In groups, discuss the findings and present to the class.</li> </ul>

			human	- Observe and record the
			activities/land use	relief features around
			in Rwanda	the school or the local
				environment. In groups
				discuss the relationship
				between reliefs and
				human activities and
				make a presentation to
				the class supported by
				Q&A.
Links to other subject	t <b>s:</b> Mathematics: algebra			
Assessment criteria:	Learners are able to corre	ectly differentiate the forms	s of relief in Rwanda and a	analyse their relationship with
human activities.				
Materials: Geographico materials.	al documents, the internet,	illustrations/diagrams, ma	ps, photographs, the local e	nvironment, tactile and talking

TOPIC AREA: PHYSICAL GEOGRAPHY		SUB-TOPIC AREA: ROCKS, WEATHERING AND SOILS			
Year & Subject: S.2 Geography and I	Environment	Unit 7: Weathering	and rocks	No. of periods: 3	
Key Unit Competend	<b>ce:</b> To be able to disting	guish between different	types of weathering a	nd their relationship with rocks	
	Learning Objectives				
Knowledge and understanding	Skills	Attitudes and values	Content	Learning Activities	
<ul> <li>State and define the different types of weathering</li> <li>Explain the difference that exists between different types of weathering</li> <li>State the factors influencing weathering</li> <li>State the relationship that exists between weathering and rock types</li> </ul>	<ul> <li>Describe the different types and processes of weathering</li> <li>Explain the main factors influencing the type and character of weathering.</li> <li>Analyse the relationship between weathering and rock types</li> </ul>	<ul> <li>Appreciate the relationship that exists between weathering and rock types</li> <li>Appreciate the factors influencing the type and character of weathering in rock and soil formations</li> </ul>	<ul> <li>Definition of weathering.</li> <li>Types of weathering: physical, chemical and biological.</li> <li>Factors influencing weathering: climate, rock types, vegetation, and relief.</li> <li>Relationship between weathering and different rock types</li> </ul>	<ul> <li>In a local environment, observe the different rocks and the type of weathering on each.</li> <li>Write down the findings for group discussion and present to the class.</li> <li>Use a wide range of geographical documents, photographs, the internet, and local examples (an onion, rock samples) to research the types of weathering. Record the findings.</li> <li>In groups, discuss the findings and present to the class.</li> <li>Using the internet and geographical documents, carry out research on the factors that influence weathering, and the relationship between weathering and rock types. Record the findings.</li> <li>In groups, discuss the findings and present to the class.</li> </ul>	
Links to other subje	Links to other subjects: Chemistry: chemical elements. Physics: pressure release and forces of compression				
Assessment criteria	: Learners are able to cl	arify the different types	of weathering and their	r relationship with rocks	
recorders.	icui uocuments, soli san	ipies, rock sumples, som	photographs, the intern	iei, iocui environment, tactile materials, ana	

TOPIC AREA: PHYSICAL GEOGRAPHY			SUB-TOPIC AREA: R S	OCKS, WEATHERING AND OILS
Year & Subject S.2 Geography and	Environment	Unit 8: Soils in Rwa	nda	No. of periods: 5
Key Unit Competer	Key Unit Competence: To be able to apply appropriate measures of soil conservation and soil erosion control in Rwanda			
	Learning Objectives			
Knowledge and understanding	Skills	Attitudes and values	Content	Learning Activities
<ul> <li>State the different types of soils in Rwanda</li> <li>State the importance of soil in Rwanda</li> <li>Locate areas of poor and fertile soil.</li> <li>Identify the causes and effects of soil erosion in Rwanda</li> <li>State different soil conservation methods in Rwanda</li> </ul>	<ul> <li>Classify different types of soils in Rwanda</li> <li>Evaluate the importance of soil in Rwanda</li> <li>Distinguish between poor and fertile soils and their characteristics.</li> <li>Observe areas at risk of soil erosion and describe attempts to maintain, conserve or improve the quality of the soils</li> <li>Carry out research in a local environment to understand the soil conservation methods in Rwanda.</li> </ul>	<ul> <li>Appreciate the importance of conserving soil in Rwanda</li> <li>Show concern for the effects and causes of soil erosion and impoverishment and suggest measures for soil conservation in Rwanda</li> <li>Show concern for soil conservation and its impact on agriculture as an important economic activity</li> </ul>	<ul> <li>Types of soils in Rwanda</li> <li>Importance and characteristics of different types of soils in Rwanda.</li> <li>Soil erosion and impoverishment (reduced soil producti-vity) in Rwanda</li> <li>Causes and effects of soil erosion in Rwanda</li> <li>Soil conservation methods in Rwanda</li> </ul>	<ul> <li>Though field study, observe and record samples of different soils. Discuss in groups and present to the class.</li> <li>In groups, categorise soils, discuss their importance, identify the causes and effects of soil erosion and present the findings in class.</li> <li>In groups, discuss the methods and importance of conserving soils. Make a presentation to the class and a written report.</li> <li>Observe the surrounding environment, or research using various geographical documents, photographs</li> </ul>

				<ul> <li>and the internet, to identify the soil conservation measures applied. Record the findings.</li> <li>In groups, discuss the findings and present to the class followed by a Q&amp;A</li> </ul>
				session.
Links to other subj	ects: Chemistry: pedology.			
Assessment criteric	a: Learners are able to correctly	apply appropriate meas	ures of soil erosion contro	ol in Rwanda.
Materials: Geograph soils, local environm	hical documents, soil samples, so ent, and tactile and talking mate	oil maps and photograp prials.	ohs, illustrations, text bo	oks, the internet, documentary on

TOPIC AREA: PHYSICAL GEOGRAPHY			SUB-TOPIC AREA: WEA	THER AND CLIMATE
Year & Subject: S.2 Geography and	Environment	Unit 9: Climate an Rwanda	d climate change in	No. of periods: 5
Key Unit Competen impacts on Rwanda v	<b>ce:</b> Analyse the climate with other countries.	of Rwanda and how	climate change has impact	ed on it. Compare and contrast the
	Learning Objectives			
Knowledge and understanding	Skills	Attitudes and values	Content	Learning Activities
<ul> <li>Describe the climate of Rwanda and the concept of climate change</li> <li>Identify the indicators for climate change in Rwanda</li> <li>State the causes and effects of climate change in Rwanda</li> <li>Outline the adaptation and mitigation measures for climate change in Rwanda</li> </ul>	<ul> <li>Observe the climate map of Rwanda and examine the climatic regions of Rwanda.</li> <li>Explain the factors influencing climate change in Rwanda.</li> <li>Analyse the effects of climate change in Rwanda.</li> <li>Carry out research on adaptation and mitigation. measures for climate change in Rwanda</li> </ul>	<ul> <li>Show concern for the effects of climate change in Rwanda and the need for mitigation measures</li> <li>Appreciate the importance of climate change and mitigation measures in Rwanda</li> <li>Show concern for man's misuse of the environment and show continual</li> </ul>	<ul> <li>Types of climate and seasons in Rwanda</li> <li>The concept of climate change: <ul> <li>Causes of climate change in Rwanda: pollution, human misuse of the environment</li> <li>Effects of climate change in Rwanda</li> <li>Climate change adaptation and mitigation in Rwanda</li> </ul> </li> </ul>	<ul> <li>Use text books and climate maps of Rwanda to identify the climatic regions and present the findings in class.</li> <li>In groups, use documents, textbooks and the internet to research and discuss the concept of climate change in Rwanda. Write down the findings and present to the class.</li> <li>Use documents, textbooks and the internet to research and discuss the factors leading to climate change in Rwanda and present to the class.</li> <li>Use documents in Rwanda and present to the class.</li> <li>Use documents in Rwanda and present to the class.</li> <li>Use the internet and geographical documents to research the causes, effects, adaptation and mitigation</li> </ul>

		desire to mitigate climate change		<ul> <li>measures for climate change in Rwanda. Record the findings.</li> <li>In groups, discuss the findings and present to the class</li> </ul>
Links to other subje	L <b>cts:</b> Biology: environment	al adaptation and dete	erminism	supported by a Q&A session.
<b>Assessment criteria:</b> Learners are able to investigate the causes and effects of climate change in Rwanda and propose the adaptation and mitigation measures for climate change.				
Materials: Geograph records. local environ	ical documents, climate j nent. and audio-visual cliv	photographs, climate s.	maps, tactile and talking	materials, weather instruments and

TOPIC AREA: PHYSICAL GEOGRAPHY		SUB-TOPIC AREA: VEGETATION		
Year & Subject: S.2 Geography and I	Environment	Unit 10: Vegetatio	on in Rwanda	No. of periods: 4
Key Unit Competence: To be able to explain the importance of dif			ferent types of vegetation i	n Rwanda
	Learning Objectives			
Knowledge and understanding	Skills	Attitudes and values	Content	Learning Activities
<ul> <li>Locate the major vegetation types in Rwanda</li> <li>State the factors that influence vegetation distribution in Rwanda</li> <li>State the impacts of man's activities on vegetation in Rwanda</li> <li>Outline the measures of conserving natural vegetation in Rwanda</li> </ul>	<ul> <li>Classify the different types of natural vegetation in Rwanda</li> <li>Explain the factors influencing vegetation distribution in Rwanda</li> <li>Discuss the impact of human activities on vegetation and suggest conservation measures</li> </ul>	<ul> <li>Appreciate the importance of different types of natural vegetation in Rwanda</li> <li>Show concern for the impacts of man's misuse of vegetation and control measures</li> <li>Appreciate the importance of conserving vegetation</li> </ul>	<ul> <li>Types of natural vegetation in Rwanda</li> <li>Factors that influence vegetation distribution in Rwanda.</li> <li>Importance of different vegetation types</li> <li>Impacts of man's activities on vegetation in Rwanda</li> <li>Measures to conserve the natural vegetation in Rwanda</li> </ul>	<ul> <li>Carry out field study in a natural vegetation area to observe and record the different types of vegetation. Discuss the findings in groups and present to the class.</li> <li>Using a wide range of geographical sources such as text books, maps and the internet, research factors that influence vegetation, the importance of vegetation, impacts of man's activities on vegetation and ways of conserving natural vegetation in Rwanda.</li> <li>Record the findings for group discussion and present to the class with a Q&amp;A session.</li> </ul>
LINKS to other subje	e <b>cus:</b> Blology: ecology. Ag	yricuiture: soiis. Anima mlain tha importance e	i nuspanary f the different tunes of week	tation in Dwanda
Assessment criterial	ical documents mans n	pium the importance of hotographs, illustratio	j the uijjerent types of Vege ns films slides of different i	uuuun in KWUNUU
tactile and talking dis	plays.	1101091 apris, 111050 at101	ns, juins, suces of utiferent	vegetation types, local environment, and

TOPIC AREA: PHYSICAL GEOGRAPHY			SUB-TOPIC AREA: DRAINAG	Æ
Year & Subject: S.2 Geography and Environment Unit 11: Drainage i		Unit 11: Drainage i	n Rwanda	No. of periods: 5
<b>Key Unit Competence:</b> To investigate the importance of drainage and the challenges of obtaining sustainable a Rwanda				ustainable and clean water in
	Learning Objectives			
Knowledge and understanding	Skills	Attitudes and values	Content	Learning Activities
<ul> <li>Identify the major rivers, swamps and lakes of Rwanda.</li> <li>State the mode of formation of lakes in Rwanda</li> <li>Suggest the importance of drainage in Rwanda</li> <li>Explain the challenges of obtaining sustainable and clean water in Rwanda.</li> <li>State methods of conserving</li> </ul>	<ul> <li>Draw a sketch map of Rwanda to show the major rivers, swamps and lakes.</li> <li>Explain the mode of formation of different types of lakes in Rwanda.</li> <li>Evaluate the importance of water bodies.</li> <li>Carry out research to find out the ways of purifying water.</li> <li>Apply different conservation methods in protecting water bodies.</li> </ul>	<ul> <li>Appreciate the importance of water resources in Rwanda</li> <li>Show concern for proper use and management of water resources in Rwanda.</li> </ul>	<ul> <li>Drainage in Rwanda <ul> <li>Major types of rivers in Rwanda: permanent and seasonal</li> <li>Major rivers, swamps and lakes in Rwanda</li> <li>Mode of formation of lakes in Rwanda</li> <li>Importance of water bodies in Rwanda (rivers, lakes and swamps)</li> <li>Challenges to obtaining sustainable and clean water in Rwanda: misuse of water sources, water pollution, sewage and garbage disposal, and water scarcity.</li> <li>Conservation and management methods of water bodies in Rwanda</li> </ul></li></ul>	<ul> <li>Use geographical documents, drainage maps of Rwanda and photographs to identify major rivers, swamps and lakes in Rwanda. Write down the findings.</li> <li>In groups, discuss the findings and present to the class.</li> <li>Use geographical documents, drainage maps and the internet to research the mode of formation of lakes in Rwanda, and the importance of water bodies (rivers, lakes and swamps). Write down the findings.</li> </ul>

water resources.				<ul> <li>In groups, discuss and compile the findings and present to the class.</li> <li>In groups, write down the challenges of</li> </ul>
				obtaining sustainable and clean water and suggest possible conservation and management measures. Present these to the class with a O&A sossion
Links to other subj	ects: Chemistry: water pu	rification and treatm	ient	with a gair session.
<b>Assessment criteria:</b> Learners are able to correctly locate the major water bodies of Rwanda, investigate the importance of drainage and understand the challenges of obtaining sustainable clean water in Rwanda.				
<b>Materials:</b> Geographical documents, brailed textbooks, atlases, maps, local environment, tactile or talking materials, drainage photographs, drainage maps, and the internet/jaws software.				

TOPIC AREA: PHYSICAL	GEOGRAPHY		SUB-TOPIC AREA: MAN AND HIS ENVIRONMENT		
Year & Subject: S.2 Geography and Envir	ronment	Unit 12: Environn Rwanda	nental conservation in	No. of periods: 4	
<b>Key Unit Competence:</b> To investigate the factors responsible for (over-exploitation) of environmental resources			environmental degradation	and the consequences of excessive use	
Le	arning Objectives				
Knowledge and understanding	Skills	Attitudes and values	Content	Learning Activities	
<ul> <li>Explain the meaning of environmental resources and environmental degradation</li> <li>Identify the various ways environmental resources are exploited</li> <li>Explain the causes and consequences of over exploitation of environmental resources</li> <li>State the measures of environmental conservation</li> </ul>	<ul> <li>Suggest proper ways of exploiting environmental resources to protect school and home environments.</li> <li>Analyse the causes and effects of over- exploitation of environmental resources.</li> <li>Analyse environmental conservation measures</li> </ul>	<ul> <li>Appreciate the importance of various environmental resources</li> <li>Show concern for the over exploitation of environmental resources and the effects</li> <li>Show respect for environmental conservation.</li> </ul>	<ul> <li>Definition of environmental resources and environmental degradation</li> <li>Types of environmental resources in Rwanda</li> <li>Ways of exploiting environmental resources</li> <li>Causes and effects of over-exploiting environmental resources</li> <li>Environmental resources</li> <li>Environmental conservation measures (ways of improving the environment)</li> </ul>	<ul> <li>Use geographical documents, the internet, photographs or local environment to identify the various environmental resources and methods to exploit them.</li> <li>In groups, discuss and compile the findings and present these to the class.</li> <li>Use the internet and text books to research the causes and effects of over-exploitation of environmental resources and the measures of environmental conservation. Record the findings.</li> <li>In groups, discuss the findings and present to the class followed by Q&amp;A.</li> </ul>	
Links to other subjects: Biology: ecology					
<b>Assessment criteria:</b> Learners are able to investigate the factors responsible for environmental degradation and the consequences of excessive use of environmental resources.					
<b>Materials:</b> Geographical documents, maps, the internet, talking and tactile maps, atlases, photographs, brailed textbooks and the local environment.					

