MINISTRY OF EDUCATION AND TRAINING

GRADE 9 GEOGRAPHY SYLLABUS 2020

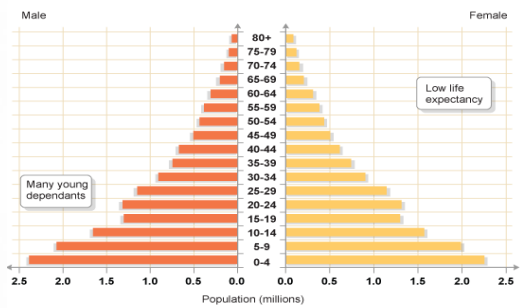

TABLE OF CONTENTS

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1. MR. N.R. MOLISE: NATIONAL CURRICULUM DEVELOPMENT CENTRE (NCDC).
2. MRS. L. LELALA: EXAMINATION COUNCIL OF LESOTHO (ECoL).
3. MRS. MEMANG MAICHU: LESOTHO DISTANCE TEACHING CENTRE (LDTC).
4. MRS. M. TAKALIMANE: CHINA FRIENDLY MIDDLE SCHOOL.
5. MRS. M. MAKHATE: BERENG HIGH SCHOOL.
6. MR. M. SEKONYELA: MOLELLE HIGH SCHOOL.
7. MS. T. BERENG: THABA-TSEKA HIGH SCHOOL.
8. MR. K. SETOI: ST STEPHENS HIGH SCHOOL.
9. MR. M. KANETSI: PUKANE HIGH SCHOOL.
10. MRS. M. LETEBA: MAKHALONG HIGH SCHOOL.
11. MR. K. PITSO: CENEZ HIGH SCHOOL.

1.0 INTRODUCTION

The Geography syllabus is designed as a three-year course to meet the needs of learners studying Geography in secondary education level. The syllabus builds upon the foundation laid by the geography in the Lower Grades. The topics in this syllabus are mainly related to Lesotho, the SADC region and the Africa South of the Sahara.

The Syllabus is organised into four sections. Each section addresses a specific issue. The scope and content of each topic is presented as an overview and Activity Plan. The syllabus **Overview** gives a summary of all the Learning Outcomes to be covered in the syllabus while the **Activity Plan** provide guidance on how to teach the Learning Outcomes and Concepts, promote skills, values and attitudes which learners are expected to have acquired after completing the syllabus. Some objectives also express attitudes and values that are required for nurturing the learner as a responsible citizen of Lesotho. The **Activity Plan** also provide information on suggested learning experiences/activities, Assessment Strategies and resources. To a large extent, the syllabus is linked to national development priorities, especially those relating to sustainable development. Thus the syllabus, through its content, adopts an integrated approach reflecting three pillars of sustainable development (environment, economy and society). It is expected that teachers will stress the link among these pillars at the level of school implementation.

There are two main "strands" or parts of geography, namely: human and physical geography:

(a) **Human geography** studies spatial elements of human existence – the distribution of people across the planet, the use and abuse of that space (land, water and the atmosphere), and how places and spaces are developed and sustained. Human geographers work in diverse fields such as in development agencies, urban and regional planning, transportation, estate agencies, tourism and eco-tourism, and international relations.

(b) **Physical geographers** study patterns of physical processes such as climate, hazards, soils, water and water quality, oceans, landforms and vegetation. These studies are important to understand how situations and elements of the environment are changing, how they require increasing conservation, management and planning in our world and impacts and the use of resources are rapidly increasing. It is difficult to separate these kinds of activities from those of human geographers

1. RATIONALE

Geography is concerned with spatial expression, human and natural systems and the interrelationships among them. It facilitates an understanding of both the issues emerging from human exploitation of natural resources and how natural resources may be managed to assure sustainability. It contributes to an awareness and understanding of the natural environment and fosters an appreciation of its sustainability. It also encourages the development of a sense of responsibility in using and conserving the natural resources of the planet.

Spatial expression and map reading skills are essential to a study of the subject. These skills enable an individual learner to operate better in space by being able to establish a location and an orientation whether inside a town or a rural area, or on a mountainside and to be able to read the landscape as well as assess the forces which have shaped them.

The study of Geography, therefore, prepares a learner not only for a career in fields such as environment planning and management, international relations and geographical information systems, but also helps to develop skills that contribute to more meaningful and enjoyable travel and related leisure activities.

The Lesotho Grade 9 Geography syllabus is not only limited to a study of the Lesotho as a country, but also focuses on the SADC region and areas of study that are particularly relevant to Basotho learners. The syllabus utilizes field studies to concretize the link between the subject matter of Geography and the methods of investigation associated with it. Learners have an opportunity to observe, experience, reflect on, and draw conclusions about the intricate inter-dependence and inter-relationships that comprise the human and natural systems. A learner completing the Lesotho Grade 9 Geography syllabus should be able to make informed and rational decisions and act responsibly with respect to the human and natural systems.

The study of this grade 9 Geography syllabus, therefore, prepares learners to a variety of careers such as: cartographer, commercial/residential surveyor, environmental consultant, geographical information systems, planning and development surveyor, school teachers, town planner, international aid/development worker, landscape architect, logistics and distribution manager, market researcher, bio-geographer/ecologist, climatologist , coastal zone manager, college/university lecturer/researcher , community developer, conservationist, consultant in a range of

geographical fields, development facilitator, delivery manager, diplomat, earth scientist, economic development planner, environmental educator, environmental impact analyst, environmental manager, environmental planner , foreign service officers, geologist, geomorphologist , hazardous waste planner, health services planner, hydrologist , land use planner, map editor , map librarian, air photo and satellite image interpreter, market researcher , meteorologist, military planner, natural resource manager , police, regional planner , remote-sensing analyst, social ecologist, social scientist, soil scientist, traffic manager, transportation planner , urban/city planner, and water resource manager.

3. AIMS AND OBJECTIVES

3.1 AIMS

The syllabus aims to:

1. promote an awareness of the spatial and temporal patterns which exist in the distribution of environmental phenomena, both natural and cultural;
2. develop an understanding of processes-social and economic-which operate to produce and shape these patterns;
3. develop an understanding of the complex interactions which among these phenomena in a world which is constantly changing;
4. promote a sensitive awareness of the environment;
5. encourage in learners a sensitive awareness of people, places and landscapes, both in their own country and elsewhere;
6. contribute to learners' understanding of important issues and problems in contemporary society;
7. provide opportunities to foster and build upon learners' natural curiosity about their own and other people's social and physical environments;
8. help to develop organized thinking and cognitive abilities-not only in the area of important factual knowledge, but in application, analysis, synthesis, evaluation, creativity and imagination;
9. develop a range of practical, social, valuing and communication skills which are of geographic and general significance; and
10. develop an understanding of the interrelationships between the natural and the human environment.

3.2 OBJECTIVES

The Grade 9 syllabus objectives spells out knowledge, skills values and attitudes which learners should be encouraged acquire and develop through this syllabus.

3.2.1 KNOWLEDGE

In the Grade 9 syllabus, learners should acquire information and develop understanding of:

1. examples of physical environment phenomena and processes relating to Lesotho, SADC and wider region,
2. examples of social, cultural and economic phenomena and processes relating to Lesotho, SADC and wider region;
3. the interaction of such phenomena, VIZ:

- how groups of physical environmental phenomena interact;
- how groups of social, cultural and economic phenomena interact;
- how physical, social, cultural and economic phenomena interact with one another.

4. the effects of such interaction;
5. the nature and diversity of physical and cultural landscapes in Lesotho, SADC region and elsewhere;
6. the practical aspects of all the above as they relate to learners' local environment and community.

3.2.2 CONCEPTS

In the grade 9 syllabus, learners will develop:

1. understanding of the key concepts around which the syllabus is structured, VIZ:

    - physical geography;
    - economic geography;
    - settlement, population and migration; and
    - basic techniques and inquiry skills.;

2. the ability to and apply these concepts in such a way as to develop their understanding of significant generalisation, including models, theories and principles.

3.2.3 SKILLS

In the grade 9 syllabus, learners should have the opportunity to develop and practice the following skills:

1. use and interpretation of a variety of information sources:
    - maps (reading and working with both small scale and Ordnance survey maps);
    - figures (understanding information provided in the form of figures such as line graphs, bar graphs, pie charts, diagrams and pictorial models);
    - statistics (understanding information provided in numerical form and undertaking simple measurements and calculations);
    - photographs (interpreting and understanding photographs, including aerial and satellite photographs);
    - pictures (understanding information provided in the form of pictures and cartoons);
    - textual sources (reading and understanding geographical terminology);
    - electronic sources (e.g. computerized data and packages, TV and radio programmes, audio and video tapes);
    - presentation and communication of information and ideas in a variety of ways (including maps, figures, statistics, written and oral);

- selection and use of a variety of modes of enquiry, both geographical and general in nature including:

    - location, retrieval and collection of information;]
    - recording, collating, and representing information; and]
    - analysing, classifying, and interpreting information.]

- use of first-hand geographical enquiry in fieldwork and street work (collecting, recording, evaluating information gained outdoors; proper use of equipment and techniques; identifying appropriate places to test out ideas);
- synthesizing and evaluating information (e.g. distinguish facts from opinions, draw conclusions, prove simple hypotheses, make informed judgements, suggest sensible solutions to problems and, where appropriate, suggest realistic plans of action); and
- social skills (e.g. working effectively alone or in groups, following instructions, teamwork and cooperation, use of verbal communication to find out and pass on information).

3.2.3.1 PRACTICAL SKILLS

The grade 9 Geography syllabus intends also to develop some practical skills in learners. These include:

SKILL	INTERPRETATION
MAP INTERPRETATION. (Being able to work with small scale and Ordinance Survey maps).	▪ Extract information from maps. ▪ Recognise symbols. ▪ Read heights at (and between) contours. ▪ Measure straight and winding distances. ▪ Use grid references. ▪ Identify simple geographical relationships. ▪ Relate maps to photographs and other sources of information. ▪ Orientation in the field. ▪ Calculate map area. ▪ Identify concave and convex slopes. ▪ Form generalisations from map data. ▪ Recognise the comparative limitations of maps for different purposes.