#### **TOPIC AREA: HUMAN AND ECONOMIC GEOGRAPHY**

## SUB-TOPIC AREA: POPULATION, SETTLEMENT AND URBANISATION

Year & Subject S.2 Geography and Environment

Unit 13: Population in Rwanda

No. of periods: 7

**Key Unit Competence:** To be able to discuss the demographic problems and possible solutions in Rwanda

Learning Objectives				
Knowledge and understanding	Skills	Attitudes and values	Content	Learning Activities
<ul> <li>Outline the factors influencing population distribution and density in Rwanda</li> <li>Identify the reasons for the type of population structure of Rwanda</li> <li>Identify the causes and effects of migration/ population movements in Rwanda.</li> <li>State the reasons for rapid population growth and its effects on Rwanda</li> </ul>	<ul> <li>Analyse the factors influencing population distribution in Rwanda.</li> <li>Describe the population structure of Rwanda</li> <li>Explain factors for population movements in Rwanda.</li> <li>Evaluate the possible solutions to the problems related to population growth in Rwanda.</li> </ul>	<ul> <li>Show concern for the effects of population growth and the reasons for population control in Rwanda</li> <li>Appreciate the importance of population control measures in Rwanda</li> <li>Show respect for early sex education and delayed marriage in Rwanda.</li> <li>Shown concern</li> </ul>	<ul> <li>Population in Rwanda:</li> <li>Factors influencing population distribution and density in Rwanda</li> <li>Population structure in Rwanda (composition, age, and sex)</li> <li>Population movements/migrati on in Rwanda (causes and effects)</li> <li>Population growth and associated problems in Rwanda</li> <li>Measures for population control</li> </ul>	<ul> <li>In groups, use the population map of Rwanda to locate regions with high, moderate and low population densities. Discuss the findings.</li> <li>In groups, discuss factors that influence population distribution and make a presentation to the class.</li> <li>Use a population pyramid and demographic statistics of Rwanda to describe the population structure (age and sex pyramid) of Rwanda.</li> <li>In groups, discuss the findings and present to the class.</li> <li>Use text books and population documentaries to research the causes and effects of population movements in Rwanda.</li> </ul>

<ul> <li>State the different types of family planning methods</li> <li>Outline the causes, effects and possible control measures for early sex, health risks, HIV/AIDS and STDs.</li> </ul>	<ul> <li>Apply knowledge on control of rapid population growth in Rwanda</li> <li>Analyse the impact of early sex, health risks, HIV/AIDS, and STDs and propose different ways to prevent them in Rwanda.</li> <li>Analyse demographic problems in Rwanda and suggest solutions.</li> </ul>	for the consequences of migration and desire to control population movements in Rwanda	<ul> <li>in Rwanda</li> <li>(discouraging early sex, encouraging small families, abstinence, encourage monogamy, delayed marriage, discourage prostitution, etc.).</li> <li>Impact of early sex, health risks, HIV/AIDS, and STDs in Rwanda and possible prevention measures</li> <li>Demographic problems in Rwanda and their solutions</li> </ul>	<ul> <li>In groups, discuss the findings and present these to the class.</li> <li>Use geographical documents or the local environment to identify the problems of over population in Rwanda.</li> <li>In groups, discuss the findings and suggest possible measures to solve these problems. Present these to the class.</li> <li>In groups discuss the effects of early sex, health risks, HIV/AIDS, and STDs in Rwanda and suggest possible prevention measures. Present to the class.</li> <li>In groups, discuss the demographic problems of Rwanda and suggest possible solutions. Present to the class and engage in a Q&amp;A session.</li> </ul>
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Links to other subjects: Mathematics: statistics. Economics: population

Assessment criteria: Learners are able to correctly discuss the demographic problems of Rwanda and possible solutions

*Materials:* Geographical documents, talking and tactile materials, photographs, population maps, graphs, video clips, textbooks, local environment and the internet.

TOPIC AREA: HUMAN AND ECONOMIC GEOGRAPHY			SUB-TOPIC AREA: POP URE	PULATION, SETTLEMENT AND BANISATION
Year & Subject: S.2 Geography and Environment		Unit 14: Rural and urban settlement in Rwanda		No. of periods: 5
Key Unit Competence: To	be able to explain the impact o	of rural and urban settlemen	nt on the sustainable develo	opment of Rwanda
	Learning Objectives			
Knowledge and understanding	Skills	Attitudes and values	Content	Learning Activities
<ul> <li>Identify the different settlement patterns in Rwanda and outline their characteristics</li> <li>State the problems affecting rural settlements</li> <li>State the advantages and disadvantages of planned settlements (Imidugudu)</li> <li>Identify the major urban centres of Rwanda and outline their functions.</li> <li>State the factors that favour the growth and development of urban centres</li> <li>List the problems of urban centres in Rwanda</li> </ul>	<ul> <li>Categorise various settlement patterns.</li> <li>Investigate the problems affecting rural settlements and identify their solutions</li> <li>Explain the advantages and disadvantages of rural settlements</li> <li>Evaluate the impact of urbanisation on sustainable development in Rwanda and suggest possible solutions</li> <li>Analyse the factors which have favoured the growth and</li> </ul>	<ul> <li>Appreciate importance of settlement patterns in Rwanda</li> <li>Show concern for the advantages of planned settlement in Rwanda</li> <li>Show concern for the effects of urbanisation on sustainable development in Rwanda</li> <li>Appreciate the functions of urban centres.</li> <li>Show concern for problems or</li> </ul>	<ul> <li>Rural Settlement</li> <li>Rural settlement: grouped, nucleated, linear, isolated and planned settlements.</li> <li>Characteristics of rural settlements</li> <li>Problems affecting rural settlements and their solutions.</li> <li>Advantages and disadvantages of rural settlement schemes. (Imidugudu). Urban settlement</li> <li>Major urban centres in Rwanda</li> </ul>	<ul> <li>Use the local environment or maps and photographs to investigate different settlement patterns and their characteristics.</li> <li>In groups, discuss the findings and present these to the class.</li> <li>Use geographical documents, photographs, video clips or the local environment to research the advantages and disadvantages of different settlement patterns in Rwanda.</li> <li>In groups, discuss the findings and present these to the class.</li> <li>Carry out a field study in an</li> </ul>

solutions. - Outline the environmental protection measures applied in urban centres.	<ul> <li>centres in Rwanda.</li> <li>Evaluate the problems faced by urban dwellers and possible remedies</li> <li>Explain the environmental protection measures applied in urban centres.</li> </ul>	<ul> <li>experienced in urban centres in Rwanda and show a desire for proper urban planning</li> <li>Appreciate the importance of environmental protection in urban areas.</li> </ul>	<ul> <li>characteristics of urban settlement</li> <li>Functions of urban centres in Rwanda</li> <li>Factors influencing the growth of urban centres in Rwanda</li> <li>Problems faced by urban centres and their possible solutions</li> <li>The environ- mental protection measures in urban centres in Rwanda</li> </ul>	<ul> <li>find out the characteristics and functions of an urban centre.</li> <li>In groups, discuss the findings and present to the class. Produce a written report.</li> <li>Use the local environment to observe and record the problems of urban growth and possible control measures.</li> <li>In groups, discuss the findings and present these to the class.</li> <li>Using the internet and other geographical sources of data, research environmental protection measures in urban centres in Rwanda.</li> <li>In groups, discuss the findings and present these to the class.</li> </ul>
Assessment criteria: Learn solutions.	ners are able to investigate the	characteristics and the impo	ortance and problems of ru	ral and urban settlement and propose

Materials: Geographical documents, talking and tactile materials, photographs, graphs, population maps, graphs, video clips, textbooks, local environment and the internet.

TOPIC AREA: HUMAN AND ECONOMIC GEOGRAPHY			SUB-TOPIC AREA: EC	CONOMIC ACTIVITIES AND EVELOPMENT STUDIES
Year & Subject: S.2 Geography and Env	vironment	Unit 15: Agricultural	systems in Rwanda	No. of periods: 9
Key Unit Competence:	To be able to investigate th	ne impact of various agric	ultural activities on susta	inable development in Rwanda
	Learning Objectives			
Knowledge and understanding	Skills	Attitudes and values	Content	Learning Activities
<ul> <li>List the different agricultural systems in Rwanda</li> <li>State the major crops grown in Rwanda.</li> <li>Identify the problems facing livestock farming in Rwanda.</li> <li>State the problems affecting agriculture and solutions.</li> <li>Outline the reasons for agricultural modernisation in Rwanda.</li> <li>State the advantages and disadvantages of plantation farming</li> </ul>	<ul> <li>Classify different agricultural systems in Rwanda</li> <li>Draw a map of Rwanda showing the major crops grown in the country.</li> <li>Explain the problems faced by livestock farming and suggest possible solutions.</li> <li>Explain the factors hindering agricultural modernisation and suggest possible solutions</li> <li>Carry out research to find out the reasons</li> </ul>	<ul> <li>Appreciate the importance of agricultural modernisation on sustainable development in Rwanda</li> <li>Show respect for solutions to the problems affecting livestock farming in Rwanda</li> <li>Show concern for the challenges affecting the development of the agricultural sector in Rwanda and the need to modernise</li> </ul>	<ul> <li>Definition of agriculture</li> <li>Types of agricultural systems in Rwanda: subsistence, commercial, irrigation farming, etc.</li> <li>Major crops produced in Rwanda (food crops and cash crops)</li> <li>Livestock farming (traditional and modern)</li> <li>Problems and solutions for agriculture in</li> </ul>	<ul> <li>Use geographical documents, the local environment, maps and the internet to identify the agricultural systems and major crops of Rwanda. Write down the findings.</li> <li>In groups, discuss the findings a present to the class.</li> <li>In groups, discuss the types of agriculture available in the area surrounding the school and make a presentation.</li> <li>Use geographical documents, the internet and the local environment to analyse the problems</li> </ul>

	<ul> <li>modernisation and modern methods of agriculture in Rwanda.</li> <li>Analyse the advantages and disadvantages of plantation farming in Rwanda</li> </ul>	<ul> <li>Show concern for the impact of agriculture on the development of Rwanda.</li> <li>Appreciate the advantages and disadvantages of plantation farming in Rwanda</li> </ul>	<ul> <li>Agriculture modernisation: factors favouring its implementation, advantages and disadvantages.</li> <li>Impact of agriculture on sustainable development in Rwanda</li> <li>The advantages and disadvantages of plantation farming in Rwanda.</li> </ul>	<ul> <li>and livestock farming in Rwanda. Suggest solutions.</li> <li>In groups, discuss and record the findings and present to the class.</li> <li>In groups discuss the reasons for the modernisation of agriculture in Rwanda.</li> <li>Write down the findings and present to the class with a Q&amp;A session.</li> </ul>		
Links to other subjects: Economics: production. Mathematics: statistics. Agriculture: crop production and animal husbandry.						
<b>Assessment criteria:</b> Learners are able to investigate the importance of various agricultural activities in Rwanda, their problems and solutions.						
Materials: Geographica environment and photogr	<b>Materials:</b> Geographical documents, talking and tactile materials, photographs, graphs, the internet, maps, atlases, the local environment and photographs.					

#### **TOPIC AREA: HUMAN AND ECONOMIC GEOGRAPHY**

# SUB-TOPIC AREA: ECONOMIC ACTIVITIES AND DEVELOPMENT STUDIES

Year & Subject: S.2 Geography and Environment

Unit 16: Forestry in Rwanda

No. of periods: 4

Key Unit Competence: To be able to investigate the impact of various forestry activities on sustainable development in Rwanda

Learning (	Objectives			
Knowledge and Ski understanding	ills Attitudes and valu	es Content	Learning Activities	
<ul> <li>Define a forest and forestry</li> <li>Name the major forest types and locate them in</li> <li>State the forests of the economic development of Rwanda</li> <li>Identify the causes of deforestation and its solutions in Rwanda</li> <li>Give examples of areas that are under risk of deforestation in the forestation in the risk of deforestation in the risk of the risk</li></ul>	owledge of o promote ion and ion and 	<ul> <li>Definitions of forest, forestry and silviculture</li> <li>Types of forests and major forest areas in Rwanda</li> <li>Importance of forests in Rwanda.</li> <li>The concept of deforestation: causes, effects and control measures.</li> <li>Areas under the risk of deforestation in Rwanda</li> <li>Impact of forestry on sustainable development in Rwanda.</li> </ul>	<ul> <li>Use a map of Rwanda, geographical documents and the internet to research the different forest areas and types of forests in Rwanda.</li> <li>Record the findings for discussion and present to the class.</li> <li>In groups discuss the importance of forests in Rwanda and present to the class supported by a Q&amp;A session.</li> <li>In groups discuss causes, effects and solutions to deforestation in Rwanda and present to the class.</li> <li>Using geographical toytbooks mans</li> </ul>	
istainable	photographs and the			
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evelopment in	internet, research areas			
wanda.	affected by deforestation			
	in Rwanda and present			
	to the class.			
	- In small groups, discuss			
	the effects of forestry on			
	sustainable development			
	and present to the class			
	with a Q&A session.			
ectly explain the importance o	of forests, causes and effects of deforestation and			
Materials: Geographical documents, talking and tactile materials, photographs, internet, video clips, GPS, textbooks on forestry, maps,				
	stainable velopment in /anda. ////////////////////////////////////			

TOPIC AREA: HUMAN AND ECONOMIC GEOGRAPHY		SUB-TOPIC AREA: ECONOMIC ACTIVITIES AND DEVELOPMENT STUDIES		
Year & Subject: S.2 Geography and E	nvironment	Unit 17: Fishing and Rwanda	d fish farming in	No. of periods: 4
<b>Key Unit Competenc</b> Rwanda	e: To be able to investig	gate the impact of fish	ing and fish farming acti	vities on sustainable development in
	Learning Objectives			
Knowledge and understanding	Skills	Attitudes and values	Content	Learning Activities
<ul> <li>Identify the major fish species caught and major fishing areas of Rwanda.</li> <li>State the factors influencing the development of fishing and fish farming in Rwanda</li> <li>Name the methods of fishing used in Rwanda</li> <li>Outline the problems affecting fishing and fish farming in Rwanda.</li> <li>State the fish</li> </ul>	<ul> <li>Analyse the role of pisciculture in the development of the fishing industry</li> <li>Analyse the factors responsible for the growth of the fishing industry in Rwanda</li> <li>Examine the fishing methods used in the fishing sector in Rwanda.</li> <li>Explain the problems of fishing in Rwanda.</li> <li>Describe the fish preservation and</li> </ul>	<ul> <li>Appreciate the importance of fishing and fish farming in Rwanda.</li> <li>Appreciate the importance of conserving fish in Rwanda.</li> <li>Show concern for the low levels of fish harvesting in Rwanda and the desire to increase fish production.</li> </ul>	<ul> <li>Major fishing and fish farming areas in Rwanda</li> <li>Factors influencing fish farming in Rwanda</li> <li>Methods of fishing used in Rwanda (traditional and modern)</li> <li>Problems faced by fishing and fish farming in Rwanda and possible solutions</li> <li>Fish preservation and conservation in Rwanda</li> </ul>	<ul> <li>Use a map of Rwanda, field visits and various geographical documents to locate and compare major fishing and fish farming areas in Rwanda. Identify the factors for fishing and fish farming, write down the findings and make relevant conclusions.</li> <li>In groups, discuss and compile the findings and present to the class followed by Q&amp;A.</li> <li>Carry out a field study to a fishing site or use other resources like the internet or observation of photographs related to fishing to identify methods used in catching fish in Rwanda. Write a report.</li> <li>In groups, discuss the findings</li> </ul>

preservation and conservation methods used in Rwanda.	conservation methods used in Rwanda.			<ul> <li>and present to the class.</li> <li>Use geographical documents, the internet and photographs to research the problems affecting fishing in Rwanda, possible solutions, and fish conservation and preservation methods. Record the findings and suggest ways of increasing fish production.</li> <li>In groups, discuss and compile the findings and present to the</li> </ul>	
				class.	
Links to other subjects: Biology: aquatic life. Entrepreneurship: fish farming and management.					
Assessment criteria: Rwanda.	Learners are able to inve	estigate the impact of f	ishing and fish farming ac	tivities on sustainable development in	
Materials: Geographic clips, surrounding fish p	al documents, brailed te. conds, Jaws software and	xtbooks, maps, photog the local environment.	raphs, internet, tactile and	l talking materials, slide shows, video	

#### **TOPIC AREA: HUMAN AND ECONOMIC GEOGRAPHY**

# SUB-TOPIC AREA: ECONOMIC ACTIVITIES AND DEVELOPMENT STUDIES

#### Year & Subject: S.2 Geography and Environment

Unit 18: Mining and quarrying in Rwanda

No. of periods: 4

**Key Unit Competence:** To be able to investigate the impact of mining and quarrying activities on sustainable development in Rwanda