FIGURE INTERPRETATION. (Being able to comprehend and analyse information provided in the form of figures).	▪ Understand information provided in the form of figures such as line graphs, bar graphs, pie-charts, simple diagrams and pictorial models. ▪ Analyse information provided in this form. ▪ Evaluate the effectiveness of a figure as a mode of presentation.
PHOTOGRAPH ANALYSIS. (Being able to interpret photographs including aerial (vertical & oblique) and satellite photographs).	▪ Identify and interpret major features and simple geographical relationships and patterns depicted in these photographs. ▪ Describe such features, relationships and patterns in simple and accurate language. ▪ Compare what is observed in a photograph with what is observed in a map of the same area. ▪ Recognise the limitations concerning the use of certain kinds of photographs.
NUMERICAL SKILLS AND CALCULATION. (Being able to understand information in numerical form and carry out simple calculations based on such information).	▪ Read statistics and other numerical data. ▪ Recognise simple patters and trends as indicated by these data. ▪ Compare and relate two or more sets of data. ▪ Carry out simple calculations based on given data. ▪ Carry out more complex calculations on given data. ▪ Make extrapolations, forecasts and projections based on recognised patterns and trends.
FIGURE DRAWING. (Being able to depict written or statistical information in the form of figures).	▪ Draw figures such as line graphs, bar graphs, pie-charts and diagrams (including cross-section diagrams from map information). ▪ Draw pictorial models and sketches of geographical features.
MAP DRAWING. (Being able to draw and sketch detailed	▪ Draw sketch maps from given data in various forms.

maps).	▪ Draw sketch maps from memory. ▪ Draw detailed maps from given data, to scale, if required.
FIELDWORK. (Being able to collect, record and evaluate information gained out of the classroom; being able to use equipment properly, and being able to identify appropriate places to test our ideas).	Plan and execute a geographical investigation: o record observed data in accordance with a clearly articulated aim; o simple clarification of data; o recognise patterns and relationships; o draw conclusions and make generalisations; and o use of appropriate methods of presentation.

3.2.4 VALUES AND ATTITUDES

Through their grade 9 Geography syllabus, learners should be encouraged to develop positive values and attitudes towards themselves, others and their environment. Such values and attitudes include:

1. freedom and responsibility;
2. stewardship of resources;
3. frugality;
4. personal ecology;
5. willingness to perceive and evaluate natural and cultural phenomena from the point of view of others;
6. appreciation of social, cultural and environmental diversity;
7. awareness of the dangers of all types of stereotyping and prejudice;
8. sensitive awareness of the aesthetic quality of the natural and cultural environment, leading to a desire to maintain their quality;
9. a responsible attitude towards the exploitation and conservation of resources;
10. sensitivity towards the interplay of conflicting needs involved in environmental planning - e.g. social, aesthetic, ecological, economic etc.;
11. a positive attitude towards participation in democratic processes, particularly those which influence decision-making;
12. readiness for personal commitment and involvement; and
13. self-confidence, self-esteem and an understanding of the bases of their own perceptions.

SCHEME OF ASSESSMENT

All learners should take both Paper 1 and Paper 2.

Paper 1

1 hour 45 minutes

Learners should answer all the questions.

This paper consists of short answer questions divided in the following manner:

Syllabus Section A
Physical Geography.

Syllabus Section B

Economic Geography.

Syllabus Section C
Settlement, Population and Migration.

Syllabus Section D
Basic Techniques and Inquiry Skills.

Questions on syllabus sections A, B, and C will total 25 marks, with a maximum of 10 marks for each section. The map work questions will total 15 marks. The inquiry and presentation skills question will total 20 marks.

Total: 60 marks

Weighting: 37.5% of total marks

Paper 2 **2 hours 15 minutes**
This paper is divided into 3 sections, each consisting of two questions of 25 marks each: **Section A : Elements of Physical Geography** **Section B: Economic Geography** **Section C : Settlement, Population and Migration** ***Candidates will be required to answer four questions, one from each of sections A, B and C and one other question chosen from any section. Each question will include a part involving free response writing.*** **Total: 100 marks** **Weighting:62.5%**

RESOURCES

The majority of questions in both papers will be resource based. The resources offered may be photographic, map extracts, drawings, diagrams, graphs, text extracts, statistics and tables of data.

Questions based on resources may be set on areas not named in the syllabus but will provide sufficient information to enable learners to answer them without specific regional knowledge. The resources used in the examination will assist learners to analyse and interpret them using general principles they have studied.

ASSESSMENT OBJECTIVES

The grade 9 Geography syllabus reflects the following assessment objectives:

1. knowledge with understanding.
2. skills and analysis.
3. judgement and decision making.

DESCRIPTION OF ASSESSMENT OBJECTIVES

The following are descriptions of each assessment objective:

1. Knowledge with understanding.

The syllabus intends for learners to develop knowledge of:

a. geographical concepts, terms, facts, features and processes in different environments;
b. causes and effects of geographical processes;
c. diverse spatial patterns of physical and human phenomena/features;
d. components of physical and human environments;
e. interaction of physical and human geography;
f. how physical and human environments change over time and from place to place.
g. relationships and interactions between and within physical and human phenomena at local, regional and global scales; and
h. different approaches through which challenges faced can be managed by local, regional and global communities.

2. Skills and analysis.

The syllabus intends for learners to develop the skills to:

a. understand, describe and extract information from geographical data in various forms, including maps, diagrams, photographs, graphs and tables;
b. use a variety of graphical and drawing skills and techniques to present geographical information.
c. work effectively in teams to observe, collect and record geographical data obtained from both primary and secondary sources;
d. derive knowledge and understanding from field experiences of places and natural environments;
e. interpret maps, atlases, tables, graphs, photographs and fieldwork data;
f. analyse, interpret and recognise patterns in geographical data and suggest relationships; and

g. organise and present geographic information in a coherent way.

3. Judgement and decision making.

Learners should be able to:

a. make reasoned judgments (including conclusions) and decisions;
b. show an awareness of the part played by different attitudes and values of individuals and groups, in the processes of evaluation and decision making;
c. show awareness of how different attitudes and beliefs impact on the environment;
d. propose, justify, and evaluate solutions to environmental, economic and socio-geographic problems; and
e. infer future trends and consequences related to environmental, economic and socio-geographical problems.

SPECIFICATION GRID

The Grid shows the relationship between the assessment objectives and components of the scheme of assessment and indicates how the marks will be allocated.

ASSESSMENT OBJECTIVES			
Paper	**Knowledge with Understanding**	**Skills and Analysis**	**Judgement and Decision Making**
1	27%	60%	13%
2	40%	36%	24%
Overall	35%	45%	20%

Distribution of marks for Assessment Objectives.

Paper 1			
Section	**Knowledge with understanding**	**Skills and analysis**	**Judgment and decision making**
A, B and C	**12**	**10**	**3**
D	**4**	**26**	**5**
Total	**16**	**36**	**8**

Paper 2			
	Knowledge with understanding	**Skills**	**Judgment and decision**
Marks for each	**10**	**9**	**6**
Total	**40**	**36**	**24**

SUGGESTED TIME-TABLE ALLOCATION

It is recommended that a minimum of five 40-minute periods per week or the equivalent be allocated to the syllabus. The time should include at least one double period for field work.

LAYOUT AND PRESENTATION OF THE SYLLABUS

The Grade 9 Geography syllabus is divided into two parts, namely; an **overview** and **activity plan**. All the Learning Outcomes that has been covered in the syllabus are listed in the initial part of the syllabus called an **overview**. In the overview of the Social Science syllabus, the icon **TG** appears next to the Learning Outcome to indicate that it is guided in the Teacher's Guide. Numbering of Learning Outcomes in the Teacher's Guide is the same as that in the syllabus. The **Activity Plan** is a long table divided into five columns. The columns are as follows:

Learning outcome: a statement in measureable terms of what a learner should know, understand or be able do by the end of a given segment of the syllabus.

For each targeted learning outcome, details are given of:

The key concepts, skills, values and Attitudes which underpin its successful attainment.

i. **Concept:** a general idea which emerges from a specific situation; once understood it can be applied to different contexts to promote understanding. For example, the concept of the family emerges from awareness of the familiar unit in which people live; it can be applied to groups of animals, plants or words which naturally belong together.
ii. **Skills:** abilities which every learner is expected to acquire to help them learn and live well in society; they can be mental, physical or social.
iii. **Values:** qualities which are considered to be important, worth preserving and transmitting to the younger generation. For example, Basotho consider honesty and respect to be essential values.
iv. **Attitudes:** positions or opinions, what is appreciated or disliked by an individual or a group.
v. **A list of suggested learning experiences**: teaching and learning activities designed to enable learners to achieve a given learning outcome. This is not exhaustive and the teacher is free to use other complementary activities.
vi. **What to assess:** in this column, the learning outcome is broken down into several specific, measurable and observable points, against which the teacher can check the learner`s progress. These focus on the process and characteristics of learning rather than the final outcome.
vii. **A list of suggested resources:** a list of possible items, materials, persons (etc) which may be used to help achieve a given learning outcome. This is designed to help all teachers, however many or few resources may be available in their schools and communities.

GRADE 9 GEOGRAPHY SYLLABUS
OVERVIEW

Learning Outcomes: at the end of Grade 9 , learners should be able to:

PHYSICAL GEOGRAPHY

1. describe and differentiate between the internal and external processes that shape the surface of the earth.
2. demonstrate geographic understanding of the physical processes that shape the patterns of the Earth's surface.
3. develop an appreciation for sustainable utilisation and management of water as resource in Lesotho and the SADC region.
4. explain marine processes.
5. explain and appreciate weather elements, patterns and climate of Lesotho and the SADC region.
6. explain and appreciate different climatic regions and their influence on natural and human activities.
7. explain causes of global warming in Lesotho and the SADC region.

ECONOMIC GEOGRAPHY

8. explain agricultural systems in Lesotho and South Africa.
9. describe the value/importance of irrigation and soil conservation in Lesotho and South Africa.
10. appreciate the role of mining industry to Lesotho's economy.
11. explain the principles involved in the establishment of the processing and manufacturing industries in Lesotho.
12. assess the environmental and socio-economic impact of power production in Lesotho.
13. evaluate the impact of leisure activities and tourism to the economy of Lesotho.

SETTLEMENT, POPULATION AND MIGRATION

14. assess the dynamic nature of rural settlement in Lesotho.
15. explain and analyse factors influencing population change and its effect on the environment.
16. show an understanding of the causes and effects of migration in Lesotho and South Africa.

17. evaluate the socio-economic impact of HIV and AIDS in Lesotho.

BASIC TECHNIQUES AND INQUIRY SKILLS

18. read and interpret topographic maps with full keys from the SADC region on the scale of 1:50 000 and 1: 25 000.
19. apply research skills to geographical information.

GRADE 9 GEOGRAPHY SYLLABUS
ACTIVITY PLAN

PHYSICAL GEOGRAPHY

Learning outcomes: at the end of Grade 9, learners should be able to:	Concepts, skills, values and attitudes	Suggested Learning Experiences	Assessment Criteria: the teacher should assess learner's ability to:	Resources
1. describe and differentiate between the internal and external processes that shape the surface of the earth.	**THE EARTH'S STRUCTURE**			
	Concepts **Composition of the earth.** **The four spheres or components of the biophysical environment:** - atmosphere; - hydrosphere; - lithosphere; - biosphere **Structure of the earth:** o core o mantle o crust o continental; and oceanic crust.	• Teacher explains composition of the earth and introduces learners to the four spheres or components of the biophysical environment. • Teacher describe the structure of the earth. • Teacher and learners discuss the three layers that comprise the Earth's structure. **Learners:** • draw and label the diagram showing the internal structure of the earth. • construct models to describe the internal structure of the earth.	describe the four spheres or components of the biophysical environment. describe the structure of the earth using both text and diagrams. describe the layers of the internal structure of the earth in relation to thickness and mineral composition. draw the structure of the Earth. construct models showing the structure of	Clay. Charts. World map. Globe. Internet.

	Skills Observation. Identification. Classification. Drawing. Research. Reporting. **Values and attitudes** Awareness. Appreciation. Patience. Tolerance. Cooperation.		the Earth.	
2. demonstrate geographic understanding of the physical processes that shape the patterns of the Earth's surface.	**WEATHERING**			
	Concepts **Rock.** **Types of rock:** - Igneous; - Sedimentary; and - Metamorphic. **Uses of rocks.** **Geomorphic processes:** - weathering. **Types of weathering:** - physical;	• Teacher and learners discuss formation, characteristics and uses of rocks, examples of Igneous, Sedimentary and Metamorphic rocks. • Teacher describes the three types of weathering. • Teacher and learners describes general factors affecting the rate of weathering. • Teacher and learners discuss specific factors affecting the rate of weathering with reference	discuss formation, characteristics, examples of the three types of rocks and their uses. describe the three types of weathering. describe general and specific factors affecting the rate of weathering. explain process of physical, biological and	Prescribe Textbooks. Videos. Charts. Internet. Photographs. Rock samples. Pictures.

	- chemical; and - biological. **General factors affecting the type and rate of weathering:** - climate, - rock type, - rock structure, - vegetation, and - relief. **Specific factors affecting the type and rate of weathering**: - temperature and - rainfall. **Physical/mechanical:** - exfoliation; and - freeze thaw/wetting and drying. **Chemical weathering:** - oxidation. - hydration. - carbonation. - solution. **Biological weathering processes**.	to Lesotho. • Teacher explains physical, biological and chemical weathering. • Learners draw diagrams showing exfoliation, freeze thaw and block disintegration. • Under the guidance of a teacher, learners do some experiments to show different types of chemical weathering. • Learners differentiate among physical, biological and chemical weathering. • Under the guidance of a teacher, learners interpret different **Peltier diagrams.**	chemical weathering. draw diagrams showing exfoliation, freeze thaw and block disintegration. carry out experiments showing different types of chemical weathering. interpret a **Peltier diagram** correctly.	

	Peltier diagram. **Skills** Identification. Observation. Evaluation. Analysis. Interpretation. Information finding. Reporting. **Values and attitudes** Awareness. Appreciation. Cooperation. Respect. Environmental consciousness**.**			
3. develop an appreciation for sustainable utilisation and management of water as resource in Lesotho and the SADC region.	**RIVER PROCESSES AND RESULTING LANDFORMS.**			
	Concepts **River courses/stages.** - upper course/youthful stage. - middle course/mature stage. - lower course/old age stage. **Processes of river erosion:**	• Teacher and learners revise processes, flows and stores in the hydrological cycle. • Teacher and learners revise drainage patterns. • Teacher and learners revise sources of water in Lesotho in relation to reverse osmosis plants and underground water. • Teacher and learners revise	name the three stages of a river profile describe characteristics of the three stages of a river. explain different processes of river erosion and transport.	Prescribed Textbooks. Maps. Charts. Internet.

	- solution/corrosion; - abrasion/corrosion; - hydraulic action; and - attrition. **Factors affecting river erosional processes:** - volume; - gradient; - speed/velocity; - nature of bed rock; and - nature of load. **Processes of river transportation:** - solution; - suspension; - saltation; and - traction. **Factors affecting processes of river transportation:** - load; - velocity; and - volume. **Factors affecting river deposition:**	the drainage basin in relation to: o source; o mouth; o tributary; o confluence; o watershed; and o main river. • Teacher and learners discuss factors affecting the rate of a river's discharge: • Teacher and learners describe the characteristics of a river valley in terms of the upper, middle and lower course. **Learners**: • name and describe the erosional processes of a river system. • describe and explain how a river transports its load. • analyse the reasons why and where in a river's course deposition takes place, with reference to volume and velocity of flow, nature of the load and bed-rock.	describe factors influencing erosional, transportation and depositional processes of a river. draw the long profile of a river. explain flooding.	

	- volume; - gradient; - speed/velocity; - nature of bed rock; and - nature of load **Flooding:** - causes of flooding; - flood hydrographs; and - flood management **Skills** Observation. Awareness. Accuracy. Critical thinking. Drawing. Analysis. Creativity. **Values and Attitudes** Cooperation. Appreciation. Nature loving. Efficacy. Environmental concern. Consciousness.	• draw the long profile of a river. • take a field trip to identify stages/courses of a river and their characteristics. • In groups, learners discuss factors affecting erosional, transportation and depositional processes of a river. • Under the supervision of a teacher, learners measure a river's velocity/speed and gradient. • Teacher and learners discuss causes of flooding, how to interpret flood hydrographs and how to manage floods.		
4. explain marine processes.	**MARINE PROCESSES AND ASSOCIATED COASTAL LANDFORMS.**			
	Concepts **Wave.**	• Learners brainstorm about the differences between a	state the difference between a river and	Charts.

	Wave generation and characteristics: - swash, and - backwash **Types of waves:** - constructive; and - destructive. **Properties of waves:** - wavelength; - wave height; - wave period; - wave thorough; and - wave crest. **Wave erosion:** - abrasion; - hydraulic action; - attrition; and - corrosion/solution. **Wave transport:** - solution; - suspension; - saltation; and - traction. Wave deposition.	river and sea. • Teacher describes wave generation (swash and backwash). • Teacher and learners discuss types of waves. • Teacher explain properties of waves. • Teacher and learners discuss properties of waves. • Teacher and learners discuss different processes through which wave erosion takes place. • Teacher and learners discuss ways in which waves transport materials. • Teacher describes the longshore drift.	sea. describe how waves are generated and differentiate between a swash and backwash. state types of waves. describe properties of waves. describe different processes through which wave erosion takes place. describe the longshore drift.	Atlas. Videos. National Geographic channel.

	Longshore drift. **Skills** Observation. Awareness. Accuracy. Critical thinking. Drawing. Analysis. Creativity. **Values and attitudes** Cooperation. Appreciation. Nature loving. Efficiency. Environmental concern. Stewardship of resources. Consciousness.			
5. explain and appreciate weather elements, patterns and climate of Lesotho and the SADC region.	**WEATHER AND CLIMATE**			
	Concepts Weather and climate. **Weather Elements:** rainfall temperature humidity air pressure wind speed wind direction	• Learners distinguish between weather and climate. • Under the guidance of a teacher, learners measure, record and analyse weather statistics of temperature, rainfall, humidity, air pressure, cloud cover , sunshine, wind speed and	state the difference between weather and climate. measure, record analyse weather statistics of temperature, rainfall, humidity, air pressure, cloud cover, sunshine, wind speed and wind	Weather instruments. Weather maps. Charts. Pictures. Statistical

	sunshine. cloud cover. **Weather instruments, their characteristics and siting:** rain gauge; six's thermometer; hygrometer; barometer; cup anemometer; wind vane; and sunshine recorder. okta. **The Stevenson screen:** characteristics, and siting. **Factors influencing temperature**: altitude. Latitude. cloud cover. pressure systems. ocean currents. distance from the sea Factors influencing weather	wind direction. • Learners visit the nearby weather station to observe how different weather instruments and the Stevenson screen are used. • Learners draw rain gauge, six's thermometer, hygrometer, barometer (mercury and aneroid), wind vane, cup anemometer and sunshine recorder. • Teacher and learners discuss factors influencing temperature. • Teacher and learners describe factors influencing weather and climate. • Learners analyse synoptic charts interpreting different weather. • Teacher explains the relationship between air pressure and global wind systems. • Teacher and learners discuss the formation of El Nino and La Nino and their impacts on human activities. • Teacher and learners	direction. describe characteristics of the Stevenson screen and its siting. draw and label rain gauge, six's thermometer, hygrometer, barometer(mercury and aneroid),wind vane, cup anemometer and sunshine recorder. describe factors influencing temperature. explain factors that influence air temperature and pressure. describe factors influencing weather and climate. name signs and symbols used in weather maps.	tables. Weather station.

	and climate. Synoptic charts. Simple weather maps. Weather statistics. **Air pressure and global wind systems:** - differential heating and cooling of the earth's surface; - factors influencing air pressure; - air pressure belts; - land and sea breezes, and - prevailing and seasonal winds. **El Nino and La Niña.** **Types of rainfall:** - relief; - convectional; and - frontal. **Skills** Identification.	explain the formation of the relief, frontal and convection rainfall with reference to Lesotho. **Learners** • use weather statistics to learners calculate: daily, monthly and annual range of temperature. daily, monthly and annual mean temperature. Relative humidity and rainfall. • observe cloud cover and identify types of clouds, their characteristics and associated weather. • observe and record cloud cover. • use simple weather maps to interpret the climatic conditions of a particular area.	describe weather conditions using symbols. explain the relationship between air pressure and global wind systems. explain the effects of El Nino and La Nino to human activities in Lesotho and the SADC region. describe the formation of the **three** types of rainfall with reference to Lesotho. name and describe characteristics of clouds. measure clouds and anticipate the related weather.	