Learning Objectives				
Knowledge and understanding	Skills	Attitudes and values	Content	Learning Activities
<ul> <li>Define mining and quarrying.</li> <li>Name the major quarrying and mining locations in Rwanda.</li> <li>Explain the factors that influence mineral exploitation in Rwanda.</li> <li>State the problems resulting from mining and quarrying in Rwanda.</li> <li>Outline the future prospects for mineral</li> </ul>	<ul> <li>Analyse the effects of mining on the environment.</li> <li>Draw a map of Rwanda showing the mineral and mining areas in Rwanda.</li> <li>Analyse the factors influencing mineral exploitation in Rwanda and relate them with the relief of the country.</li> <li>Explain the</li> </ul>	<ul> <li>Appreciate the usefulness of mining and quarrying in Rwanda.</li> <li>Show concern for areas under risk of over exploitation of rock materials and the desire to protect the mining areas.</li> <li>Show respect for developing awareness on the problems caused by quarrying and mining in</li> </ul>	<ul> <li>Definitions: mining and quarrying.</li> <li>Minerals and mining areas in Rwanda: mineral map</li> <li>Quarrying: sand, clay, rocks and limestone</li> <li>Methods of mining in Rwanda</li> <li>Factors influencing mineral exploitation in Rwanda</li> <li>Importance of mining and quarrying in Rwanda</li> <li>Problems hindering mining and quarrying in Rwanda. Examples of areas affected by over exploitation of</li> </ul>	<ul> <li>Using a map, find out about the major minerals and mining areas in Rwanda and write down the findings in note books.</li> <li>Use geographical documents, the internet and photographs of mines to observe and describe the methods of mining used in Rwanda.</li> <li>Use geographical documents, photographs and the internet to research factors influencing mining and the importance of mining to the economy of Rwanda.</li> <li>In groups, discuss the findings and present these to the class.</li> <li>Use geographical documents, the internet or the local environment to find out the effects of quarrying</li> </ul>

exploitation in Rwanda.	future prospects of mining and solutions to the problems affecting mining in Rwanda.	Rwanda.	<ul> <li>mineral resources</li> <li>Effects of mining on the natural environment in Rwanda</li> <li>Future prospects of mining and solutions to the problems affecting mining in Rwanda</li> </ul>	<ul> <li>and mining on the environment, problems affecting mining, and possible solutions. Write down the findings.</li> <li>In groups, discuss and write down the findings and present to the class followed by Q&amp;A.</li> <li>Hold a group discussion about issues related to mining such as pollution, land degradation, water</li> </ul>	
				contamination and accidents. Present to the class the findings.	
Links to other subj	ects: Chemistry: miner	al elements/ores.			
Assessment criteria: Learners are able to correctly locate the major mining areas of Rwanda and discuss the impact of mining on the economic development of the country.					
<b>Materials:</b> Geographical documents, maps, photographs, the internet, video clips, textbooks, local environment, tactile and talking materials, mineral and rock samples.					

TOPIC AREA: HUMAN AND ECONOMIC GEOGRAPHY		SUB-TOPIC AREA: ECONOM DEVELOI	IC ACTIVITIES AND PMENT STUDIES	
Year & Subject: S.2 Geography and E	nvironment	Unit 19: Power and energy in Rwanda		No. of periods: 5
Key Unit Competence: To be able to investigate the impact of powe		r and energy production on susta	ainable development of Rwanda	
Learning Objectives				
Knowledge and understanding	Skills	Attitudes and values	Content	Learning Activities
<ul> <li>State the various categories of renewable and non-renewable energy sources</li> <li>Explain the major sources of energy and power available in Rwanda</li> <li>Outline problems and future prospects for power and energy production in Rwanda.</li> </ul>	<ul> <li>Differentiate between renewable and non-renewable energy resources</li> <li>Explain the reasons for increased power and energy production in Rwanda</li> <li>Draw a map showing the energy resources of Rwanda</li> <li>Analyse the problems hindering effective</li> </ul>	<ul> <li>Appreciate the importance of renewable and non-renewable energy resources in Rwanda</li> <li>Appreciate the importance of power and energy for sustainable development in Rwanda</li> <li>Show concern for the problems affecting power and energy production and a desire to develop alternative sources of power in Rwanda</li> <li>Show</li> </ul>	<ul> <li>Renewable and non- renewable energy resources</li> <li>Definition: energy resources, renewable and non-renewable energy resources.</li> <li>Importance of power and energy resources in Rwanda</li> <li>Problems and future prospects for power and energy production in Rwanda</li> <li>Efficient utilisation of power and energy resources in Rwanda</li> </ul>	<ul> <li>Use text books, the internet and other geographical resources to find out the major forms of power and energy and the importance of power and energy in Rwanda.</li> <li>In groups, discuss and write down the findings and present them to the class.</li> <li>Use the internet, field visits (sites of power energy production), textbooks and other geographical documents to identify the problems associated with power and energy production and consumption in Rwanda.</li> </ul>

	exploitation and utilisation of power and energy in Rwanda - Explain methods of efficient utilisation of power and energy resources in Rwanda	perseverance for the power shortages and its effects to the development of industries - Show concern for appropriate utilisation of power and energy resources in Rwanda		<ul> <li>In groups, discuss the findings and draw relevant conclusions. Present the findings to the class followed by Q&amp;A.</li> <li>In groups, discuss the future prospects for power and energy production in Rwanda based on a follow up of the previous field visit to a power and energy source. Draw relevant conclusions and present to the class.</li> <li>Use documents and the internet to find out how other countries effectively utilise power and energy resources for future use.</li> <li>In groups, discuss the findings for class presentation followed by Q&amp;A.</li> </ul>	
Links to other subjects: Physics: power and mechanical energy sources.					
<b>Assessment criteria:</b> Learners are able to demonstrate an understanding of the impact of power and energy production on the economic development of the country.					
Materials: Geographical documents, maps, atlas, talking and tactile materials, brailed textbooks, photographs, internet/Jaws software,					

*field study resources and the local environment.* 

# SUB-TOPIC AREA: ECONOMIC ACTIVITIES AND DEVELOPMENT STUDIES

Year & Subject: S.2 Geography and Environment

Unit 20: Industry in Rwanda

No. of periods: 4

Key Unit Competence: To be able to investigate the impact of industrial growth on sustainable development of Rwanda

Learning Objectives				
Knowledge and	Skills	Skills Attitudes and values		Learning Activities
understanding				
- Outline the	- Examine	- Advocate for	<ul> <li>Classification of</li> </ul>	<ul> <li>Use geographical documents,</li> </ul>
major types of	factors	increased	industries	the internet, photographs and
industries in	influencing the	industrial	- Factors for location,	the local environment to
Rwanda	location,	development	growth and	categorise industries and
- Identify factors	growth and	with special focus	development of	identify the factors for the
for the location,	development	on environmental	industries in	location and development of
growth and	of industry in	protection	Rwanda	industries in Rwanda. Write
development of	Rwanda.	- Appreciate the	- Importance of	down the findings.
industries in	- Describe the	importance of	industries in	- In groups, discuss the findings
Rwanda.	importance of	industrial growth	Rwanda.	and present them to the class.
- State the	industrial	in Rwanda	<ul> <li>Problems and</li> </ul>	- Use documents, the internet,
importance of	development	- Show concern for	effects of industrial	photographs and the local
industries to the	to the	other	development in	environment to research the
economy of	economy of	perspectives	Rwanda	importance and effects of
Rwanda	Rwanda.	related to		industrial development in

- Identify the	- Research the	industrialisation		Rwanda, the problems of
problems and	effects of	in comparison to		industrial development and
effects of	industrial	development of		possible solutions. Write
industrial	development	other economic		down the findings.
growth and	in Rwanda.	activities in an		- In groups, discuss the
development in		area.		findings, present to the class
Rwanda.				and engage in Q&A.
Links to other subjects: Economics and Entrepreneurship: factors for location and localisation.				
Assessment criteria: Learners are able to explain the impact of industrial growth on the economic development of the country.				
Materials: Geographical documents, maps, photographs, slide shows, video clips, talking and tactile materials, surrounding				
industries in the country, instructional charts, internet/Jaws software and the local environment.				

### **TOPIC AREA: HUMAN AND ECONOMIC GEOGRAPHY**

# SUB-TOPIC AREA: ECONOMIC ACTIVITIES AND DEVELOPMENT STUDIES

Year & Subject:
S.2 Geography and Environment

Unit 21: Transport, communication and trade in Rwanda

No. of periods: 4

**Key Unit Competence:** To be able to investigate the impact of transport, communication and trade on sustainable development in Rwanda

Learning Objectives				
Knowledge and understanding	Skills	Attitudes and values	Content	Learning Activities
<ul> <li>Name types of transport and communication</li> <li>State the importance of the various types of transport and communication in Rwanda</li> <li>State the problems and solutions of transport and communication.</li> <li>Identify the types and importance of trade in Rwanda</li> <li>State the problems associated with</li> </ul>	<ul> <li>Describe the different types of transport and communication systems in Rwanda.</li> <li>Explain the advantages and disadvantages of various types of transport and communication in Rwanda</li> <li>Examine the problems resulting from land lockedness and suggest possible solutions</li> </ul>	<ul> <li>Appreciate the importance of transport and communication in the development of trade</li> <li>Show concern for the land lockedness of Rwanda and a desire to develop transport and communication networks</li> <li>Appreciate the importance of trade to the economic development of</li> </ul>	<ul> <li>Transport and Communications</li> <li>Types of transport and communication in Rwanda</li> <li>Advantages and disadvantages of transport and communication systems in Rwanda</li> <li>Problems and solutions of transport and communication in Rwanda</li> </ul>	<ul> <li>Using geographical documents, the internet, photographs and field trips to transport and communication centres, research the various types of transport and communication, the economic importance of transport and communication, the problems of transport and communications. Suggest possible solutions and record the findings.</li> <li>In groups, discuss, write down the findings and present to the class.</li> <li>Use geographical documents</li> </ul>
trade in Rwanda and possible	<ul> <li>Describe the trade structure in Rwanda.</li> </ul>	Rwanda - Appreciate the role	<b>Trade in Rwanda</b> - Types of Trade	and the internet to research different types of trade, the

solutions - Identify regional and international trade partners of Rwanda	- Analyse the problems of trade and possible solutions to trade	played by regional and international trade partners in development of trade in Rwanda	<ul> <li>Importance of trade in Rwanda</li> <li>Problems affecting trade and possible solutions in Rwanda</li> <li>Regional and international trade partners with Rwanda</li> </ul>	<ul> <li>importance of trade, the problems of trade. Suggest possible solutions and record the findings.</li> <li>In groups, discuss the findings and present them to the class.</li> <li>Use the internet, geographical documents and textbooks to research Rwanda's various regional and international trade partners. Becord the</li> </ul>		
				<ul> <li>findings.</li> <li>In groups, discuss the findings, present to the class, and engage in Q&amp;A session.</li> </ul>		
Links to other subjects	Economic: trade. Entrepr	eneurship: education.				
<b>Assessment criteria:</b> Learners are able to explain the impact of transport, communication and trade in the economic development of Rwanda.						
<i>Materials:</i> Geographica Jaws software and the lo	l documents, maps, photog cal environment.	graphs, atlases, slide sho	ws, video clips, tactile o	and talking materials, the internet,		

TOPIC AREA: HUMAN GEOGRAPHY	AND ECONOMIC	SUB-TOPIC AREA: ECONOMIC ACTIVITIES AND DEVELOPMENT STUDIES		
Year & Subject: S.2 Geography and En	vironment	Unit 22: Tourism in I	Rwanda	No. of periods: 4.
Key Unit Competence: To be able to investigate the impact of tourism on sustainable development of Rwanda				
L	earning Objectives			
Knowledge and understanding	Skills	Attitudes and values	Content	Learning Activities
<ul> <li>Identify the different tourist attractions in Rwanda.</li> <li>Identify the importance of tourism to the economy of Rwanda.</li> <li>Explain the problems and future prospects of tourism in Rwanda.</li> <li>Identify the relationship between tourism in Rwanda with regional countries: Kenya, Uganda,</li> </ul>	<ul> <li>Compare the various tourist potentials in Rwanda with those in other countries</li> <li>Evaluate the importance of tourism in Rwanda</li> <li>Analyse the problems affecting tourism and suggest possible solutions.</li> <li>Analyse the relationship between</li> </ul>	<ul> <li>Appreciate the importance of tourism to the economic development of Rwanda</li> <li>Appreciate the reasons in favour of conservation for tourism in Rwanda</li> <li>Propose the solutions to the problems with tourism in Rwanda.</li> <li>Relate development</li> </ul>	<ul> <li>Definition of tourism</li> <li>Tourist sites in Rwanda: historical and natural sites, etc.</li> <li>Factors for tourism development in Rwanda</li> <li>Importance of the tourism industry to the economy of Rwanda</li> <li>Problems affecting tourism and possible solutions in Rwanda</li> <li>Relationship between tourism in</li> </ul>	<ul> <li>Use geographical documents, maps, photographs, the internet and field study to locate the major tourist sites in Rwanda and identify factors for tourism development. Write down the findings.</li> <li>In groups, discuss the findings and present them to the class.</li> <li>In groups, discuss the importance of the tourism industry to the economy of Rwanda. Present to the class and engage the class in Q&amp;A.</li> <li>Use geographical documents and the internet to identify the problems with tourism in Rwanda and possible solutions. Record the findings.</li> </ul>
regional countries: Kenya, Uganda, and Tanzania	relationship between tourism in	- Relate development of tourism in	<ul> <li>Relationship between tourism in Rwanda and</li> </ul>	Rwanda and possible solutions. Record the findings. - In groups, discuss the findings

	Rwanda with regional countries	Rwanda with regional countries.	regional countries: Kenya, Uganda and Tanzania.	<ul> <li>and present them to the class.</li> <li>In groups, debate the relationship between tourism in Rwanda and tourism in regional countries.</li> </ul>
Links to other subjects: Economics and Entrepreneurship: trade.				
<b>Assessment criteria:</b> Learners should be able to correctly identify tourist attractions in Rwanda, analyse the importance of tourism, challenges and possible solutions.				
<b>Materials:</b> Geographical documents, maps, photographs, atlases, slide shows, video clips, tactile and talking materials, internet, Jaws software and the local environment.				

#### 5.4. GEOGRAPHY & ENVIRONMENT SYLLABUS FOR ORDINARY LEVEL: SENIOR THREE

#### 5.4.1. Competences at the end of senior three

At the end of senior three, the learner will be able to:

- Analyse the earth's external processes and the resultant relief features
- Evaluate the consequences associated with the physical, human and economic aspects of Africa, China and suggest possible solutions.
- Compare the economic development of Africa to the USA, Brazil, Netherlands, Switzerland, Germany and Japan.
- Read and interpret physical and human features on maps and photographs

## 5.4.2. Geography and Environment units for senior three

TOPIC AREA: PRAC	TICAL GEOGRAPHY		SUB-TOPIC AREA: MAP READING AND PHO INTERPRETATION	OTOGRAPHIC
Year & Subject: S.3 Geography and Environment Unit 1: Map work inte			rpretation	No. of periods: 4
<b>Key Unit Competence:</b> To be able to interpret the relationship between physical and human features on maps and draw sketch diagrams of maps				
	Learning Objectives			
Knowledge and understanding	Skills	Attitudes and values	Content	Learning Activities
<ul> <li>Identify physical and human features on a map</li> <li>State the relationship between human and physical features on maps.</li> <li>Draw sketches from a map</li> <li>Reduce and enlarge maps</li> </ul>	<ul> <li>Differentiate the human and physical features on a map with the help of key</li> <li>Interpret the relationship between human and physical features on maps.</li> <li>Apply knowledge to draw a sketch map.</li> <li>Apply knowledge to reduce and enlarge a map.</li> </ul>	<ul> <li>Appreciate the use of topographic maps to interpret physical and human features.</li> <li>Develop the ability to associate human and physical phenomena using maps.</li> <li>Appreciate the importance of reducing and enlarging topographic maps.</li> </ul>	<ul> <li>Identification of human and physical features on a map</li> <li>Relationships between different features (human and physical aspects)</li> <li>Drawing sketch maps and sketch diagrams</li> <li>Reduction and enlargement of maps</li> </ul>	<ul> <li>Use a topographic map to identify the human and physical aspects, and interpret the relationship between different features on a map. Record the findings.</li> <li>In groups, discuss the findings and present to the class. Encourage Q&amp;A.</li> <li>Use a topographic map and the key to observe and record</li> </ul>

				the features on the
				map.
				- Use topographic
				maps, geographical
				documents, and
				diagrams to
				identify the
				required
				techniques to draw
				a sketch map of
				enlarged and
				reduced maps.
Links to other subj	ects: Fine Art and Comput	ter Studies: drawing and de	esign	
Assessment criteria: Learners are able to correctly draw map sketches and interpret physical and human features on maps.				
Materials: Topograp	ohic maps/survey maps, ru	llers, pencils, textbooks, the	e internet and geographical do	ocuments.