	Observation. Accuracy. Interpretation. Analysis. Evaluation. **Values and attitudes** Awareness. Appreciation. Cooperation. Accountability. Efficiency. Appreciation of diversity.			
6. explain and appreciate different climatic regions and their influence on natural and human activities.	**CHARACTERISTICS OF SELECTED CLIMATE REGIONS.**			
	Concepts **Climatic regions:** Warm temperate; and Mediterranean. **Skills** Identification observation Interpretation Analysis Accuracy Critical thinking **Values and attitudes** Appreciation. Awareness.	• Teacher explain the concept of climate and introduces learners to different climatic regions. **Learners:** • use climate graphs to locate the climate type of Lesotho and Cape Town. • differentiate between climate types and characteristics of natural vegetation and human activities in Lesotho and Cape Town. • demonstrate how human	locate the climate type of Lesotho and Cape town on the climate map. describe the differences between the climate types of Lesotho and Cape Town. locate warm temperate and Mediterranean climatic regions on the map of Africa. explain the following	Climate graphs. Climate and vegetation maps. Photographs. National Geographic channel. Journals. Internet.

	Environmental concern. Stewardship of resources. Personal ecology.	interference on the natural vegetation found in the climatic regions studied impacts on the ecosystem. • In pairs learners demonstrate ways of conserving natural vegetation found in the studied climatic regions.	climatic regions: - warm temperate, and - Mediterranean. suggest ways in which the fauna and flora can be conserved in the studied climatic regions.	
7. explain causes of global warming in Lesotho and the SADC region.	**GLOBAL CLIMATE CHANGE**			
	Concepts **Natural Hazards:** - snow; - floods; - earthquakes; - volcanic eruptions; and - hurricanes. Impacts of natural hazards in Lesotho and the SADC region. **Responses hazards in Lesotho:** - individual responses: o preparedness; and o community	**Learners:** • define a natural hazard. • describe the impact of one of the following on life and property: volcanic eruptions; earthquakes; hurricanes; and snow • explain the response to natural hazards common in Lesotho at an individual, national and regional level. • define pollution. • describe the types of pollution common in Lesotho. • identify areas in Lesotho where pollution is a	describe hazards and show their impacts in Lesotho. explain the response to hazards at an individual, national and regional level. describe deforestation, its causes, and consequences suggest measures to curb deforestation. describe Lesotho' climate system.	Resource persons from Lesotho Meteorological Services (LMS). Charts. Internet. Videos. Media. Climate Change Toolkit.

	involvement). - National responses: o national disaster organization activities [for example, Office Disaster Management Authority (DMA)]; and o role of national organizations. - Regional responses. **Deforestation:** - causes of deforestation in Lesotho; - consequences of deforestation in Lesotho; and - measures to reduce the impact of deforestation in Lesotho. **Skills.** Identification. Observation. Interpretation. Analysis.	problem. • describe measures used to reduce pollution in Lesotho, the SADC region and the wider society. • discuss deforestation, its causes, consequences and measures to reduce its impacts in Lesotho.		

	Accuracy. Critical thinking. **Values and attitudes.** Appreciation. Awareness. Environmental concern. Stewardship of resources.			

ECONOMIC GEOGRAPHY

Learning outcomes: **at the end of the syllabus, learners should be able to:**	**Concepts, Skills, Values and Attitudes**	**Suggested Learning Experiences**	**Assessment Criteria: the teacher should assess learners' ability to:**	**Resources**
8. explain agricultural systems in Lesotho.	**AGRICULTURAL SYSTEMS IN LESOTHO**			
	Concepts **Agricultural Systems in Lesotho in terms of:** - inputs; - outputs; - scale of production. - activities involved (land clearance, irrigation methods etc.); uses; market and	• Teacher revises soil types and their properties • Teacher introduces learners to Agriculture as a concept. **Learners:** • use textbooks and internet to define the term agriculture systems. • visit the agriculture sector to investigate agricultural systems in Lesotho.	define agricultural systems. describe agricultural systems in Lesotho. explain the physical, social, economic and political factors affecting agricultural land use and practises in Lesotho.	Resource person. Text books. Internet. Statistical data. Flyers and pamphlets.

	importance; problems encountered (including environmental, social and economic issues related to land clearance); and - solutions to the problems. **Factors (physical, social, economic, political) affecting agricultural land use and practices in Lesotho:** - the roles of irrigation, - land tenure, - the nature of demand and distance from markets, and - agricultural technology. Types of Agriculture. Methods of Agriculture. Trends in Agricultural systems in Lesotho.	• explain the social, economic, physical and political factors affecting agricultural land use and practises in Lesotho. • describe types and methods of agriculture in Lesotho. • describe the trends in agricultural systems in Lesotho. • describe the importance of agriculture in Lesotho. • explain the challenges facing agriculture in Lesotho. • explain the changing role of agriculture in Lesotho 'economy. • evaluate the impact of different farming systems in Lesotho such as: - Machobane; - Block farming; and - Conservation agriculture. **CASE STUDY** 1. Learner must study locate **one** area in Lesotho where commercial farming is	explain trends in Agricultural systems in Lesotho. describe types and methods of agriculture in Lesotho. describe the importance of agriculture in Lesotho. explain challenges facing Agriculture in Lesotho. evaluate the impact of the Machobane, Block farming, and Conservation agriculture farming systems in Lesotho. explain the changing role of agriculture in Lesotho. Locate, **study and evaluate the**	Media (TV, radio).

	Importance of agriculture in Lesotho. Farming systems in Lesotho: - Machobane; - Likoti; - Block farming; and - Conservation agriculture. **Challenges facing Agriculture in Lesotho:** - globalization, - technology, - marketing and - sustainability. **Changing role of agriculture in Lesotho.** - trends in employment; - contributions to Gross Domestic Product (GDP); - acreage; - diversification; and - marketing. **Commercial farming in Lesotho.**	practised to identify the following: o Location of the selected commercial arable farming. o characteristics of the selected commercial arable farming. o trends in commercial arable farming in the **CASE STUDY** Learner must study one commercial farming in Lesotho to identify the following: - location of the selected commercial arable farming. - characteristics of the selected commercial arable farming. - trends in commercial arable farming in the selected/studied area. - Contribution to the economy: o employment; o contribution to the Gross Domestic Products (GDP); o acreage; o diversification; and	**effectiveness of** at least **ONE** area in Lesotho where commercial arable farming is practised.	

	Skills Identification. Observation. Analysis. Judgement. Decision making. **Values and Attitudes** Appreciation. Awareness. Cooperation/team work. Efficiency. Responsibility. Appreciation of diversity.	○ marketing.		
9. describe the importance of irrigation and soil and water conservation in Lesotho.	**Concepts** **Irrigation.** **Methods of irrigation in Lesotho:** surface irrigation; micro irrigation; drip irrigation; and sprinkler irrigation. Importance of irrigation. **Conservation of water:** household applications; commercial	• Teacher introduces irrigation. • Learners form groups to discuss different irrigation methods used in Lesotho. • Learners discuss the importance of irrigation in Lesotho. • Learners take a field trip to find the role of stakeholders in sustainable use of water. • Learners identify two areas on their environment (school and home) that is affected by soil erosion and use appropriate methods to	describe irrigation. explain different irrigation methods used in Lesotho. state importance's of irrigation in agriculture. do a project in their local environment to address soil erosion. explain different ways of conserving soil and water.	Resource person. Text books Internet. Statistical data. Flyers and pamphlets. Media (TV, radio).

	applications; and agriculture applications. **Conservation of soil:** contour ploughing; terrace farming; perimeter runoff control; windbreaks; cover crops; crop rotation; stream bank protection; and conservation agriculture. **SWACAP.** **Skills** Analysis Identification Observation Judgment **Values and Attitudes** Awareness Cooperation Understanding Responsibility. Appreciation of	reduce it. • Teacher and learners discuss various ways of conserving water in their households, commercially, and agriculturally. • Teacher and learners discuss different ways of conserving soil. • Teacher explains SWACAP and its objectives in Lesotho. **CASE STUDIES** 1. When water supplies are adequate, irrigation can increase crop yield dramatically. Different irrigation systems are suited to different soils, climates, crops and resources. There are **three** main types of irrigation systems in Lesotho: surface; overhead; and drip. Learners must undertake a mini-research to find information relating to the	explain the objectives of SWACAP in Lesotho. carry out a case study in an identified area and provide a good report of such a case study.	

	diversity	**three** types of irrigation in relation to: - quality of water needed; - suitable soil; - distribution of water; - suitable climatic conditions; - preparation and maintenance; - field shape; - erosion; - salinity; - fertilization; - needed chemicals to be added; - crop health; - disease; - weeds; and - costs.		
10. appreciate the role of mining industry to Lesotho's economy.	**MINING IN LESOTHO**			
	Concepts Mining. **Mining in Lesotho:** Types and methods of mining. Factors influencing exploitation of diamond mines in Lesotho. Mining operational	• Teacher introduces the concept of mining to learners. • Teacher and learners discuss the history of diamond mining in Lesotho. **Learners:** • use the map of Lesotho to locate diamond mines in	define mining. locate major diamond mines in Lesotho. describe different types of mining, methods of mining and, factors influencing exploitation of diamonds in Lesotho.	Resource person. Flyers. Text books. Internet. DVDs.

	methods and processes. Mining organization or ownership Uses of diamonds Importance's of diamond mines in Lesotho. Importance of sandstones and other rocks quarried in Lesotho. Challenges facing mining in Lesotho: ○ globalization, ○ technology, ○ marketing and ○ sustainability. Results of mining and quarrying on the environment of Lesotho. Ways of restoring and using land after mining and quarrying in Lesotho. **Skills**	Lesotho. • use pictures to illustrate types and methods of mining in Lesotho. • forms groups to identify factors influencing mining in Lesotho. • undertake a research on organizational ownership, uses of diamonds and importance of diamond mines. • investigate the importance of sandstones and other rocks quarried in Lesotho. • investigate impacts of mining on environment and ways of restoring land after mining and quarrying. • describe challenges facing mining in Lesotho. • explain the economic importance of mining activities in Lesotho. **CASE STUDY** 1. Learners must undertake a mini-research to one of the mining areas in Lesotho to identify the following:	state uses of diamonds in Lesotho. describe mining methods used to extract and process diamonds in Lesotho. explain ways in which mines are organized and owned in Lesotho state importance of diamond mines in Lesotho. describe the importance of sandstones and other rocks quarried in Lesotho. analyse results of Mining on the environment. suggest ways of restoring land after mining and quarrying.	Videos. Newspapers.

	Identification. Observation. Critical thinking. Judgement and decision making. Analysis. **Values and attitudes** Responsibility. Cooperation. Awareness. Frugality. Environmental concern.	- area where the mining area is located; - methods of mining used; - minerals mined; - contribution to the Lesotho's economy; - benefits to the people near the mining area; - challenges facing the mine; and - solutions to such challenges.		
11. explain the principles involved in the establishment of the processing and manufacturing industries in Lesotho.	**PROCESSING AND MANUFACTURING INDUSTRIES IN LESOTHO.**			
	Concepts **Types of industries:** processing; and manufacturing. Factors that influence the location of processing and manufacturing industries in Lesotho. Role played by BEDCO and	• Teacher and learners discuss industry. • Teacher and learners revise factors influencing the location of industries. • Teacher and learners revise primary, secondary and tertiary industries. • Teacher and learners discuss industry and types of industries found in Lesotho.	define the term industry correctly. describe factors influencing the establishment of industries. describe primary and secondary industries. differentiate between	Text books. Resource person. Internet. DVDs. Videos. Newspapers.

	LNDC of in the establishment of industries in Lesotho. Importance of manufacturing industries in Lesotho. Problems caused by the development and growth of industries in Lesotho. Industrial estates in Lesotho. Craft industries in Lesotho. Reasons why Basotho fail to start their own industries. **Skills** Identification. Observation. Critical thinking. Judgement and decision making. Analysis. **Values and attitudes** Responsibility. Cooperation.	**Learners:** • differentiate between manufacturing and processing industries. • classify industries into processing and manufacturing. • form groups and discuss factors that influence location of processing and manufacturing industries in Lesotho. • discuss the role played by BEDCO and LNDC in the establishment of industries in Lesotho. • Form groups to discuss the importance and problems caused by the development of industries in Lesotho. • describe problems caused by development and growth of industries in Lesotho. • work in groups to discuss the growth and characteristics of industrial estates in Lesotho. • take a field trip to investigate the nature and	processing and manufacturing industries. classify industries according to processing and manufacturing. distinguish between processing and manufacturing industries. describe factors influencing the location of manufacturing and processing industries. discuss BEDCO`s and LNDC's role in the establishment of industries in Lesotho. outline the importance and problems of manufacturing industries in Lesotho. describe problems caused by development	

	Awareness. Frugality. Environmental concern.	importance of craft industries, and reasons for their development in Lesotho. • do a mini-research to find reasons why many Basotho fail to start their own industries.	and growth of industries in Lesotho. explain the development, characteristics and growth of industrial estates in Lesotho. describe characteristics and importance of craft industries in Lesotho. carry out a research to investigate the nature of and importance of craft industries in Lesotho. carry out a research to find reasons why many Basotho fail to start their own industries.	
12. assess the environmental and socio-economic impact of power production in Lesotho.	**POWER PRODUCTION IN LESOTHO.**			
	Concepts Power Production. Energy. Sources of energy. (renewable and non-renewable)	• Teacher and learners discuss energy and its sources (renewable and non-renewable) • Teacher instructs learners to locate hydroelectric power in Lesotho using	define the term energy. state sources of energy. locate hydroelectric power in Lesotho.	Resource person. Text books. Internet. Flyer.

	Hydroelectric power in Lesotho: - factors influencing the location of hydroelectric power. - benefits and problems of generating hydroelectric power in Lesotho. **Wind power:** factors that influence the location of wind and solar power. benefits and problems of wind and solar power. **Skill** Identification Drawing Analysis Information finding **Values and attitudes** Awareness Appreciation Cooperation Responsibility	information from the map. • Teacher illustrates and explains hydroelectric power production to learners. • Learners research the benefits and problem of HEP in Lesotho and present their findings. **Learners:** • form groups to discuss factors influencing hydroelectric power production in terms of location and production processes. • draw diagrams to illustrate hydro-electric power production. • use internet, textbooks, hand-outs and flyers to find the benefits of hydro-electric power in Lesotho. • use internet, textbooks, hand-outs, and flyers to identify problems caused by hydro-electric power in Lesotho. • Teachers and learners	describe how hydroelectric power is produced in Lesotho. describe the benefits and problems of hydroelectric power in Lesotho. explain generation of wind power. describe factors influencing location and production of wind power. describe benefits and problems of wind power production. describe physical and economic factors influencing the location of wind power. outline benefits and problems of wind power.	Pamphlets. Brochures.

		discuss generation of wind power. • Teachers and learners discuss generation of wind power. **Learners:** • describe physical and economic factors influencing the location and generation of wind power. • illustrate the generation of wind power. • outline the benefits and problems of wind power. • show how wind power can contribute towards the minimum emissions of Green House Gases (GHGs). **CASE STUDIES:** **The management of energy supply.** 1. Learners must study Lesotho's overall electrical energy strategy showing some of the issues of changes in demand for and supply of electricity, in power production and its		

		location, and evaluate the success of the overall strategy.		
13. evaluate the impact of leisure activities and tourism to the economy of Lesotho.	**TOURISM IN LESOTHO.**			
	Concepts Tourism. **Terms used in the tourism industry:** tourism; tourist; tour guide; tour operators; tourist authorities; travel agents; accommodation providers; transport providers; catering outlets; anciliary tourist services. **Tourist attractions in Lesotho:** Maluti Drakensberg Park/Sehlaba-Thebe National Park (World Heritage Site); Maletsunyane/ Lebihan falls;	• Teachers gives thorough definitions of terms used in the tourism industry. • Learners use different sources of information to identify tourist attractions in Lesotho. • Learners classify tourist attractions in Lesotho in terms of: - Historical; - Physical; and - human made features. **Learners:** • describe the roles that the stakeholders (Government, NGO's, Private sector, local Authorities and local communities) play to develop the tourist sector/industry. • evaluate the stakeholders'	name tourist attractions in Lesotho. classify tourist attractions into historical, physical and human made features. describe roles played by different stakeholders to promote tourism in Lesotho. explain problems facing the development of the tourist industry in Lesotho and possible solutions. state advantages and disadvantages of the tourist industry on areas that receive tourists.	Internet. Media. DVDs. Charts. Flyers from LTDC. LTDC Personnel.

	Ketane falls; **Northern Parks:** Tsehlanyane National Park; Bokong Natural Heritage; Liphofung Nature Reserve. **Other tourist attractions:** Mahlasela Skiing slopes; Katse and Mohale dams; Thaba-Bosiu; Kome caves; Subeng and Moyeni Dinosaur footprints; and Letša la Letsie. **Classification of tourist attractions:** man-made; natural; physical; human; historical; and cultural.	role (Government, Local community, NGOs and the Private sector) in the development of tourism in Lesotho. • analyse the problems (e.g. lack of transport, lack of marketing) facing the development of the tourist industry in Lesotho and suggest possible solutions to them. • discuss the advantages and disadvantages of the tourist industry on areas that receive tourists. **CASE STUDY:** 1. Learners must study one tourist area or resort in Lesotho, its growth and development, showing the issues of sustainability it faces and evaluating the impacts of tourism on the destination's environment(s), society and economy. Subsequently, provide a		

	Roles of stakeholders in promoting tourism in Lesotho: government; local authorities; NGOs; local communities; private sector; international agencies. **Problems facing the development of the tourist industry in Lesotho:** physical; social; and economic. Advantages and disadvantages of tourists. **Skill** Identification. Drawing. Analysis. Information finding. **Values and attitudes** Awareness. Appreciation.	written report of their research.		

	Cooperation. Responsibility.			

SETTLEMENT, POPULATION AND MIGRATION

Learning outcomes: **at the end of the syllabus, learners should be able to:**	**Concepts, Skills, Values and Attitudes**	**Suggested Learning Experiences**	**Assessment Criteria: the teacher should assess learners' ability to:**	**Resources**
14. assess the dynamic nature of rural settlement in Lesotho.	**RURAL SETTLEMENT.**			
	Concepts Rural settlements. **Structure of the rural settlements:** open fields; mountains; forests; and bushes. **Patterns of rural settlement:** nucleated; linear; and	**Learners:** • describe the rural settlement patterns in Lesotho. • demonstrate different settlements using sketch maps. • identify factors that influence siting, size and growth of rural settlements in Lesotho. • classify settlements by size and function.	draw and name rural settlement patterns in Lesotho. use sketch maps to illustrate different settlement patterns. list factors that influence the siting, size and growth of rural settlements.	Charts. Models. Distribution maps. Internet. Diagrams.

	dispersed. Rural life. Rural people. **Advantages of rural settlements:** - availability of firewood, rangelands and water; - beautiful and healthy natural surroundings; - fresh food; - less pollution; - simple life; - unity; - availability of space and cheap land; privacy; - cheap housing; and - less traffic. **Disadvantages of rural settlements:** - lack of employment opportunities; - unsatisfactory essential facilities such as electricity,	• describe and explain reasons for a settlement hierarchy. • Teacher and learners discuss rural people and their lives. • Learners undertake a mini-research to find advantages and disadvantages of rural settlements. • Teacher and learners discuss characteristics of rural settlement. • Teacher describes classification of settlement by size and function. **CASE STUDY** 1. Learners must do a research to determine the appropriateness of the location of any of the industrial estates found in Lesotho in terms of : - resource materials; - labour; - transport facilities; - markets;	name the functions of different rural settlements. state reasons for different settlement hierarchy.	

	telecommunications, health, transportation, and education. - poor infrastructure; - ignorance of the rules of health and hygiene; and - low levels of education. **Characteristics of rural settlement:** - size of the community; - density of population; - agriculture; - close contact with nature; - Homogeneity of Population; - sparsely populated; - nearness to resources; and - sloppy lands; Reasons for development of rural settlements:	- services; - capital; - community policy; and - preference of entrepreneurs or local communities.		