TOPIC AREA: PHYSICAL GEOGRAPHY		SUB-TOPIC AREA: RELIEF		
Year & Subject: S.3 Geography and Environment	Unit	2: Relief in Africa and the world	No. of periods: 5	

**Key Unit Competence:** To be able to analyse the impact of different relief features on climate and human activities in Africa and the world

Learning Objectives				
Knowledge and understanding	Skills	Attitudes and values	Content	Learning Activities
<ul> <li>Identify the area, location and population of Africa in relation to other continents.</li> <li>Name the major forms of relief in Africa in relation to other continents.</li> <li>Identify the relationship between different forms of reliefs and human activities in Africa.</li> </ul>	<ul> <li>Describe the size, position and population of Africa in relation to other continents.</li> <li>Conduct research to find out the different forms of relief in Africa and other continents.</li> <li>Describe the relationship between different forms of reliefs and human activities in Africa.</li> </ul>	<ul> <li>Appreciate the beauty of the physical landscape of the world.</li> <li>Show concern for the impact of human activities on relief features and climate in the world.</li> <li>Appreciate the importance of the various relief forms of the world.</li> </ul>	<ul> <li>Africa</li> <li>Introduction to Africa: location, area, and population in comparison to other continents of the world.</li> <li>Major relief forms of Africa: location and description.</li> <li>Major relief forms of other continents (Europe, America,</li> <li>Asia, Oceania).</li> <li>Impact of relief features on the environment.</li> </ul>	<ul> <li>Use geographical documents, a relief map of the continents and photographs to research the size, position and population of continents, major relief features and their influence on human activities. Record the findings.</li> <li>In groups, discuss and write down the findings and present these to the class.</li> <li>Use a map of the world and geographical documents to identify the major relief forms in the world. Write down the findings.</li> <li>Discuss the findings and make a presentation to the class.</li> <li>In groups, discuss the impact of relief features on climate and human activities. Write down the findings and deliver a presentation supported by Q&amp;A.</li> </ul>

Links to other subjects: Mathematics: angles and shapes.

Assessment criteria: Learners are able to correctly compare different relief features in Africa and the world and their impact on climate and human activities

Materials: Maps, internet, textbooks, atlases, photographs, charts, the local environment, and tactile and talking materials.

TOPIC AREA: PHYSICAL GEOGRAPHY		SUB-TOPIC AREA: ROCKS, WEATHERING AND SOILS		
Year & Subject: S.3 Geography and Environment Unit 3: Soils in Afr		rica and the world	No. of periods: 4	
Key Unit Competence: To investigate the n	najor types of soils in	n Africa and the world		
Learning Objectives				
Knowledge and Skills understanding	Attitudes and values	Content	Learning Activities	
<ul> <li>Outline and locate different soil types in Africa and the major soil types in Africa</li> <li>Identify the relationship that exists continents and those of other continents.</li> <li>Recall the factors favouring soil formation.</li> <li>Reut and the soil types in Africa</li> <li>Recall the factors favouring soil formation.</li> <li>Recall the factors favouring soil formation.</li> <li>Research the location of the major soil types in Africa</li> <li>Research on the various types of soils in other continents.</li> <li>Recall the factors favouring soil formation.</li> <li>Recall the factors favouring soil formation.</li> </ul>	<ul> <li>Appreciate the importance of major types of soils in Africa and other continents</li> <li>Show concern for the different soil types in Africa and develop a desire for soil conservation</li> </ul>	<ul> <li>Major types of soils in Africa.</li> <li>Factors for soil formation in Africa</li> <li>Major types of soils in other continents (Europe, North America, South America, Asia, Oceania)</li> </ul>	<ul> <li>Use a range of text books, maps, geographical documents, atlases and internet websites to locate and differentiate the major soil types in Africa and the rest of the world.</li> <li>In groups, discuss and write down the findings from the above research. Then present the findings to the class and allow a Q&amp;A session.</li> </ul>	
Links to other subjects: Biology: pedology.	loarly analyse the war	ious soil times in Africa ar	ad other continents	
Assessment criteriu: Learners are able to ci	ieur iy unuiyse the Var	ious soii types in Africa an	a vacandara coil complete the level	
environment, and tactile and talking displays	s. S.	ernet, textbooks, soil ma	ps, recorders, soil samples, the local	

TOPIC AREA: PHYSICAL GEOGRAPHY			SUB-TOPIC AREA: WEATHER AND CLIMATE		
Year & Subject: S.3 Geography and I	Environment	Unit 4: Climate in A	frica and the world	No. of periods: 5	
Key Unit Competence: To investigate the climate of Africa and the			e rest of the world and	its impact on human activities	
	Learning Objectives				
Knowledge and understanding	Skills	Attitudes and values	Content	Learning Activities	
<ul> <li>Name the different climatic types in Africa</li> <li>State the major types of climate in other continents</li> <li>Outline the relationship between climate and human activities</li> </ul>	<ul> <li>Classify the climatic regions of Africa</li> <li>Analyse the climatic regions of the world.</li> <li>Carryout research on the major world climatic zones</li> <li>Explain the relationship between climate and human activities</li> </ul>	<ul> <li>Appreciate the importance of the variations of climate in Africa and other continents.</li> <li>Show a continual desire to protect the environment in order to minimise the dangers of climate change</li> </ul>	<ul> <li>Climate of Africa: regions, types and characteristics</li> <li>Climate of other continents: zones, types, location and characteristics</li> <li>Relationship between climate and human activities.</li> </ul>	<ul> <li>Use a climate map of Africa to locate the major climatic regions. Observe critically the climatic map of Africa and list the types of climate in Africa.</li> <li>In groups discuss and write down the findings and present to the class.</li> <li>Use the internet, geographical documents, atlases, and text books to research the major climatic zones of the world, their characteristics and their influence on human activities.</li> <li>In groups, discuss and note down the findings. Present the findings to the class and allow a Q&amp;A session.</li> </ul>	
Links to other subje	ects: Agriculture: climat	te.			
Assessment criteria: Learners are able to accurately describe and explain the climate of Africa and other continents and its impact on human activities.					
Materials: Documen environment, and clin	ts, maps, internet, text natic graphs.	books, weather instrun	nents and records, tac	tile displays or talking materials, the local	
		00			

TOPIC AREA: PHYSICAL GEOGRAPHY		SUB-TOPIC AREA: VEGETATION		
Year & Subject: S.3 Geography and	Environment	Unit 5: Vegetation of world	f Africa and the	No. of periods: 4
Key Unit Competence: To be able to demonstrate an understand			ng of the different vege	etation types in Africa and the world
	Learning Objectives			
Knowledge and understanding	Skills	Attitudes and values	Content	Learning Activities
<ul> <li>Identify major vegetation types in Africa and their characteristics.</li> <li>State the different types of vegetation in other continents</li> <li>Identify the relationship between vegetation and human activities in Africa</li> </ul>	<ul> <li>Describe the distribution of major vegetation types in Africa</li> <li>Categorise the major types of vegetation in other continents</li> <li>Assess the relationship between vegetation and human activities in Africa</li> </ul>	<ul> <li>Appreciate the variations of vegetation distribution in the world</li> <li>Show concern for the impact of vegetation on human activities</li> <li>Show respect for the relationship between different types of vegetation and human activities</li> </ul>	<ul> <li>Vegetation distribution in Africa: location, reasons for their distribution and characteristics</li> <li>Major types of vegetation in other continents</li> <li>The relationship between the different types of vegetation and human activities</li> </ul>	<ul> <li>Research using a wide range of geographical sources, the internet, maps, photographs and the local environment to find out the different vegetation types in Africa and the rest of the world. Write down the findings.</li> <li>In groups, discuss the findings and make a presentation to the class.</li> <li>In groups, use geographical documents and the internet to research the characteristics of major types of vegetation and their relationship with human activities in Africa and the world. Record the findings.</li> <li>Use the findings from group discussions to make a presentation to the class followed by Q&amp;A.</li> </ul>
Links to other subj	ects: Biology: ecology.			
Assessment criteria	: Learners are able to c	learly differentiate the ve	egetation types in Afric	ca and other continents.
<b>Materials:</b> Geograph talking displays and t	hical documents, maps, the internet.	, photographs, illustrati	ons, audio visual film	s, maps, the local environment, tactile and

<b>TOPIC AREA: PHYS</b>	TOPIC AREA: PHYSICAL GEOGRAPHY		SUB-TOPIC AREA: DRAINAGE		
Year & Subject: S.3 Geography and	Environment	Unit 6: Drainage in A	Africa	No. of periods: 4	
Key Unit Competence: To be able to explain the importance of water bodies and wetlands in Africa					
	Learning Objectives	5			
Knowledge and understanding	Skills	Attitudes and values	Content	Learning Activities	
<ul> <li>Identify the major water bodies in Africa</li> <li>Name features related to rivers in Africa</li> <li>Recall the importance of water bodies in Africa</li> <li>State the challenges of obtaining sustainable and clean water in Africa.</li> </ul>	<ul> <li>Describe different water bodies found in Africa</li> <li>Examine the various physical features resulting from river erosion and deposition</li> <li>Evaluate the importance of water bodies in Africa.</li> <li>Examine the challenges faced in obtaining sustainable and clean water in Africa</li> </ul>	<ul> <li>Appreciate the importance of water resource management and conservation (e.g. rain water harvesting) in Africa</li> <li>Show concern for water scarcity in Sub Saharan Africa</li> <li>Show a continual desire to seek other perspectives related to the misuse of water in Africa</li> </ul>	<ul> <li>Major rivers and lakes in Africa</li> <li>Major lakes of Africa according to their mode of formation</li> <li>Features related to rivers in Africa: erosion and depositional features</li> <li>Importance of rivers, lakes, and wetlands in Africa</li> <li>Challenges to obtain sustainable clean water in Africa: water scarcity, pollution, and silting/sedimentation.</li> </ul>	<ul> <li>Use textbooks, the internet and geographical documents to research the major types of rivers, lakes and their related features in Africa.</li> <li>In groups, discuss and write down the findings and present to the class.</li> <li>Use the research from the previous lesson and textbooks to research the mode of formation of lakes, the importance of water bodies and the challenges to sustainable water.</li> <li>In groups, discuss and write down the findings and present to the class with a Q&amp;A session.</li> </ul>	
Links to other subj	ects: Chemistry: water	purification and filtration	1		
Assessment criteria	: Learners are able to e	xplain the importance of	water bodies and wetlands in	Africa	
<i>Materials:</i> Geograp software, textbooks/	hical documents, drai brailed textbooks, and a	nage photographs, the tlases/tactile or talking a	local environment, drainage atlases.	e maps/tactile maps, internet/jaws	

TOPIC AREA: PHYSICAL GEOGRAPHY			SUB-TOPIC AREA: MAN AND HIS ENVIRONMENT		
Year & Subject: S.3 Geography and Enviror	ıment	Unit 7: Environmenta	l conservation	No. of periods: 3	
Key Unit Competence: To b	e able to evaluate the met	onservation			
	Learning Objectives				
Knowledge and	Skills	Attitudes and values	Content	Learning Activities	
understanding					
<ul> <li>Recall the various components of the environment</li> <li>Identify the effects of environmental degradation</li> <li>State the reasons for conserving the environment</li> <li>Identify different measures for environmental conservation</li> <li>State the challenges faced in the implementation of conservation measures</li> </ul>	<ul> <li>Apply knowledge to explain various components of the environment</li> <li>Examine the effects of environmental degradation</li> <li>Explain the reasons for conserving the environment.</li> <li>Apply environmental conservation measures</li> <li>Analyse the challenges faced in the implementation of conservation measures</li> </ul>	<ul> <li>Appreciate the importance of various environmental resources</li> <li>Appreciate the importance of environmental conservation</li> <li>Show concern for environmental degradation and challenges faced in the implementation of conservation measures</li> </ul>	<ul> <li>Definition of environmental conservation</li> <li>Effects of environmental degradation</li> <li>Reasons for environmental conservation</li> <li>Conservation measures for environmental resources</li> <li>Challenges faced in the implementation of environmental conservation measures.</li> </ul>	<ul> <li>Use knowledge acquired from environmental clubs at school, research from the internet, and textbooks to explain environmental conservation, the reasons for conservation, the effects of environmental degradation and measures to conserve the environment.</li> <li>In groups, discuss and write down</li> </ul>	

				the findings and
				present these to
				the class. In
				groups, use
				knowledge from
				the previous
				research to debate
				the challenges
				faced in the
				implementation of
				environmental
				conservation
				measures. Deliver
				a presentation and
				engage in a Q&A
				session.
Links to other subjects: Entrepreneurship and Agriculture: land use management				
Assessment criteria: Learners are able to properly evaluate the methods for environmental conservation				
Materials: Wall maps/tac	tile maps, atlases/tactile	or talking atlases,	photographs, textbooks/l	brailed textbooks, local
environment, documentaries	and newspapers.			

TOPIC AREA: HUMAN & ECONOMIC GEOGRAPHY SU			UB-TOPIC AREA: POPULATION AND SETTLEMENT	
Year & Subject: S.3 Geography and Environment		Unit 8: Population in Africa		No. of periods: 5
Key Unit Compete	ence: To be able to ana	lyse population proble	ems and solutions in Africa	and the rest of the world
	Learning Objective	25		
Knowledge and understanding	Skills	Attitudes and value	s Content	Learning Activities
<ul> <li>Identify the population distribution of Africa and the rest of the world</li> <li>Identify factors influencing the density and distribution of population</li> <li>Identify the population structure of Africa and the rest of the world.</li> </ul>	<ul> <li>Describe the population distribution of Africa and the rest of the world.</li> <li>Analyse the population structure in Africa and the rest of the world using population figures.</li> <li>Analyse the causes and consequences of over population in Africa</li> </ul>	<ul> <li>Show concern for uneven distribution of population in the world and categorise the possible factors influencing population distribution</li> <li>Show concern for the effects of rapid population growth in Africa and advocate for control measures</li> </ul>	<ul> <li>Population distribution and density (Africa and rest of the world)</li> <li>Factors influencing population distribution.</li> <li>Population structure: composition, age, and sex</li> <li>Population growth/explosio n: birth rate, fertility rate, death rate, growth rate, and its offects in</li> </ul>	<ul> <li>Use maps, the internet, textbooks, and photographs to locate the densely and sparsely populated areas in Africa and the rest of the world. Write down the findings.</li> <li>In groups, discuss the findings and present to the class with an interactive Q&amp;A session.</li> <li>In groups, discuss the population concepts and the factors that influence population distribution and present these to the class.</li> <li>In groups, use various age and sex pyramids or knowledge from the previous lesson to explain the population</li> </ul>

- State reasons	- Evaluate the		Africa	compare it with other		
for ranid	nossible		- Possible ways to	countries in the world		
nonulation	solutions to the		control rapid	Present the findings to the		
growth and	nrohlems		nonulation	class Use the findings to draw		
its offocts in	related to over		growth in Africa	relevant conclusions		
Africa	nonulation in		Migrations in	In groups, use a local		
All ICd.			- Migrations III	- III groups, use a local		
- State possible	Airica		Africa: types of	environment, geographical		
ways to	- Analyse the		migration, causes	documents and the internet to		
control rapid	causes and		and effects of	research population problems		
population	effects of the		migration.	and possible solutions in		
growth in	different types		- Population	Africa. Present the findings in		
Africa	of migration in		problems:	class.		
<ul> <li>Identify the</li> </ul>	Africa.		HIV/AIDS,	<ul> <li>Use textbooks, the internet</li> </ul>		
types, causes	<ul> <li>Analyse the</li> </ul>		poverty,	and the local environment to		
and effects of	major		overpopulation,	research migration (causes		
migration in	population		famine, illiteracy,	and effects) and population		
Africa	problems in		rural-urban	problems in Africa.		
- State the	Africa and		migration,	- In groups, discuss and write		
major	propose		unemployment,	down the findings and present		
problems of	solutions		and possible	to the class. Allow the Q&A		
population in			solutions.	session.		
Africa						
Links to other su	Links to other subjects: Mathematics: statistics. Economics: population					
Assessment criteria: Learners are able to fully analyse the population problems and solutions in Africa and the rest of the world						
Materials: Photoc	raphs, population map	os, graphs, audiovisual	video clips, newspapers, a	textbooks, the internet, recorders, the		
local environment,	and talking and tactile	displays.				