	Factors influencing siting, size and growth of rural settlements in Lesotho. Physical Socio-economic Classification of settlements by: size; and function. Settlement hierarchy. **Skills** Identification. Observation. Demonstration. Analysis. Judgment. **Values and attitudes** Awareness. Appreciation. Cooperation.			
15. explain and analyse factors influencing population change and its	**POPULATION DYNAMICS**			
	Concepts Population dynamics.	• Teacher and learners discuss population dynamics and the related	discuss population dynamics using appropriate terms.	Statistical charts. Distribution

effect on the environment.	**Terms used in the study of population:** demography. birth rate. death rate. natural increase. Population structures. dependency ration. population growth. population density. population distribution. over population. under population. population explosion. population census. population pressure. population pyramid. migration. emigration. immigration. fertility rate. infant mortality rate. population density. de facto population. de jure population. optimum population.	literature. **Learners:** • explain factors influencing population distribution and density. • explain factors influencing population growth: - birth rate, - fertility rate, - death/mortality rate, - migration (push and pull factors). • analyse and draw conclusions on statistical data on population growth. • analyse and interpret population maps, graphs, diagrams and statistical data. • discuss population structure of Lesotho and South Africa. • explain the significance of age-sex pyramids. • interpret and analyse population pyramids for Lesotho and South Africa. • discuss the impacts of population growth on the economy, environment and	explain factors influencing population distribution and density. explain factors influencing population growth. analyse and interpret statistical data on population dynamics. analyse and interpret population maps, graphs, diagrams and statistical data. explain the significance of age-sex pyramids. outline impacts of population growth on the economy, environment and society in Lesotho. analyse and interpret different population pyramids.	maps. Internet. Projectors. Resource person.

	Factors influencing population distribution and density: human; and physical **Population Structure:** population pyramids. **Links between population growth and development:** changes in infant mortality rate and life expectancy over time. **Skills** Identification Observation Demonstration Evaluation Analysis Judgment **Values and attitudes** Caring Acceptance Responsibility Love	society in Lesotho and South Africa. • compare the factors affecting the growth of population in Lesotho and South Africa. • Teacher provides statistical data on the uneven distribution of population in Lesotho and South Africa for learners to analyse and draw conclusions on. **CASE STUDIES** 1. Learners must do a case study on the distribution of population in Lesotho and South Africa using appropriate data collection and analysis methods.	collect, analyse and report data using appropriate research techniques.	

	Respect Love of country/ Patriotism			
MIGRATION				
16. show understanding of the causes and effects of migration in Lesotho and South Africa.	**Concepts** **MIGRATION:** migration as a component of population change. Movements of populations (excluding all movements of less than one year's duration). **Causes of migration:** push factors, and pull factors, processes of migration (including chain migration) and patterns of migration (including by distance and by age), the role of constraints, obstacles and barriers (e.g. cost,	• Teacher and learners discuss migration as a component of population change. • Teacher and learners discuss different types of population migration using local examples. • Learners brainstorm causes of migration. • Learners explain causes and impacts of migration in Lesotho and South Africa. • In groups, learners investigate and report impacts of migration on migrants, places of origin and destination. • Teacher and learners discuss types of population migration. • Learners use, interpret and analyse tables, graphs, and maps on migration. • Teacher and learners discuss the Lesotho	describe migration as a component of population change. describe different types of migration in Lesotho. state causes and impacts of migration on the country of origin and destination. explain causes and impacts of migration in Lesotho and South Africa. describe impacts of migration on migrants, places of origin and destination. describe different types of migration. use, interpret and	Statistical charts. Graphs. Population maps. Internet. Videos. Posters. Charts. Flyers.

	national borders) in migration. **Types of population migration:** internal; international; rural urban, urban-rural, rural-rural, urban-urban forced; and voluntary. **Problems faced by migrants.** **Impacts of migration on:** place of origin, and destination. Lesotho Government's effort to curb domestic and international migration. **Skill** Identification Drawing Analysis	government's efforts to curb migration.	analyse tables, graphs, and maps on migration. describe the Lesotho government's efforts to curb domestic and international migration.	

	Information finding **Values and attitudes** Awareness Appreciation Cooperation Responsibility			
17. evaluate the socio-economic impact of HIV/AIDS in Lesotho.	**HIV AND AIDS IN LESOTHO**			
	Concepts HIV and AIDS. HIV and AIDS in Lesotho. Transmission of the HIV virus in Lesotho: blood. mother-child. sexual intercourse. Lesotho HIV statistics and prevalence. Socio-economic impact of HIV and AIDS in Lesotho Influence of HIV and AIDS on population structure.	• Teacher invites a resource person to provide learners with relevant information on HIV and AIDS. • Teacher and learners engage on a question and answer session based on issues that arise from expert lecture (resource person). • Teacher and learners discuss HIV and AIDS from a historical perspective, its current status in Lesotho and its future implications. **Learners:** • describe ways in which HIV and AIDS is transmitted in Lesotho.	differentiate between HIV and AIDS. list the ways in which HIV and AIDS spread in Lesotho. describe the transmission of HIV virus in Lesotho. describe Lesotho' HIV statistics and prevalence. outline the socio-economic impacts of HIV and AIDS on the population structure. explain the influence of HIV and AIDS on	Videos. Posters. Charts. Flyers. Resource person. Internet.

	Lesotho's government policy and efforts to combat HIV and AIDS transmission: Legislation to address HIV and AIDS in Lesotho; Universal HIV and AIDS testing; Antiretroviral therapy; The National AIDS Prevention and Control Programme; The Multi-Sectoral National AIDS Strategic Plan; The Lesotho AIDS Programme Coordinating Authority (LAPCA); and The National AIDS Commission. The role of NGOs to address HIV and AIDS transmission in Lesotho: UNICEF; PSI; and	• describe ways in which the spread of HIV and AIDS can be controlled in Lesotho. • interpret Lesotho's HIV and AIDS statistical data and suggest its socio-economic impacts. • evaluate the Lesotho's government efforts to curb the spread of HIV and AIDS. • identify individual, family, and community resources that provide HIV and AIDS information and help. • describe how HIV and AIDS is both a personal and social issue. • Teacher describes how HIV and AIDS impairs the immune system. • Teacher and learners clarify the difference between HIV and AIDS. • Teacher explains how HIV and AIDS is a major public health concern in Lesotho.	population structure. give an explanatory account on efforts taken by Lesotho Government and other stakeholders to address the HIV and AIDS problem. describe the role of NGOs to address HIV and AIDS in Lesotho. explain how Lesotho adopts the 5Cs' approach in delivering HIV testing services.	

	EGPAF. **Public Health and Human Rights Based Approach to deliver HIV testing services in Lesotho:** **The 5Cs:** ○ consent; ○ confidentiality; ○ counselling; ○ correct; and ○ connection. **Skills** Advocacy. Assertiveness. Decision-making. Effective communication. Peer resistance. Resilience. Relationship management. Self-management. Interpersonal. Versatility. **Values and Attitudes** Self-control. Self-esteem.	• Teacher explains the public health and human rights based approach to deliver HIV testing services in Lesotho. • Teacher and learners discuss ways in which the 5Cs are adopted in delivering HIV testing services in Lesotho. **Learners:** • produce a value survey that will facilitate communication with teachers, parents, guardians, and caregivers on issues relating to HIV and AIDS.		

	Awareness. Respect. Love of one another. Caring and sharing. Empathy. Respect for human dignity. Acceptance. Fortitude. Supportiveness.			

BASIC TECHNIQUES AND INQUIRY SKILLS

Learning outcomes: at the end of Grade 9, given topographic maps from the SADC region on the scale of 1:50 000 and 1:25 000 with full keys, learners should be able to:	**Concepts, Skills, Values and Attitudes**	**Suggested Learning Experiences**	**Assessment Criteria: the teacher should assess learner's ability to:**	**Resources**
18. read and interpret topographic maps from the SADC region on the scale of 1:50 000 and 1: 25 000.	**MAP WORK**			
	Concepts **Map:** - types of maps. **Basic cartographic skills:** - map title; - key; and - scales; Measurement of distance	• Teachers describes a map. • Teacher introduces learners to different types of maps. • Teacher introduces learners to basic principles and techniques of map reading. • Learners draw sketch maps to show relative location and spatial distribution. • Learners draw maps to illustrate geographical features using map	describe a map. state different types of maps. read and interpret conventional symbols used in the map accurately. draw sketch maps to	Charts. Map reading.

	and area. Direction and bearing. Coordinates reference system. Grid references. Map enlargement and reduction. **Photographs:** - ground; - aerial; and - satellite images. **Skills** Identification. Observation. Accuracy. Analysis. Interpretation. Judgement. Decision making. **Values and attitudes** Appreciation. Awareness. Cooperation/team work.	symbols. **Under the guidance of a teacher, learners:** • identify characteristics of a map (key, scale, and direction). • use a scale to measure distance, calculate area and gradient. • use instruments to measure distance and calculate bearing. • give direction in terms of the 16 points of the compass and compass bearing. • read and interpret conventional symbols. • reduce and enlarge a section of the map. • locate features on a map using a co-ordinate reference system and four and six figure grid references. • measure distance and calculate area using scale. • identify and interpret ground, air photographs and satellite images.	show relative location and spatial distribution. reduce and enlarge sections of maps. state characteristics of a map. draw maps to show geographical features using symbols. locate places using 4 & 6 figure grid references. measure distance and calculate area using scale. use instruments to measure distance and calculate bearing. give direction in terms of 16 points compass and the compass bearing. locate places and features on a map using a co-ordinate reference system	

			and 4 & 6 figure grid references. interpret ground, aerial and satellite images.	
19. apply research skills to geographical information.	**INQUIRY AND PRESENTATION SKILLS**			
	Concepts **Inquiry and presentation skills.** **Types of data:** - primary; and - secondary. **Data collection methods**: observation; counts; case study; focused groups; and projective techniques. **Data Interpretation**: - **Qualitative:** o observations; o documents; and o interviews.	• Teacher introduces inquiry and presentation skills. • Teacher and learners discuss inquiry and presentation skills. • Teacher and learners discuss the primary and secondary types of data using examples. **Learners:** • collect data using observation, counts, case study, focused groups, and projective techniques. • analyse and interpret information using qualitative and quantitative methods of data interpretation. • present qualitative and quantitative data using bar charts, line graphs, pie charts, histograms, and divided bar graphs.	describe inquiry and presentation skills. differentiate between primary and secondary data. collect data using observations, counts, case study, focused groups, and projective techniques. analyse and interpret information using the qualitative and quantitative methods of data interpretation. present qualitative and quantitative data using bar charts, divided bar graphs, line graphs,	Charts. Map reading.