TOPIC AREA: HUMAN & ECONOMIC GEOGRAPHY			SUB-TOPIC AREA:	POPULAT SETTLEM	FION AND IENT
Year & Subject: S.3 Geography and Er	nvironment	Unit 9: Urban settlemen	t in Africa.		No. of periods: 4
Key Unit Competence	: To be able to assess th	ne impact of urban settleme	ent on development in	Africa	
	Learning Objectives	5			
Knowledge and understanding	Skills	Attitudes and values	Content	Lea	rning Activities
<ul> <li>State the characteristics of urban centres in Africa</li> <li>Outline the functions of urban centres</li> <li>State the factors influencing the growth of urban centres in Africa</li> <li>List the problems and solutions of urban centres in Africa</li> </ul>	<ul> <li>Analyse the characteristics of urban centres in Africa</li> <li>Analyse the functions of urban centres in Africa.</li> <li>Explain the factors influencing the growth of urban centres in Africa.</li> <li>Apply knowledge to suggest how to control the problems of urbanisation in Africa</li> </ul>	<ul> <li>Appreciate the importance of urbanisation in Africa</li> <li>Show concern for the growth of urban centres in Africa</li> <li>Show a continual desire to control the rapid growth of urban centres and its effects in Africa.</li> </ul>	<ul> <li>Urban settlement <ul> <li>Africa.</li> <li>Characteristics <ul> <li>of urban</li> <li>centres in</li> <li>Africa</li> </ul> </li> <li>Functions and <ul> <li>importance of</li> <li>urban centres</li> </ul> </li> <li>Factors <ul> <li>responsible for</li> <li>rapid urban</li> <li>growth</li> </ul> </li> <li>Problems and <ul> <li>solutions for</li> <li>urban centres</li> <li>in Africa</li> </ul> </li> <li>Case studies: <ul> <li>Nairobi,</li> </ul> </li> </ul></li></ul>	<ul> <li>Use r the in phot</li> <li>the n</li> <li>in Af</li> <li>the v</li> <li>In gr</li> <li>facto</li> <li>urba</li> <li>Afric</li> <li>to th</li> <li>Use r</li> <li>abov</li> <li>discute</li> <li>the p</li> <li>with</li> <li>Afric</li> <li>poss</li> <li>Writ</li> </ul>	maps, textbooks, nternet and ographs to locate najor urban centres rica and the rest of vorld. oups, discuss the ors that influence n settlement in ra and present these e class. knowledge from the re research to uss and note down oroblems associated urbanisation in ra and suggest ible solutions. e down the findings

			Kampaia, Cairo, and Johannesburg.	<ul> <li>discuss in class and make presentations.</li> <li>Use documents, maps, the internet and photographs to research urban centres in Africa in reference to the knowledge acquired in the current unit. Record the findings.</li> <li>In groups discuss the findings and write a</li> </ul>
Links to other subjects	<b>s</b> • Mathematics• statist	ics		report
Assessment criteria: L	Learners are able to fi	illy analyse the impact of	urban settlement on c	levelopment in Africa and other
continents.	,			, see the second s
Materials: Photographs local environment, and t	s, population maps, gr tactile and talking displ	aphs, audiovisual video cl lays.	ips, newspapers, textbo	ooks, the internet, recorders, the

TOPIC AREA: HUMAN AND ECONOMIC GEOGRAPHY			SUB-TOPIC AREA: ECONOMIC ACTIVITIES AN	ND DEVELOPMENT STUDIES	
Year & Subject: S.3 Geography and Environment		Unit 10: Agricultu	ral systems in Africa	No. of periods: 12	
Key Unit Competer	<b>Key Unit Competence:</b> To be able to analyse the impact of various agricultural activities on sustainable development in Africa				
	Learning Objectives				
Knowledge and understanding	Skills	Attitudes and values	Content	Learning Activities	
<ul> <li>State the different types of agriculture in Africa</li> <li>Identify the different methods of subsistence farming in Africa</li> <li>Identify the modern methods of agriculture in Africa</li> </ul>	<ul> <li>Apply knowledge to differentiate between the types of agriculture in Africa</li> <li>Analyse the different methods of subsistence farming in Africa</li> <li>Carry out research on modern methods of agriculture in Africa</li> </ul>	<ul> <li>Appreciate the importance of agricultural modernisation to the development of Africa.</li> <li>Show respect for the solutions to the problems affecting agriculture in Africa.</li> </ul>	<ul> <li>Types of agricultural systems in Africa</li> <li>Subsistence farming in Africa: shifting cultivation, smallholder farming, and rotational bush fallowing (characteristics, problems and solutions).</li> <li>Modern agriculture: plantation agriculture, green revolution, irrigation farming (characteristics, advantages and disadvantages).</li> </ul>	<ul> <li>Use textbooks, the internet, documents, diagrams and photographs to research agricultural systems (plantation farming, and livestock farming) and their impact on development.</li> <li>Write down the findings for discussion and class presentation.</li> <li>In groups, discuss the characteristics and advantages of various agricultural systems. Write down the findings and present to the class. Allow Q&amp;A to be part of the presentation.</li> <li>Using the knowledge acquired from the research, discuss and</li> </ul>	

<ul> <li>Differentiate amongst the different types of livestock farming in Africa</li> <li>Identify the impact of agricultural activities in Africa</li> </ul>	<ul> <li>Apply knowledge to differentiate between the types of livestock farming in Africa</li> <li>Evaluate the impact of agricultural activities in Africa</li> </ul>		<ul> <li>Livestock farming in Africa: nomadic pastoralism, ranching and dairy farming (characteristics, problems and solutions).</li> <li>The impact of various agriculture activities on Africa's development.</li> <li>Case studies: cotton growing in the lower Nile valley, cocoa and</li> </ul>	<ul> <li>propose possible solutions to the problems facing different agricultural systems in Africa. Present the findings to the class.</li> <li>In groups discuss the impact of various agricultural activities on sustainable development in Africa and write a report.</li> <li>Use geographical documents, maps, the internet and photographs to research plantation agriculture, dairy</li> </ul>
agricultural activities in Africa Links to other subj	agricultural activities in Africa ects: Economics: produc	tion. Mathematics: sta	<ul> <li>Case studies: cotton growing in the lower Nile valley, cocoa and rubber growing in West Africa, dairy farming in Kenya, and livestock ranching in Botswana.</li> </ul>	<ul> <li>Use geographical documents, maps, the internet and photographs to research plantation agriculture, dairy and ranching livestock farming in selected countries in reference to the knowledge acquired in the unit. Write down the findings.</li> <li>In groups discuss the findings and write a report on the findings.</li> <li>uction and animal husbandry.</li> </ul>
<b>Assessment criteria:</b> Learners are able to identify the location of various agricultural systems in Africa and correctly analyse their impact on sustainable development in Africa.				
<i>Materials:</i> Geograph tactile and talking m	hical documents, journal. aterials.	s, maps, photographs,	internet, video clips, reports, n	newspapers, the local environment, and

TOPIC AREA: HUMAN AND ECONOMIC GEOGRAPHY		SUB-TOPIC AREA: ECONOMIC ACTIVITIES AND	DEVELOPMENT STUDIES	
Year & Subject: S.3 Geography and E	Invironment	Unit 11: Forestry	in Africa	No. of periods: 4
Key Unit Competenc	<b>e:</b> To be able to analys	e the impact of forest	ry and forest exploitation in Afr	ica
	Learning Objectives			
Knowledge and understanding	Skills	Attitudes and values	Content	Learning Activities
<ul> <li>Name the major forest types and forest areas in Africa</li> <li>State the factors favouring forest growth and exploitation in Africa</li> <li>Identify the effects of forest exploitation in Africa</li> <li>Identify the causes and effects of desertification in Africa (south of the Sahara).</li> </ul>	<ul> <li>Apply knowledge of forest management to suggest measures to prevent desertification</li> <li>Analyse the characteristics of major forests in Africa.</li> <li>Examine the solutions to problems affecting forest exploitation in Africa</li> <li>Explain the causes and effects of</li> </ul>	<ul> <li>Appreciate the importance of forests and forest conservation in Africa.</li> <li>Show respect for forests and forest conservation measures in Africa</li> <li>Show concern for areas that are under risk of forest over exploitation and desertification.</li> </ul>	<ul> <li>The major types of forests and their characteristics. Forest areas: Gabon, DRC, Congo, Cameroon, Nigeria and Ivory Coast.</li> <li>Factors favouring forest growth in Africa (physical and socio-economic factors</li> <li>Forest exploitation in Africa methods, factors favouring, and problems and solutions</li> <li>Desertification in Africa: areas affected, causes, effects and control measures.</li> <li>Impact of forestry and forests on sustainable development in Africa</li> </ul>	<ul> <li>Use textbooks, the internet and geographical documents to research the types of forests and forest conservation in Africa.</li> <li>In groups, discuss and write down the findings</li> <li>from the research and present these to the class. Supportively involve Q&amp;A</li> <li>in the presentation.</li> <li>Use textbooks, the internet and geographical documents to understand the factors affecting forest exploitation, its problems, and the impact of forestry on development. Record the findings.</li> <li>In groups, discuss the</li> </ul>

	desertification in Africa and solutions			findings from the above research and make a presentation to the class with a Q&A session.
Links to other subjects: Economics: agriculture. Biology: ecology				
Assessment criteria: Learners are able to correctly analyse the causes, effects and solution of deforestation in Africa				
Materials: Geograph examples.	ical documents, maps,	photographs, interne	et, and video clips, GPS, tactile a	nd talking materials, and local

## **TOPIC AREA: HUMAN AND ECONOMIC GEOGRAPHY**

### SUB-TOPIC AREA: ECONOMIC ACTIVITIES AND DEVELOPMENT STUDIES

Year & Subject:

S.3 Geography and Environment

Unit 12: Fishing in Africa

No. of periods: 4

Key Unit Competence: To be able to explain the impact of fishing on sustainable development in Africa

Learning Objectives				
Knowledge and	Skills	Attitudes and values	Content	Learning Activities
understanding				
- State the major	- Draw a map of	- Appreciate the	- The major fishing	- Use atlases, maps, the internet
fishing grounds	Africa to show	importance of	grounds in Africa:	and geographical documents
in Africa.	fishing grounds	the fishing	Morocco, South	to research major fishing
- Identify the	- Classify fish	industry in Africa	Africa, Angola, and	grounds, the types of fish,
major fish	species caught in	- Show respect	Nigeria	factors favouring fishing, the
species caught in	Africa	and a preference	- Types of fish and	importance of fishing, and
Africa	- Analyse the	for fish as	major fishing	problems and conservation
- Explain the	factors	valuable food	methods	measures.
factors favouring	responsible for	and how to	(traditional and	- In groups discuss and write
the growth and	the growth and	increase its	modern methods)	down the findings and present
development of	development of	consumption in	in Africa	to the class. Interactively
fishing in Africa	the fishing	Africa	- Factors favouring	involve the class in a Q&A
- Identify the	industry in Africa	- Show concern for	the development of	session.
importance of	- Identify the	the problems in	fishing in Africa	- In groups, use the information
fishing in Africa	importance of	the development	- Importance of	from the above research to
- Outline the	fishing in Africa	of the fishing	fishing in Africa	discuss the importance of

problems	- Examine the	industry in Africa	- Problems with	fishing, problems and	
affecting fishing	problems		fishing in Africa and	solutions for fishing in Africa	
in Africa	affecting fishing		possible solutions	and draw relevant conclusions.	
	in Africa and			Make a class presentation and	
	suggest			engage in a Q&A session.	
	solutions.				
Links to other subjects: Biology: classification of animals and aquatic life.					
Assessment criteria: Learners are able to explain the impact of fishing on sustainable development in Africa.					
Materials: Maps/tactile maps, instructional charts, photographs, slide shows, video clips, textbooks/brailed textbooks,					
surrounding fishpone	surrounding fishponds, the internet, access to computers/ Jaws software, and the local environment.				

TOPIC AREA: HUMAN AND ECONOMIC GEOGRAPHY			SUB-TOPIC AREA: ECO DEV	NOMIC ACTIVITIES AND ELOPMENT STUDIES
Year & Subject: S.3 Geography and	Environment	Unit 13: Mining in A	Africa	No. of periods: 4
Key Unit Competen	<b>ce:</b> To be able to expla	in the impact of mining	on sustainable developme	nt in Africa
	Learning Objectives			
Knowledge and	Skills	Attitudes and values	Content	Learning Activities
understanding				
<ul> <li>List the major types of minerals and mining areas of Africa</li> <li>Outline different methods of mining in Africa</li> <li>State the factors favouring the exploitation of minerals in Africa</li> <li>Identify the problems affecting mining in Africa</li> <li>Show the impact of mining on sustainable development of Africa</li> </ul>	<ul> <li>Locate the major minerals and mining areas of Africa.</li> <li>Describe the different methods of mining in Africa</li> <li>Analyse the factors favouring the exploitation of minerals in Africa</li> <li>Analyse the problems affecting mining in Africa and possible solutions</li> <li>Evaluate the</li> </ul>	<ul> <li>Appreciate the importance of various types of minerals found in Africa.</li> <li>Show continual desire to protect areas under over exploitation of minerals.</li> <li>Show concern for the effects of mining in Africa and suggest solutions.</li> <li>Appreciate the importance of mining on sustainable development of</li> </ul>	<ul> <li>Various types of minerals in Africa (copper, gold, coal, diamond, petroleum).</li> <li>Major mining areas in Africa (South Africa, Copper belt in DRC and Zambia, Nigeria, Angola, Libya)</li> <li>Methods of mining in Africa.</li> <li>Factors favouring the exploitation of minerals in Africa</li> <li>Problems affecting mining and ways to enhance sustainable mining in Africa</li> <li>Impact of mining on sustainable</li> </ul>	<ul> <li>Using a map of Africa, locate major minerals, mining areas and write down the findings in your notebooks.</li> <li>Use internet and textbooks to research about the methods of mining, factors favouring mining, importance and problems of mining to development.</li> <li>In groups, discuss and write down the above findings for class presentation.</li> <li>In groups, use textbooks, internet and field study to research on the impact of mining to sustainable development.</li> <li>Discuss the findings and make a class presentation</li> </ul>

	impact of mining on sustainable development in	Africa.	development of Africa	and use Q&A methodology.			
	Africa						
Links to other subjects: Physics: measurement. Mathematics and Economics: statistics							
Assessment criteria: Learners are able to correctly locate various minerals in Africa, explain the factors influencing mineral							
resource exploitation, and identify the problems and solutions of mining in Africa.							
Materials: Geographical documents, maps, photographs, the internet, video clips, textbooks, mineral and rock samples, the loca							
environment, and tactile and talking materials.							

TOPIC AREA: HUMAN AND ECONOMIC GEOGRAPHY			SUB-TOPIC AREA: ECONOMIC ACTIVITIES AND DEVELOPMENT STUDIES			
Year & Subject: S.3 Geography and Environment		Unit 14: Power and energy in Africa		No. of periods: 4		
Key Unit Competence: To be able to analyse the impact of power and energy production on sustainable development in Africa						
Learning Objectives						
Knowledge and understanding	Skills	Attitudes and values	Content	Learning Activities		
<ul> <li>Recall the major sources of energy and power (potentials and available) in Africa</li> <li>State the factors favouring power and energy production in Africa.</li> <li>Show the importance of power and energy in Africa</li> <li>Identify the problems hindering the effective production of power and energy in Africa.</li> </ul>	<ul> <li>Differentiate the types and sources of power and energy in Africa</li> <li>Analyse the factors favouring power and energy production in Africa</li> <li>Evaluate the importance of power and energy in Africa</li> <li>Analyse the problems hindering the effective production of power and</li> </ul>	<ul> <li>Appreciate the importance of power and energy for the development of Africa</li> <li>Respond to the problems affecting energy and power production in Africa</li> <li>Show respect for appropriate and efficient use of power and energy in Africa</li> </ul>	<ul> <li>Types and sources of power and energy in Africa</li> <li>Factors favouring power and energy production in Africa</li> <li>Importance of power and energy in Africa</li> <li>Problems and solutions of power and energy production in Africa</li> <li>Case studies: Hydro - electric power stations/projects in Africa, Aswan (Nile) in Egypt, and Okosombo (Volta) in Ghana.</li> </ul>	<ul> <li>Use text books, documents on power and energy, photographs and diagrams to research the types of power and energy, factors favouring power and energy production, importance of power, problems and prospects of power.</li> <li>Hold group discussions on the findings from the above research. Write down the summary. Present to the class and actively engage the class in Q&amp;A.</li> <li>Using the knowledge acquired from the above research, discuss in groups the factors affecting power and</li> </ul>		
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energy in .	Africa		energy production in			
and possib	ble		Africa. Present the			
solutions			findings to the class.			
			- In groups discuss the			
			importance of major river			
			dem projects and units			
			dam projects and write			
			extended essays and			
			present to the class.			
			- With reference to the			
			above research, discuss in			
			groups the solutions to			
			problems of power and			
			anargy in Africa Droduco			
			energy in Annual Produce			
			a written report.			
			- Use documents, the			
			internet, field studies and			
			photographs to research			
			power and energy in			
			Africa in reference to the			
			knowledge acquired in			
			the current unit Write a			
			report.			
			<ul> <li>In groups, discuss the</li> </ul>			
			findings and make a			
			report on the findings.			
Links to other subjects: Physics: pow	er, energy and mechanics					
Assessment criteria: Learners are abl	e to correctly analyse the impact	of power and energy production	n on sustainable development in			
Africa			r on outer and r			
Materials: Coographical documents m	and atlasos tactile and talking r	actorials alobos journals nhoto	araphs internet laws software			
field at the recommendant of the local environments, in	iups, utiuses, tuctile unu tulking r	iateriais, giobes, journais, prioto	grupns, internet/juws sojtwure,			
neia study resources and the local envir	ronment.					

# SUB-TOPIC AREA: ECONOMIC ACTIVITIES AND DEVELOPMENT STUDIES

Year & Subject:	
S.3 Geography and	Environment

Unit 15: Industrial development in Africa

No. of periods: 4

Key Unit Competence: To be able to analyse the impact of industrialisation on sustainable development in Africa

Learning Objectives				
Knowledge and understanding	Skills	Attitudes and values	Content	Learning Activities
<ul> <li>State the types of industries in Africa</li> <li>Identify the major industrial areas in Africa</li> <li>Identify the factors influencing industrialisation in Africa.</li> <li>Explain the importance of industries to the economy of Africa.</li> <li>Identify the problems affecting industrial growth in Africa and the future prospects for industrial</li> </ul>	<ul> <li>Classify the major types of industries in Africa</li> <li>Locate the major industrial areas of Africa.</li> <li>Analyse the factors influencing industrialisation in Africa.</li> <li>Analyse the effects of industrialisation on the economy of Africa</li> <li>Carry out research on the problems and prospects for industrial development in Africa.</li> </ul>	<ul> <li>Appreciate the distribution of industries that show a concern for environmental protection</li> <li>Appreciate the importance of industries to the sustainable development of Rwanda</li> </ul>	<ul> <li>Types of industries in Africa</li> <li>The major industrial areas of Africa: South Africa, the Nile valley, etc.</li> <li>Factors favouring industrialisation in Africa</li> <li>Importance of industrialisation to the economies of Africa.</li> <li>Problems affecting industries in Africa.</li> <li>Prospects for the sustainable development of industries in Africa</li> </ul>	<ul> <li>Use text books, the internet, diagrams and photographs to research types of industries, factors favouring industrialisation, importance of industries, and problems and prospects of industries.</li> <li>In groups discuss the findings from the research above and present these to the class.</li> <li>In groups, discuss on the problems of industrial growth in Africa and present these to the class.</li> </ul>
industrial	AIrica		industries in Africa	possible solutions. Make

development				relevant conclusions and present these to the class followed by a Q&A
				session.
Links to other subject	ts: Economics: production.			
Assessment criteria: L	earners are able to explain	n the impact of indust	rialisation on sustainable de	evelopment in Africa.
Materials: Maps/tacti	ile maps, instructional c	charts, photographs,	slide shows, video clips,	textbooks/brailed textbooks,
surrounding industrial	projects (using the lo	cal industries in th	e country), power point	presentations, and access to
computers/Jaws softwa	re.			

TOPIC AREA: HUMAN AND ECONOMIC GEOGRAPHYSUB-TOPIC A DEVELOPMI			AREA: ECONOMIC A ENT STUDIES	CTIVITIES AND	
Year & Subject: S.3 Geography and Environment	Unit 16: Tra	ansport, com	municatio	on and trade in Afric	a No. of periods: 4
<b>Key Unit Competence:</b> To be able to Africa	analyse the im	npact of transp	ort, comm	nunication and trade	on sustainable development in
Learning	Objectives				
Knowledge and Sl understanding	<b>cills</b>	ls Attitudes and values		Content	Learning Activities
<ul> <li>Identify the types of transport in Africa</li> <li>Identify the factors influencing the development of transport in Africa</li> <li>Show the influence of various types of transport.</li> <li>State the problems affecting transport</li> <li>Identify types of communication</li> <li>State the factors problem influencing the influence of communication</li> </ul>	e different - cransport - blish the - cable for	<ul> <li>Appreciate trelationship between the development transport ar development other econo activities</li> <li>Appreciate transport in development country.</li> <li>Appreciate transport in development country.</li> </ul>	the the the the the the the the the the	<ul> <li>Transport</li> <li>Major means of transport in Africa</li> <li>Factors influencing the development of transport in Africa</li> <li>Evaluate the importance of various types of transport in Africa</li> <li>The problems of transport in</li> </ul>	<ul> <li>Use geographical documents and the internet to research different types of transport, the location of different transport routes (road, rails, water ways and airways), factors influencing the development of transport, and their importance and problems.</li> <li>Write down the findings.</li> <li>In groups, discuss the findings and present to</li> </ul>

<ul> <li>development of communications in Africa</li> <li>State the importance of the various types of communications in Africa</li> <li>State the problems affecting communication in Africa</li> <li>Identify the types of trade in Africa</li> <li>Identify the importance of trade in Africa.</li> <li>Explain the problems hindering trade in Africa.</li> <li>Identify the regional integrations in Africa, and internal and international trade</li> </ul>	<ul> <li>and propose solutions.</li> <li>Describe different types of communication systems in Africa.</li> <li>Analyse the factors influencing the development of communication in Africa.</li> <li>Evaluate the importance of various types of communication.</li> <li>Analyse the problems affecting communication in Africa and propose solutions.</li> <li>Differentiate between the types of trade.</li> <li>Examine the importance of trade in Africa</li> <li>Analyse the problems hindering</li> </ul>	<ul> <li>communications and other economic activities.</li> <li>Appreciate the importance of communications in the development of the country</li> <li>Show concern for the problems affecting communications in Africa.</li> <li>Show respect for the role of trade in the development of other economic activities in Africa.</li> <li>Show concern for the problems associated with economic integration in Africa.</li> </ul>	Africa and possible solutions <b>Communication</b> - Major means of communication in Africa - Factors influencing the development of communications in Africa - Importance of communications in Africa - Problems affecting communications in Africa and possible solutions <b>Trade in Africa</b> - Types of Trade. - Importance of trade in Africa - Problems hindering trade in Africa and	<ul> <li>the class.</li> <li>Use geographical documents and the internet to research the various forms of communication, the factors influencing the development of communication, and its impact on sustainable development.</li> <li>Record the findings.</li> <li>In groups, discuss the findings and present these to the class.</li> <li>Use textbooks, the internet and other geographical documents to research types of trade, their importance, their problems and solutions, and the prospects for trade in Africa.</li> <li>In groups, discuss and write down the findings from the above research and present to the class</li> </ul>
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	trade in Africa and propose solutions. - Evaluate the regional integrations in Africa, and internal and international trade		<ul> <li>possible solutions</li> <li>Regional and international trade partners with Africa</li> <li>Internal and international trade: imports, exports, partnerships, and regional integration (EAC, ECOWAS, COMESA, CEEAC)</li> </ul>	<ul> <li>with an active Q&amp;A session.</li> <li>In groups discuss the partnership and regional integrations in Africa and present the findings in class.</li> <li>Use geographical documents and the internet to research regional and international trade in Africa and write down the findings.</li> <li>In groups, discuss the findings and make a report on the findings.</li> </ul>
Links to other subjects:	Economics and Entreprene	eurship: trade.		

**Assessment criteria:** Learners are able to correctly analyse the impact of transport, communication and trade on sustainable development in Africa.

*Materials:* Maps/tactile maps, photographs, slide shows, video clips, textbooks/brailed textbooks, power point presentations, and access to computers/Jaws software.

TOPIC AREA: HUMAN AND ECONOMIC GEOGRAPHY		SUB-TOPIC AREA: ECONOMIC ACTIVITIES AND DEVELOPMENT STUDIES		
Year & Subject: S.3 Geography and	Environment	Unit 17: Tourism in	Africa	No. of periods: 4
Key Unit Competen	ice: To be able to ana	lyse the impact of touris	sm on sustainable developme	ent in Africa
	Learning Objective	S		
Knowledge and understanding	Skills	Attitudes and values	Content	Learning Activities
<ul> <li>Name the different tourist attractions in Africa</li> <li>Outline the factors favouring tourism in Africa</li> <li>Identify the contributions of tourism to the economy of African states</li> <li>State the problems affecting tourism in Africa.</li> </ul>	<ul> <li>Locate different tourist attraction areas in Africa</li> <li>Explain the factors favouring tourism in Africa</li> <li>Evaluate the importance of tourism in Africa</li> <li>Analyse the problems and prospects for tourism in Africa</li> </ul>	<ul> <li>Appreciate the natural and artificial beauty of Africa and show respect for environmental conservation</li> <li>Appreciate the development of tourism in Africa</li> <li>Appreciate the contribution of tourism to the economic development of Africa</li> </ul>	<ul> <li>The major tourist areas in Africa: natural environment, national parks, historical sites, socio-cultural activities, etc.</li> <li>Factors favouring the development of tourism in Africa</li> <li>Contribution of tourism to the development of Africa,</li> <li>Problems affecting tourism in Africa and future prospects for sustainable development</li> </ul>	<ul> <li>Use the internet and textbooks to research tourism, factors for the development of tourism and the contribution of tourism to development in Africa.</li> <li>Write down the findings.</li> <li>In groups, discuss the findings and present these to the class.</li> <li>Use the internet and geographical documents to research the problems and prospects for tourism in Africa and write down the findings.</li> <li>In groups, discuss the findings.</li> <li>In groups, discuss the findings and present to the class.</li> </ul>
Links to other subj	ects: Economics and I	Entrepreneurship: trade.		
Assessment criteria	Learners are able to	explain the impact of to	urism on sustainable develop	ment in Africa.
<i>Materials:</i> Geograph materials.	hical documents, vide	eo clips, slides shows, cl	harts, maps, atlases, photogi	raphs, the internet, tactile and talking

TOPIC AREA: HUMAN AND ECONOMIC GEOGRAPHY		SUB-TOPIC AREA: ECONOMIC ACTIVITIES AND DEVELOPMENT STUDIES		
Year & Subject S.3 Geography and Env	vironment	Unit 18: Developmer 18.1. Agricultur 18.1.1. Agricultu Netherla	No. of periods: 3	
<b>Key Unit Competence</b> Rwanda	: To be able to com	pare the agricultural de	evelopment levels on the Polder	Lands in the Netherlands to
L	earning Objectives			
Knowledge and understanding	Skills	Attitudes and values	Content	Learning Activities
<ul> <li>Identify the - location, size and population of the Netherlands.</li> <li>State the general agricultural practices on the Polder Lands.</li> <li>Discuss the factors favouring the development of agriculture on</li> </ul>	Explain the location, size and population of Netherlands. Describe the agricultural practices on the Polder Lands in the Netherlands Evaluate the factors favouring farming on the	<ul> <li>Appreciate the efforts taken by the Government to improve and develop the agricultural practices in Rwanda</li> <li>Appreciate the level of agricultural development in</li> </ul>	<ul> <li>Netherlands: Agriculture on the Polder-Lands</li> <li>Introduction to the Netherlands</li> <li>Agriculture on the Polder Lands in the Netherlands: Dairy farming and Horticulture</li> <li>Factors influencing Agriculture on the Polder Lands in the Netherlands.</li> <li>Importance of agriculture</li> </ul>	<ul> <li>Use textbooks, the internet and photographs of the Polder Lands to identify the agricultural activities on the Polder Lands and how the Polder Lands were created.</li> <li>Record the findings for a class discussion and present the finding to the class.</li> </ul>
<ul> <li>the Polder Lands.</li> <li>Identify the - importance of agriculture in the Netherlands.</li> <li>State the</li> </ul>	Polder Lands. Analyse the general importance of agriculture in the Netherlands.	<ul> <li>the Netherlands</li> <li>Appreciate the importance of agriculture in general</li> <li>Show respect for</li> </ul>	<ul> <li>in the Netherlands</li> <li>Unique problems hindering the agricultural expansion on the Polder Lands and possible solutions</li> <li>Livestock farming in the</li> </ul>	<ul> <li>Use textbooks, the internet and photographs to research the factors favouring farming on the Polder Lands, and the</li> </ul>

problems	- Asses the	livestock farming	Netherlands	importance of and
hindering	problems or	(dairy farming) in		problems hindering
agricultural	challenges faced	the Netherlands.		agriculture on the Polder
expansion on the	by the			Lands.
Polder Lands	agricultural			- Record the findings.
	practices on the			- In groups, discuss the
	Polder Lands and			findings and present to
	suggest possible			the class followed by a Q
	solutions.			& A.
				•

Links to other subjects: Agriculture: crop production and animal husbandry.

**Assessment criteria:** Students are able to correctly evaluate the role of Polder Lands to the economic transformation of the Netherlands.

**Materials:** Geographical documents, illustrations, diagrams, maps, photographs, slide shows, video clips, talking and tactile materials, school gardens and the surrounding agricultural projects, and the local environment.

TOPIC AREA: HUMAN AND ECONOMIC GEOGRAPHY		SUB-TOPIC AREA: ECONOMIC ACTIVITIES AND DEVELOPMENT STUDIES	
Year & Subject:Unit 18: DevelopmentS.3. Geography and Environment18.1. Agriculture 18.1.2. Plantation		t case studies n agriculture in Brazil	No. of periods: 4
to analys	se plantation agricultur	e development in Brazil	
ojectives	:		
	Attitudes and values	Content	Learning Activities
ze ation ne al zones nd the os ne ouring e in	<ul> <li>Appreciate the importance of plantation agriculture</li> <li>Show a continual desire to improve the agricultural practices of Rwanda based on the experience of different parts of the world.</li> <li>Appreciate the level of agricultural development in</li> </ul>	<ul> <li>Plantation Agriculture in Brazil</li> <li>Introduction to Brazil Plantation agriculture zones in Brazil: characteristics and types of crops grown (coffee, tea, sugar cane, etc.)</li> <li>Factors favouring plantation agriculture in Brazil</li> <li>Importance of plantation agriculture in Brazil</li> <li>Problems and</li> </ul>	<ul> <li>Use textbooks, the internet, and personal experience to research plantation agriculture in Brazil, the conditions necessary for plantation agriculture, characteristics of plantation farming, and factors, importance and problems affecting plantation agriculture in Brazil.</li> <li>In groups, discuss and write down a summary of the findings and present these to the class</li> </ul>
ne oi e	y uring in e of	<ul> <li>different parts of</li> <li>uring the world.</li> <li>Appreciate the</li> <li>level of</li> <li>agricultural</li> <li>development in</li> <li>of Brazil in</li> </ul>	and the unit of a plantation agricultureand the unit of a plantation agricultureuringthe world Appreciate the- Importance ofinlevel ofagriculturalin Braziledevelopment inofBrazil in

Brazil	plantation	comparison to that	with plantation	knowledge acquired from
- Identify the	agriculture in	of Rwanda	agriculture	the above research to
problems	Brazil			discuss the prospects of
associated with	- Explain the			plantation agriculture and
plantation	problems faced			present this to the class.
agriculture in	by the			Use Q&A methodology.
Brazil	agricultural			
	sector in Brazil			
	and possible			
	solutions			
Links to other subj	ects: Agriculture: crop	cultivation.		
Assessment criteria: Learners are able to correctly examine the agricultural practices such as plantation agriculture.				
Materials: Instructional charts, photographs, slide shows, video clips, textbooks, school gardens, demonstration farms, and				
tactile and talking m	aterials.			