	- **Quantitative:**
	  o Mean;
	  o standard deviation; and
	  o frequency distribution.
	
	Methods of presenting qualitative and quantitative data:
	- bar chart;
	- pie chart;
	- line graphs;
	- divided bar graphs, and histograms.
	
	Skills
	Identification.
	Observation.
	Accuracy.
	Analysis.
	Interpretation.
	Judgement.
	Decision making.
	
	Values and attitudes
	Appreciation.
	Awareness.
	Cooperation/team work.
			pictograms, and pie charts.	

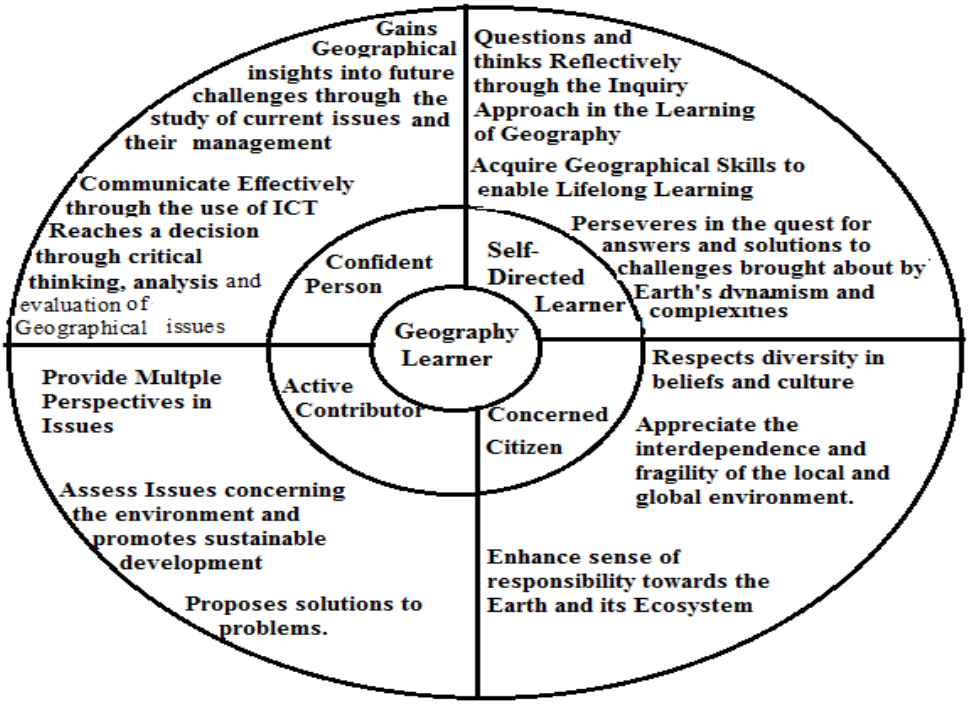
GRADE 9 GEOGRAPHY TEACHER'S GUIDE

THINKING BEHIND THE SYLLABUS AND IMPLEMENTATION.

The following principles were considered in the design of the syllabus:

1. to update knowledge, skills and values so that the syllabus address contemporary issues of global importance while ensuring relevance and connection to the learners in Lesotho;
2. to provide opportunities for Basotho learners to examine current issues through global and local perspectives as informed, concerned and participative citizens;
3. to ensure coherence, continuity and progression in syllabus framework, content and skills from Basic, secondary to pre-university level; and
4. to align the syllabus with the Desired Outcomes of Education in Lesotho, as well as 21st Century Competencies and Outcomes.

FIG. 1 DESIRED OUTCOMES OF LESOTHO'S EDUCATION THROUGH GEOGRAPHY.



1. APPROACHES TO TEACHING THE SYLLABUS

1.1 GENERAL SYSTEM'S APPROACH

The syllabus encourages the application of a General System's Approach for the delivery of the material. This Approach is grounded in the holistic perspectives on the nature of human interaction with their environment. Further, this approach strives to develop the analytical capacity of learners. It implies that topics do not have to be taught in a chronological manner nor as discrete elements and offers the flexibility for issues to be addressed across thematic areas.

The System's Approach allows the inclusion of all the factors involved in a particular topic, and examines their interrelationships and how they work as a whole. It emphasises constant exchange of information between a system and its environment. In that sense, the System's approach views the natural and human environments not as an inventory of elements, but as an interactive process of elements that must be understood in their totality. For example;

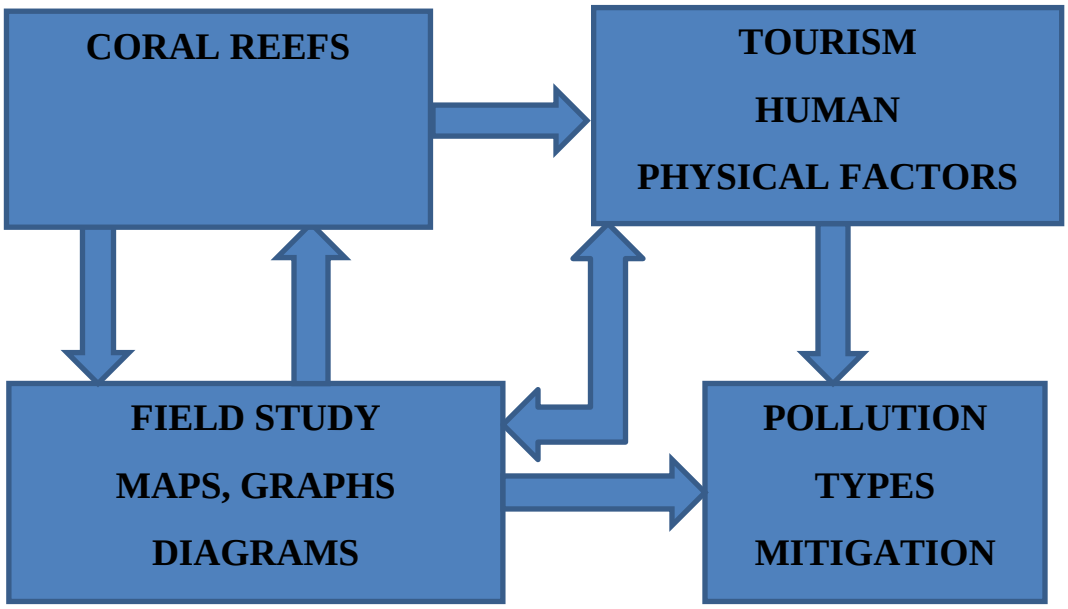


Diagram showing one way in which sample systemic interactions may be organised for teaching.

2. GEOGRAPHICAL INVESTIGATION

2.1 PLANNING FOR FIELDWORK IN THE SCHEME OF WORK

Since the Geographical Investigation (**GI**) builds upon the geographical content, concepts and skills that a learner learns in an issue, teachers are strongly encouraged to carry out the **GI** only after the specific issue has been taught in class. This is necessary as most secondary learners are new to Geography and would need to have exposure to the discipline before embarking on the **GI**.

Teachers are advised to carry out **GI** after the first issue has been completed. This is to ensure that **GI** is not implemented too close to the period when learners are preparing for their end of term Assessment.

Schools should note that data collection in the field is planned thus need to be allocated a slot in time table. Similarly, the fieldwork is planned as well.

Time-tabling to further support the carrying out of fieldwork, it would be good practice for schools to schedule two Geography periods as the last periods of the day. Teachers will then be able to extend the duration of the periods and conduct fieldwork at sites farther away from the school.

Teachers could engage the help of other members of their department as **chaperones** for the fieldtrips. Good scaffolding can be designed to support learners' learning. However, it is recommended that at least one Geography teacher be present to address learners' questions during the **GI.**

When planning for data collection in the field, schools can consider leveraging on existing field trips, such as Learning Journeys, or organising inter-disciplinary field trips. However, it is crucial that schools keep sight of the design of **GI** and maintain the integrity of the **GI** learning experience in undertaking such initiatives. Leaners need to develop an understanding of the discipline, gain conceptual understanding and be immersed in the inquiry process. For example, learners should be given the opportunity to perform their **GI** tasks separately from the National Education task while on site during the Learning Journey. The field trip will also need to be planned very carefully to ensure that it is held at an appropriate time during the inquiry process.

Schools can also involve parents and alumni as chaperones, together with teachers. This strategy has the added advantage of building a stronger school community

through fostering relationships between stakeholders, and deepening stakeholders' engagement with the school.