# SUB-TOPIC AREA: ECONOMIC ACTIVITIES AND DEVELOPMENT STUDIES

Year & Subject: 5.3. Geography and Environment	Unit 18: Development case studies 18.1. Agriculture 18.1.3. Agriculture in the USA	No. of periods: 4
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Key Unit Competence: To be able to analyse the levels of agricultural development in the USA

Learning Objectives				
Knowledge and	Skills	Attitudes and values	Content	Learning Activities
understanding				
- Identify the	- Explain the	- Appreciate the	- Introduction to the	- Use the internet and text books
location and	location, size	efforts taken by the	USA	to research agriculture in the
size of the	and population	Government to	- Regionalisation of	USA, factors favouring
USA.	of the USA.	improve and	agriculture in the USA	agricultural development, and
- Identify	<ul> <li>Explain the</li> </ul>	develop	<ul> <li>Agricultural systems</li> </ul>	problems and prospects of
regionalised	regionalisation	agricultural	in the USA.	agriculture in USA.
areas for	of agriculture in	practices in	<ul> <li>Factors favouring</li> </ul>	- In groups, discuss and write
agriculture	the USA.	Rwanda.	agricultural	down the research findings and
in the USA	- Examine the	- Appreciate the	development in the	present to the class. Use Q&A in
and the	agricultural	level of agricultural	USA	the session.
major crops	practices in the	development in the	- Agribusiness in the	- Use knowledge acquired from
grown.	USA and	USA in comparison	USA: agrichemicals,	the above research and class
- Explain the	conduct an	to that of Rwanda.	farm machinery, crop	presentations to discuss factors
agricultural	investigation on	- Appreciate the	production,	favouring agricultural
systems in	how agriculture	importance of	processing, and seed	development in the USA and
the USA.	can be	agriculture in	supply	compare them to those of
- State the	improved in	general.	- Unique problems	Rwanda.

factors that favour agriculture in the USA. - State the forms of agri- business in the USA. - Explain the problems with agriculture in the USA.	<ul> <li>Rwanda.</li> <li>Evaluate the factors favouring agricultural systems in the USA.</li> <li>Analyse the importance of agri-business in the USA.</li> <li>Asses the problems and challenges faced by agriculture in the USA and discuss possible solutions.</li> </ul>		hindering agricultural expansion and possible solutions in the USA	<ul> <li>In groups, discuss and write down the findings. Present the findings to the class and engage them in discussion.</li> <li>Use geographical documents and the internet to discover the level of agribusiness in USA and the problems hindering agricultural expansion. Record the findings. In groups, discuss the findings and give a presentation to the class with a Q&amp;A session.</li> </ul>	
Links to other	Solutions.	farming practices Entro	monourshin, industrial prog		
Links to other s	Links to other subjects: Agriculture: farming practices. Entrepreneurship: industrial processes				
Assessment crit	t <b>eria:</b> Learners are ab	le to clearly interpret the	agricultural development in	USA. in relation to Rwanda	
Materials: Geog	graphical documents,	internet, maps, tactile an	d talking materials, photog	raphs of modern gardens, slide shows,	

video clips and the surrounding agricultural projects.

TOPIC AREA: HUMAN AND ECONOMIC GEOGRAPHY			SUB-TOPIC AREA: EC DEVELOPMENT STU	CONOMIC ACTIVITIES AND DIES
Year & Subject: S.3 Geography and Environment		Unit 18: Development case studies 18.2. Industrialisation 18.2. 1. Industrial development in Germany		No. of periods: 3
Key Unit Competence	e: To be able to compa	are the levels of industria	l development in Germa	any in relation to Rwanda
Learning Objectives				
Knowledge and understanding	Skills	Attitudes and values	Content	Learning Activities
<ul> <li>Give the location, size and population of Germany</li> <li>Name the major industries in the Ruhr industrial region</li> <li>State the factors favouring the growth and development of industries in Germany</li> <li>Identify the</li> </ul>	<ul> <li>Explain the location, size and population of Germany.</li> <li>Locate the major industries found in the Ruhr industrial region.</li> <li>Analyse the factors that favour industrial development in Germany</li> <li>Analyse the</li> </ul>	<ul> <li>Appreciate the level of industrial development in Germany and show continual desire to improve the industries in Rwanda</li> <li>Show respect for the economic contribution of industrialisation in the development of Germany</li> </ul>	Industrial Development in Germany: - Introduction to Germany Ruhr Industrial Complex in Germany. - The major industries in the Ruhr region - Factors for the Ruhr industrial development - Importance and	<ul> <li>Use geographical documents, the internet and photographs to research the major industries in Germany, factors for the Ruhr industrial development, and the importance of industrialisation in Germany. Write down the findings.</li> <li>In groups, discuss the findings from the above research and present them to the class.</li> </ul>

importance and	importance of		problems of	- In groups, discuss the
problems with	various		industrialisation	problems of industrialisation
industrialisation in	industries in		in Germany	in Germany and possible
Germany.	Germany.			solutions. Give a class
				presentation followed by a
				Q&A session.
Links to other subjec	<b>ts:</b> History: industrial i	revolution. Entrepreneurs	hip: industrial developm	ient.
Assessment criteria:	Students are able to co	prrectly analyse the role p	olayed by industrialisati	on in the economic transformation
of Germany and make a	ı distinctive compariso	n with that of Rwanda.		
Materials: Geographic	al documents, illustra	ations, diagrams, maps,	photographs, slide show	vs, video clips, talking and tactile
material, and the local	industries of the count	ry.		

TOPIC AREA: HUMAN AND ECONOMIC GEOGRAPHY			SUB-TOPIC AREA: ECO DEVELOPMENT STUDI	NOMIC ACTIVITIES AND IES	
Year & Subject: S.3 Geography and Environment		Unit 18: Developm 18.2. Industria 18.2.2. Industri in Japa	ent case studies alisation rial development n	periods: 3	
Key Unit Competence: 1	To be able to compare levels of Learning Objectives	industrial developme	nt in Japan in relation to Ry I	wanda I	
Knowledge and understanding	Skills	Attitudes and values	Content	Learning Activities	
<ul> <li>Give the location, size and population of Japan.</li> <li>Identify the major industries found in Japan.</li> <li>Outline the factors favouring the development of industries in Japan.</li> <li>Identify the importance of industrialisation.</li> <li>State the problems affecting industrialisation in Japan.</li> </ul>	<ul> <li>Explain the location, size and population of Japan.</li> <li>Locate the major industries found in Japan.</li> <li>Recognise the factors that favour industrial development in Japan.</li> <li>Analyse the importance of various industries in Japan.</li> <li>Examine the problems affecting industrialisation in Japan and suggest possible solutions.</li> </ul>	<ul> <li>Appreciate the level of industrial development in Japan and show a desire to improve industries in Rwanda.</li> <li>Show respect for the economic contribution of industrialisation in the development of Japan.</li> </ul>	<ul> <li>Industrial Development in Japan:</li> <li>Introduction to Japan</li> <li>Industrial areas of Japan</li> <li>The major industries of Japan.</li> <li>Factors for industrial development in Japan</li> <li>Importance and problems of industrialisation in Japan</li> </ul>	<ul> <li>Using research resources like textbooks and the internet research the factors for industrial development in Japan, and the importance and problems of industrialisation in Japan. Write an extended essay.</li> <li>In groups, discuss the findings and present these to the class followed by a Q&amp;A session.</li> </ul>	
Links to other subjects:	Links to other subjects: History: industrial revolution.				
<b>Assessment criteria:</b> Learners are able to correctly analyse the role played by industrialisation in the economic transformation of Japan and make a distinctive comparison with that of Rwanda.					
Materials: Geographical materials, surrounding ind	documents, illustrations, maps, lustries, internet/Jaws software	instructional charts, p e, and the local environ	bhotographs, slide shows, vi ment.	ideo clips, tactile and talking	

TOPIC AREA: HUMAN AND ECONOMIC GEOGRAPHY			SUB-TOPIC AREA: ECONO DEVELOPMENT STUDIES	MIC ACTIVITIES AND
Year & Subject: S.3 Geography and Env	rironment	Unit 18: Development 18.2. Industrialisa 18.2.3. Industrial	case studies ation Development in the USA	No. of periods: 4
Key Unit Competence:	To be able to analyse the l	evels of industrial develop	ment in the USA	
	Learning Objectives			
Knowledge and	Skills	Attitudes and values	Content	Learning Activities
understanding				
- Identify the major	- Locate major	- Appreciate the level	USA: Industrialisation	- Use geographical
industrial regions	industrial regions	of industrial	- Industrial regions in	documents and the
and types of	and major industries	development in the	USA: Great lakes	internet to research
industries in the USA	found in the USA	USA and show a	region, megalopolis,	industrialisation in
- State the factors	- Describe the factors	desire to improve	coastal areas around	the USA, factors for
favouring the	that favour	the industries in	the Gulf of Mexico, and	industrial
development of	industrial	Rwanda.	the western coast of	development, and
industries in the USA	development in the	- Show respect for the	the USA	their importance and
- Explain the	USA	economic	- Factors influencing	associated problems.
importance of	- Analyse the	contribution of	industrial	- In groups, discuss the
industrialisation in	importance of	industrialisation in	development in the	findings from the
USA	industrialisation in	the development of	USA	above research and
- State the problems of	USA.	the USA.	- Importance, problems	present these to the
industrialisation in	- Demonstrate practical	- Show concern for the	associated with	class.
USA.	ways of developing	low levels of	industrialisation in the	- Using the knowledge
	industrialisation in	industrialisation in	USA and possible	from the above
	Rwanda, based on the	Rwanda.	solutions	findings, discuss and

	acquired knowledge			make relevant	
	of industries in USA			conclusions on the	
				prospects for	
				industrialisation in	
				the USA.	
Links to other subjects	Links to other subjects: History: the industrial revolution. Entrepreneurship: industrial set up and management.				
Assessment criteria: Learners are able to correctly analyse the role played by industrialisation in the economic transformation of any					
country and make a distinctive comparison with that of Rwanda.					
Materials: Illustrations, maps/tactile maps, instructional charts, photographs, slide shows, video clips, textbooks/brailed textbooks,					
surrounding industrial p	surrounding industrial projects/local industries in the country, power point presentations, and access to computers/Jaws software.				

# SUB-TOPIC AREA: ECONOMIC ACTIVITIES AND DEVELOPMENT STUDIES

Year & Subject: S.3 Geography and Environment Unit 18: Development case studies 18.3. Tourism in Switzerland

No. of periods: 3

Key Unit Competence:	To be able to compare l	evels of tourism dev	velopment in Switzer	rland in relation to Rwanda
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Learning Objectives				
Knowledge and	Skills	Attitudes and values	Content	Learning Activities
understanding				
- Give the location,	- Explain the	- Show concern for	Tourism in	- Use geographical
size and	location, size and	environmental	Switzerland	documents, watch
population of	population of	conservation	<ul> <li>Introduction to</li> </ul>	documentary films or
Switzerland.	Switzerland	efforts in Rwanda	Switzerland	observe photographs
<ul> <li>Name the major</li> </ul>	- Justify the tourist	- Appreciate the	- Tourist attractions	related to problems
tourist	attractions of	importance and	in Switzerland	associated with tourism
attractions in	Switzerland.	level of tourism	- Factors for the	in Switzerland
Switzerland.	- Describe the factors	development in	development of the	- Discuss the findings in
- State the factors	that favour the	Rwanda	tourism industry in	groups and present these
favouring the	development of the	- Show concern for	Switzerland in	to the class
development of	tourism industry	low levels of	comparison to that	- Use textbooks, video
tourism in	- Evaluate the	participation by	of Rwanda	clips, internet and field
Switzerland	importance of the	the natives/	- The importance of	study to research the
- Identify the	tourism industry	nationals in	and problems	factors favouring tourism
importance of	- Assess the	supporting the	affecting tourism	in Switzerland, and the
tourism in	problems facing the	development of	and possible	relevant problems and
Switzerland	tourism industry	tourism industry in	solutions in	prospects. Write down
- State the	- Apply knowledge	Rwanda	Switzerland	the findings and draw
problems	acquired on			relevant conclusions.

affecting the	tourism to develop			- In groups, discuss the
tourism industry	suggestions in			findings and make
in Switzerland	improving the			presentation to the class
	tourism industry in			followed by a Q&A
	Rwanda			session.
Links to other subje	ects: Biology: ecosystems.			
Assessment criteria: Learners are able to correctly analyse the role played by the tourism industry in the economic				
transformation of Switzerland and make a distinctive comparison with that of Rwanda				
Materials: Geographical documents, illustrations, maps, instructional charts, photographs, slide shows, video clips, tactile and				
talking materials, sur	rounding tourist areas, ar	nd internet/Jaws software	2.	

# SUB-TOPIC AREA: ECONOMIC ACTIVITIES AND DEVELOPMENT STUDIES

Year & Subject: S.3 Geography and Environment

# Unit 18: Development case studies 18.4. Population in China

#### No. of periods: 3

Key Unit Competence: To be able to compare population problems of China and control measures taken in relation to Rwanda

Learning Objectives				
Knowledge and understanding	Skills	Attitudes and values	Content	Learning Activities
<ul> <li>Give the location, size and population of China</li> <li>State the factors influencing the density and distribution of population in China.</li> <li>Identify the problems with population in China.</li> <li>State the population control policies used in China</li> </ul>	<ul> <li>Explain the location, size and population of China</li> <li>Analyse the causes and consequences of over population in China</li> <li>Evaluate the possible solutions to the problems related to over population in China</li> <li>Analyse the different population control methods used in China</li> </ul>	<ul> <li>Appreciate the importance of the family planning campaign by the Government of China</li> <li>Appreciate the importance of a manageable (optimum) population in maintaining high standards of living</li> <li>Show concern for high population growth and its consequences in China and devise policy measures</li> </ul>	<ul> <li>Population in China</li> <li>Introduction to China</li> <li>Size of population compared to the world population</li> <li>Factors influencing population distribution in China</li> <li>Problems of population in China.</li> <li>Policies for population control in China</li> </ul>	<ul> <li>Use the internet, textbooks, and other geographical documents to locate areas of high and low population in Chine.</li> <li>Write down the findings for group discussion and give a presentation to the class.</li> <li>In groups, discuss the factors influencing population distribution in China, and present the findings in class. Engage the class in a Q&amp;A session.</li> <li>In groups, discuss the population problems in China and the policy measures undertaken to control high population growth. Write down the findings and present these to the class supported by a Q&amp;A session.</li> </ul>
Links to other subj	e <b>cts:</b> Economics: popula	tion		

Assessment criteria: Learners are able to correctly compare the population problems of China and the control measures taken in relation to Rwanda

Materials: Geographical documents, photographs, population maps, graphs, video clips, newspapers, tactile and talking materials, journals, internet/Jaws software and the local environment.

TOPIC AREA: HUMAN AND ECONOMIC GEOGRAPHY			SUB-TOPIC AREA: ECONOMIC ACTIVITIES AND DEVELOPMENT STUDIES			
Year & Subject:		Unit 18: Development case studies		No. of periods: 4		
S.3. Geography and Environment		18.5. Urbanisatio	n in the USA			
Key Unit Competence: To be able to explain the levels of Urbanisation in USA						
	Learning Objectives		Content	Learning Activities		
Knowledge and understanding	Skills	Attitudes and values				
<ul> <li>Identify the major urban areas of the USA</li> <li>State the characteristics of urban centres in the USA</li> <li>Outline the functions of the urban centres</li> <li>Identify the factors for urban growth and development in the USA</li> <li>Identify the importance of and consequences associated with urban areas in USA</li> </ul>	<ul> <li>Locate the major urban areas of the USA</li> <li>Analyse the characteristics of urban centres in the USA</li> <li>Analyse the functions of the urban centres</li> <li>Evaluate the factors for urban growth and development</li> <li>Evaluate the importance of and consequences of urbanisation in USA</li> </ul>	<ul> <li>Appreciate the importance of urbanisation to the economic development of a country</li> <li>Show concern for the consequences of urbanisation and suggest ways of controlling urban sprawl</li> </ul>	<ul> <li>Urbanisation in the USA</li> <li>Major urban areas in the USA</li> <li>Characteristics of urban centres in the USA</li> <li>Functions of urban centres in the USA</li> <li>Functions of urban centres in the USA</li> <li>Factors influencing urban growth and development in the USA</li> <li>Importance and consequences of urbanisation in the USA</li> <li>Case study: New York</li> </ul>	<ul> <li>Use urban photographs, textbooks and the internet to research major urban centres in the USA, their characteristics, and functions. Record the findings.</li> <li>In groups, discuss the findings and present them to the class.</li> <li>Use urban photographs, textbooks and the internet to research the factors that lead to urban growth, and the importance and consequences of</li> </ul>		

Links to other subjects: Entrepreneurship: urban planning and development         Assessment criteria: Students are able to correctly analyse the role played by urbanisation in the economic development of the USA. and make a distinctive comparison to that of Rwanda         Materials: Geographical documents,photographs, slide shows, video clips, tactile and talking materials and the internet	Г	-				
Links to other subjects: Entrepreneurship: urban planning and developmentAssessment criteria: Students are able to correctly analyse the role played by urbanisation in the economic development of the USA. and make a distinctive comparison to that of RwandaMaterials: Geographical documents, photographs, slide shows, video clips, tactile and talking materials and the internet		urbanisation. Record				
<ul> <li>In groups, discuss the findings and present them to the class.</li> <li>Use textbooks, documentaries and photographs to research the urbanisation of New York in reference to the knowledge acquired in the current unit.</li> <li>In groups, discuss the findings and make a report on the findings.</li> <li>Write a diary of a 'day in the life of a New Yorker' and then 'A day in the life of a New Yorker' and then 'A day in the life of a someone who lives in Kigali'.</li> <li>Links to other subjects: Entrepreneurship: urban planning and development</li> <li>Assessment criteria: Students are able to correctly analyse the role played by urbanisation in the economic development of the USA. and make a distinctive comparison to that of Rwanda</li> <li>Materials: Geographical documents, photographs, slide shows, video clips, tactile and talking materials and the internet</li> </ul>		the findings.				
Image: Seessment criteria:findings and present them to the class.Use textbooks, documentaries and photographs to research the urbanisation of New York in reference to the knowledge acquired in the current unit.Image: Image: Ima		- In groups, discuss the				
Links to other subjects: Entrepreneurship: urban planning and developmentthem to the class.Links to other subjects: Entrepreneurship: urban planning and developmentthem to the class.Links to other subjects: Entrepreneurship: urban planning and developmentthe economic development of the USA. and make a distinctive comparison to that of RwandaMaterials: Geographical documents, photographs, slide shows, video clips, tactile and talking materials and the internet		findings and present				
<ul> <li>Use textbooks, documentaries and photographs to research the urbanisation of New York in reference to the knowledge acquired in the current unit.</li> <li>In groups, discuss the findings and make a report on the findings.</li> <li>Write a diary of a 'day in the life of a New Yorker' and then 'A day in the life of someone who lives in Kigali'.</li> <li>Links to other subjects: Entrepreneurship: urban planning and development</li> <li>Assessment criteria: Students are able to correctly analyse the role played by urbanisation in the economic development of the USA. and make a distinctive comparison to that of Rwanda</li> <li>Materials: Geographical documents, photographs, slide shows, video clips, tactile and talking materials and the internet</li> </ul>		them to the class.				
documentaries and photographs to research the urbanisation of New York in reference to the knowledge acquired in the current unit.Image: Second		- Use textbooks,				
photographs to research the urbanisation of New York in reference to the knowledge acquired in the current unit.In groups, discuss the findings and make a report on the findings.Write a diary of a 'day in the life of a New Yorker' and then 'A day in the life of someone who lives in Kigali'.Links to other subjects: Entrepreneurship: urban planning and developmentAssessment criteria: Students are able to correctly analyse the role played by urbanisation in the economic development of the USA. and make a distinctive comparison to that of RwandaMaterials: Geographical documents, photographs, slide shows, video clips, tactile and talking materials and the internet		documentaries and				
Links to other subjects: Entrepreneurship: urban planning and developmentresearch the urbanisation of New York in reference to the knowledge acquired in the current unit.Links to other subjects: Entrepreneurship: urban planning and development- Write a diary of a 'day in the life of someone who lives in Kigali'.Kigali'.Links to other subjects: Entrepreneurship: urban planning and developmentAssessment criteria: Students are able to correctly analyse the role played by urbanisation in the economic development of the USA. and make a distinctive comparison to that of RwandaMaterials: Geographical documents, photographs, slide shows, video clips, tactile and talking materials and the internet		photographs to				
Links to other subjects: Entrepreneurship: urban planning and developmentLinks to other subjects: Entrepreneurship: urban planning and developmentAssessment criteria: Students are able to correctly analyse the role played by urbanisation in the economic development of the USA. and make a distinctive comparison to that of RwandaMaterials: Geographical documents,photographs, slide shows, video clips, tactile and talking materials and the internet		research the				
York in reference to the knowledge acquired in the current unit.In groups, discuss the findings and make a report on the findings.Write a diary of a 'day in the life of a New Yorker' and then 'A day in the life of someone who lives in Kigali'.Links to other subjects: Entrepreneurship: urban planning and developmentAssessment criteria: Students are able to correctly analyse the role played by urbanisation in the economic development of the USA. and make a distinctive comparison to that of RwandaMaterials: Geographical documents, photographs, slide shows, video clips, tactile and talking materials and the internet		urbanisation of New				
Links to other subjects: Entrepreneurship: urban planning and developmentAssessment criteria: Students are able to correctly analyse the role played by urbanisation in the economic development of the USA. and make a distinctive comparison to that of RwandaMaterials: Geographical documents,photographs, slide shows, video clips, tactile and talking materials and the internet		York in reference to				
Links to other subjects: Entrepreneurship: urban planning and developmentAssessment criteria: Students are able to correctly analyse the role played by urbanisation in the economic development of the USA. and make a distinctive comparison to that of RwandaMaterials: Geographical documents,photographs, slide shows, video clips, tactile and talking materials and the internet		the knowledge				
Links to other subjects: Entrepreneurship: urban planning and developmentAssessment criteria: Students are able to correctly analyse the role played by urbanisation in the economic development of the USA. and make a distinctive comparison to that of RwandaMaterials: Geographical documents, photographs, slide shows, video clips, tactile and talking materials and the internet		acquired in the				
<ul> <li>In groups, discuss the findings and make a report on the findings.</li> <li>Write a diary of a 'day in the life of a New Yorker' and then 'A day in the life of a New Yorker' and then 'A day in the life of someone who lives in Kigali'.</li> <li>Links to other subjects: Entrepreneurship: urban planning and development</li> <li>Assessment criteria: Students are able to correctly analyse the role played by urbanisation in the economic development of the USA. and make a distinctive comparison to that of Rwanda</li> <li>Materials: Geographical documents, photographs, slide shows, video clips, tactile and talking materials and the internet</li> </ul>		current unit.				
Links to other subjects: Entrepreneurship: urban planning and development         Assessment criteria: Students are able to correctly analyse the role played by urbanisation in the economic development of the USA. and make a distinctive comparison to that of Rwanda         Materials: Geographical documents,photographs, slide shows, video clips, tactile and talking materials and the internet		- In groups, discuss the				
Image: constraint of the subjects: Entrepreneurship: urban planning and development       report on the findings.         Image: constraint of the subjects: Entrepreneurship: urban planning and development       report on the findings.         Image: constraint of the use		findings and make a				
<ul> <li>Write a diary of a 'day in the life of a New Yorker' and then 'A day in the life of someone who lives in Kigali'.</li> <li>Links to other subjects: Entrepreneurship: urban planning and development</li> <li>Assessment criteria: Students are able to correctly analyse the role played by urbanisation in the economic development of the USA. and make a distinctive comparison to that of Rwanda</li> <li>Materials: Geographical documents, photographs, slide shows, video clips, tactile and talking materials and the internet</li> </ul>		report on the findings.				
in the life of a New         Yorker' and then 'A         day in the life of         someone who lives in         Kigali'.         Links to other subjects: Entrepreneurship: urban planning and development         Assessment criteria: Students are able to correctly analyse the role played by urbanisation in the economic development of the         USA. and make a distinctive comparison to that of Rwanda         Materials: Geographical documents,photographs, slide shows, video clips, tactile and talking materials and the internet		- Write a diary of a 'day				
Links to other subjects: Entrepreneurship: urban planning and development       Yorker' and then 'A day in the life of someone who lives in Kigali'.         Links to other subjects: Entrepreneurship: urban planning and development       Kigali'.         Assessment criteria: Students are able to correctly analyse the role played by urbanisation in the economic development of the USA. and make a distinctive comparison to that of Rwanda         Materials: Geographical documents,photographs, slide shows, video clips, tactile and talking materials and the internet		in the life of a New				
day in the life of someone who lives in Kigali'.         Links to other subjects: Entrepreneurship: urban planning and development         Assessment criteria: Students are able to correctly analyse the role played by urbanisation in the economic development of the USA. and make a distinctive comparison to that of Rwanda         Materials: Geographical documents,photographs, slide shows, video clips, tactile and talking materials and the internet		Yorker' and then 'A				
Links to other subjects: Entrepreneurship: urban planning and development       Kigali'.         Links to other subjects: Entrepreneurship: urban planning and development       Kigali'.         Assessment criteria: Students are able to correctly analyse the role played by urbanisation in the economic development of the USA. and make a distinctive comparison to that of Rwanda       Materials: Geographical documents,photographs, slide shows, video clips, tactile and talking materials and the internet		day in the life of				
Links to other subjects: Entrepreneurship: urban planning and development         Assessment criteria: Students are able to correctly analyse the role played by urbanisation in the economic development of the USA. and make a distinctive comparison to that of Rwanda         Materials: Geographical documents,photographs, slide shows, video clips, tactile and talking materials and the internet		someone who lives in				
Links to other subjects: Entrepreneurship: urban planning and development Assessment criteria: Students are able to correctly analyse the role played by urbanisation in the economic development of the USA. and make a distinctive comparison to that of Rwanda Materials: Geographical documents,photographs, slide shows, video clips, tactile and talking materials and the internet		Kigali'.				
Assessment criteria: Students are able to correctly analyse the role played by urbanisation in the economic development of the USA. and make a distinctive comparison to that of Rwanda Materials: Geographical documents,photographs, slide shows, video clips, tactile and talking materials and the internet	Links to other subjects: Entrepreneurship: urban planning and development					
USA. and make a distinctive comparison to that of Rwanda Materials: Geographical documents,photographs, slide shows, video clips, tactile and talking materials and the internet	Assessment criteria: Students are able to correctly analyse the role played by urbanisation in the economic development of the					
Materials: Geographical documents,photographs, slide shows, video clips, tactile and talking materials and the internet	USA. and make a distinctive comparison to that of Rwanda					

### **6. REFERENCES**

- 1. Adimola, B., Gahima, C., Kivuva, M., & Mmbando J S (2006). *Atlas for East Africa*. Longman: Harlow.
- 2. Buckle, C. (2007). *Landforms and landscapes in Africa. An introduction to geomorphology*. Edinburgh: Pearson Education Limited.
- 3. Bunnett R.B. (2004). *Physical geography in diagrams for Africa*. Longman.
- 4. Crispin, J., & Jegede, F. (2000). *Population, Resources and Development*. London: Collins Publishers.
- 5. Dove, J., Guinness, P., Martin, C., Nagle, G., Payne, D,.&Witherick, M. (2008). *Geography*. Edinburgh: Pearson Education Limited.
- 6. Faniran A. & Ojo O. (1980). *Man's Physical Environment*. London: Heinemann Educational Books Ltd.
- 7. Gotanegre J.F. & Prioul C, Sirven P. (1974). *Géographie du Rwanda*. Bruxelles: éd. A. De Boeck.
- 8. Larousse (2000). *Encyclopédie des Jeunes Larousse*. France: La terre, une planète active.
- 9. Le Callennec, S. (1997). *Histoire géographie, 8<sup>ème</sup> année*. Paris: Hâtier.
- 10. Le Callennec, S. (1997). Histoire géographie, 9ème année. Paris: Hâtier.
- 11. Le Callennec, S. (1997). Histoire géographie, 10ème année. Paris: Hâtier.
- 12. Leong, G.C. (1996). *Certificate physical and Human Geography*. Hong Kong: Oxford University Press.
- 13. Master, D.N. (2000). *Map Reading for East Africa*. Edinburgh: Longman.
- 14. McMorgan, G. C., & Leong, L. G. (1982). *Human and Economic Geography, 2<sup>nd</sup>ed*. New York: Oxford University Press.
- 15. Minns W. J. (1984). A geography of Africa. Macmillan.
- 16. Monkhouse, F. J. (2008). Principles of Physical Geography. London: Hodder Education.

- 17. Monkhouse, F. J. (2007). A Dictionary of Geography, 2<sup>nd</sup>ed. New Brunswick, USA: Transaction Publishers.
- 18. National Curriculum Development Centre (2008). Ordinary Level Geography Curriculum for Rwanda. Kigali: NCDC.
- 19. NCDC. (2013). The Uganda Advanced certificate of Education: Teachers Syllabus for Economics, Geography and History. Vol.
- 20. Needham. (2003). Africa, Asia and Australia. Massachusetts: Pearson Education.
- 21. Senior, M. (1987). Tropical Lands: A Human Geography. Essex, England: Longman Group UK Limited.
- 22. Singapore Ministry of Education (2006). *Geography Syllabus Lower Secondary*.
- 23. The National Curriculum. (1999). *Handbook for Secondary teachers in England Key stages 3 and 4*. London: Department for Education and Employment.
- 24. Waugh, D. (2003). *The new wider world, Second* Edition. United Kingdom: Nelson Thornes.
- 25. Whitton, J. (1984). The Penguin Dictionary of Physical Geography: Great Britain: Penguin Books.

# **7. APPENDICES**

# Weekly allocation

In ordinary level Geography and Environment shall be allocated 3 periods per week; each period takes forty minutes meaning that Geography and Environment subject will be allocated one hundred and twenty minutes per week.

<b>Subjects</b>	and week	lv time	allocation	for or	dinarv	level
2					••••••	

Core subjects	Weight (%)	Number of Periods			
		(1 period = 40 min.)			
		<b>S1</b>	S2	S3	
1. English	11	5	5	5	
2. Kinyarwanda	7	3	3	3	
<b>3.</b> Mathematics	13	6	6	6	
4. Physics	9	4	4	4	
5. Chemistry	9	4	4	4	
6. Biology and Health Sciences	9	4	4	4	
<b>7.</b> ICT	4	2	2	2	
8. History and Citizenship	7	3	3	3	
9. Geography and Environment	7	3	3	3	
10. Entrepreneurship	4	2	2	2	
<b>11.</b> French	4	2	2	2	
12. Kiswahili	4	2	2	2	
13. Literature in English	2	1	1	1	
Sub Total		41 periods	41 periods	41 periods	

II. Elective subjects: Schools can choose 1 subject						
Religion and Ethics	4	2	2	2		
Music, Dance and Drama	4	2	2	2		
Fine arts and Crafts	4	2	2	2		
Home Sciences	4	2	2	2		
Farming (Agriculture and Animal husbandry)	4	2	2	2		
III. Co-curricular activities (Compulsory)						
Physical Education and Sports	2	1	1	1		
Library and Clubs	2	1	1	1		
Total number of periods per week	100	45	45	45		
Total number of contact hours per week		30	30	30		
Total number of hours per year 39 weeks)		1170	1170	1170		