3. GEOGRAPHICAL INQUIRY

A geographical inquiry approach provides learners with the opportunity to 'ask relevant questions, to pose and define problems, to plan what to do and how to research, to predict outcomes and anticipate consequences, and to test conclusions and improve ideas**.**

3.1 Geographical Inquiry Process

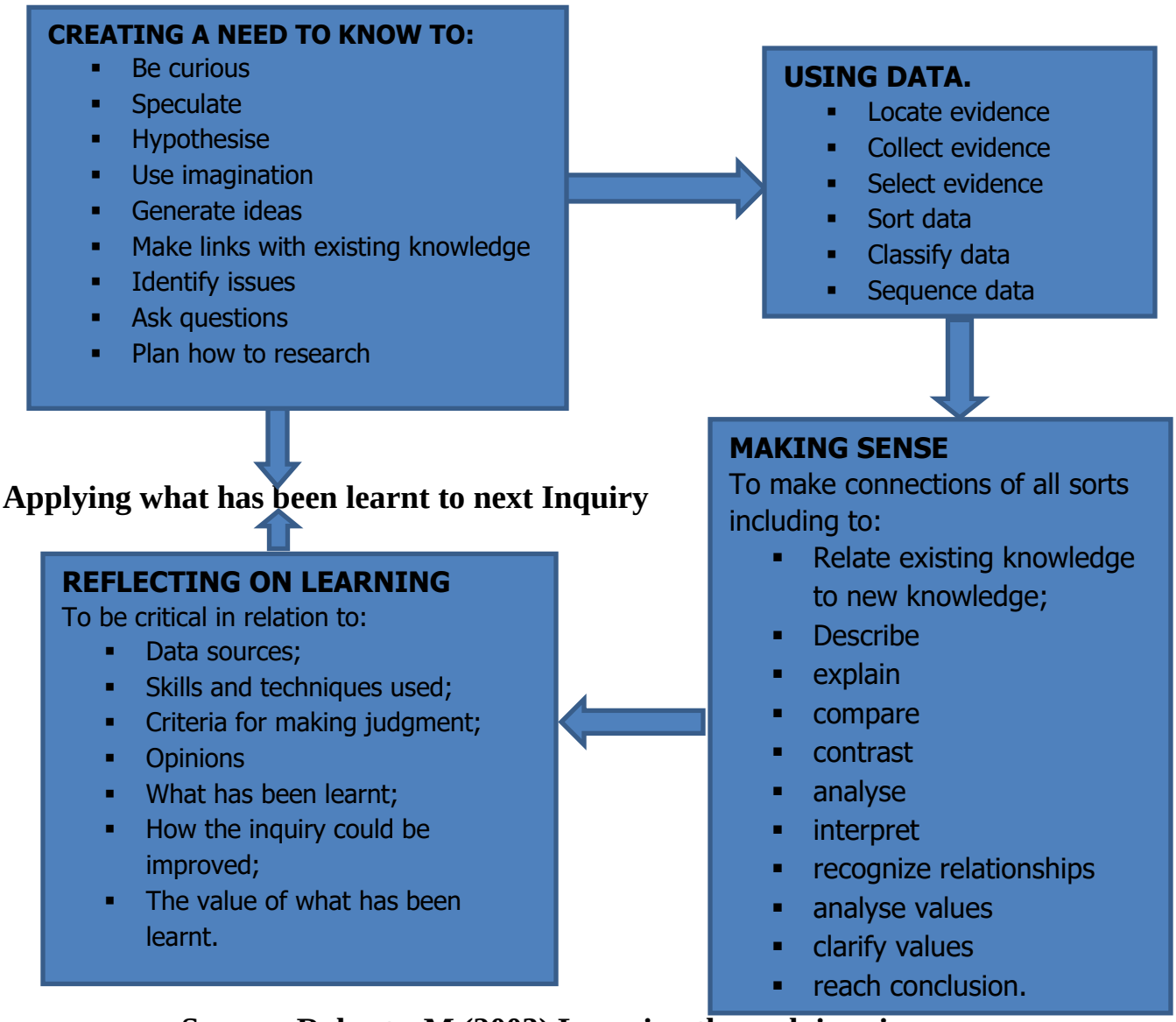
An inquiry approach to the teaching and learning of Geography is a contemporary and timely paradigm shift in a continuous effort to move away from the mere memorisation of information to the comprehension, extraction and application of information from a variety of sources to construct new knowledge and understanding. It serves to empower learners in their own learning and stimulate an interest in the subject.

The framework for learning through inquiry begins with sparking curiosity through the use of stimulus materials to challenge learners' assumptions and habitual responses and invite posing of questions. Thereafter through library research and fieldwork, geographical data is gathered. As learners systematically organise the information they have collected, they will need to exercise sound reasoning to analyse and make connections between the pieces of information they have, and thereby construct new knowledge for themselves.

They will be doing the following:

- Learning through enquiry: Making Sense of Geography;
- Sparking Curiosity (Formulate guiding questions);
- Gathering Data (Identify & locate relevant data)
- Exercising Reasoning (Interpret and analyse geographical data; present findings and analysis)
- Reflective Thinking (Evaluate and improve on data collection and analysis).

GEOGRAPHICAL INQUIRY PROCESS



Source: Roberts, M (2003) Learning through inquiry

4. INQUIRY AND PRESENTATION SKILLS

Learners should be made aware of the general requirements for this part of the Geography syllabus. References should be made to a range of inputs involved in a geographical enquiry, such as, formulating aims and hypotheses, using enquiry skills to collect data, using illustrative techniques to present data, making analyses of data and forming conclusions. An introduction to this part of the syllabus could be made by choosing a detailed study at an appropriate stage after the teaching of a specific topic from any of the syllabus themes. Each topic which is selected for geographical enquiry should enable a significant range of the skills to be considered in depth.

Learners need to be taught how to carry out investigations thus it is recommended that these skills form part of the teaching programme rather than being taught in isolation. They can be illustrated through practical exercises, integrated with the learning content as various topics are taught.

4.1 DATA COLLECTION

An understanding of the methods required for data collection should be developed. For some topics it may be possible for learners to have an opportunity to gain some experience, however limited, of the practical aspects involved in data collection. A questionnaire could be a possible example and, depending on the location of a centre, recording data on a form for a pedestrian or a traffic count. This would also give opportunities for using different sampling techniques.

4.2 FIELD EXERCISES

Consideration should be given to actual field exercises where enquiry skills may be used to obtain different types of data. In such cases the inter-relationships of phenomena could provide the basis for a study. Pedestrian counts, traffic counts and observation on land-use could, for example, provide the basis for a topic involving a study of competition for space in an urban area or changes in rural land-use (types of farming, afforestation, crops, roads, buildings, water storage and supply).

4.3 ILLUSTRATIVE TECHNIQUES

A knowledge of illustrative techniques to present data across topics is required. This should include for example, various types of graphs, maps and diagrams: line graphs, bar graphs, divided bar graphs, histograms, flow diagrams and scatter graphs.

4.4 ENQUIRY SKILLS

The paper 1 of this syllabus will test knowledge and application of the methodology used in the following types of enquiry skills in field work. Methods used to process and to present data obtained by these enquiry skills will also be assessed.

4.5 QUESTIONNAIRE

Reference should be made to the topics across the themes in the syllabus for which a questionnaire would be suitable. Consideration should be given to factors such as the following:

- oral or written questionnaires,
- layout of a questionnaire,
- format such as the wording of questions,
- lengths of questions, number of questions,
- location and times to conduct a questionnaire,
- sampling methods and
- the size of sample and the importance of a pilot survey.

Syllabus themes for which questionnaires would be a suitable technique, include spheres of influence, the use of services, shopping habits, a farm study, a factory or industrial study, leisure activities, tourism and the attitudes of the public to developments associated with particular resources. Studies should also include the use of questionnaires to obtain information from an individual or a small group of individuals relating to a particular topic and purpose. With reference to items in the Syllabus this could include pedestrians, motorists, shopkeepers, farmers and hotel owners.

4.6 OBSERVATION

Consideration should be given to syllabus themes which would be relevant for the use of observations needed as the enquiry skill for data collection. Observations based on the inter- relationship of physical and human aspects in a suitable area would be appropriate for topics such as a study of weather change from season to season and how it affects human activity or how slopes can affect natural vegetation or agricultural land-use, agricultural land-uses in a limited area, the lay-out of a farm, selected characteristics of a tourist resort, or the competing demands for supplies of water in a locality, land use in urban areas such as lay-out, types of buildings, characteristics of

the Central Business District (CBD), comparative studies of shopping centres including size, range of services and accessibility. As with the other enquiry skills observations of phenomena should also be linked to aims and hypotheses, to the collection, presentation and analysis of data. Methods to record data collection such as maps and record sheets should be considered as well as the use of sampling methods where appropriate.

4.7 COUNTS

Pedestrian and traffic counts, especially for studies in urban areas, are two significant types but references should also be made to other aspects in the syllabus where counts are possible. Leisure activities and aspects of tourism are particular examples. Studies should include the wording and interpretation of aims and hypotheses relevant to the circumstances in which a particular count may take place. Appropriate methods for the collection of data including, for example, instructions to recorders relating to the collection and type of data should be known. Consideration should be given to the different ways in which data can be represented in various circumstances, such as isoline maps, flow diagrams and scatter graphs. In the collection of data for pedestrian counts, reference should be made to the comparative value of static and moving counts. Studies should also involve analysing and arriving at conclusions from data collection in relation to the aim or aims of a study.

4.8 MEASUREMENT TECHNIQUES

River studies should include the methods used and the equipment required to measure the width and depth across the river channel, the gradient of a river's course, the speed of flow, changes in depth over a short period of time and the size and shape of the bedload. Analysis of measurements such as the speed of flow, cross-sectional area of a river channel and discharge should be included.

Beach studies should include methods used and the equipment required to describe and analyse the profile of a beach, the size and shape of pebbles, the movement of beach material and the direction of the waves. For both river studies and beach studies a knowledge of the equipment is required including, for example, quadrats for selecting pebbles on a beach, a clinometer to determine angle of slope and a pebbleometer or ruler and callipers to measure pebbles. As in studies involving other enquiry skills, consideration should be given to illustrative techniques to present data and analysis of data. Studies should also include evidence of the application of knowledge and understanding of the formation of features for which data is collected.

Methods used at a weather station to record the weather using observation and instruments should be studied. Consideration should be given to recording temperatures, humidity, precipitation, wind strength including application of the Beaufort scale, wind direction, atmospheric pressure, sunshine, cloud amount and cloud type. Factors such as the locations for instruments and the methods used to take recordings should be included. Learners should be able to plan a record sheet to show recordings over a number of days, and also construction of temperature graphs and wind roses to show specific information. In order to deduce the pattern of weather shown, local studies involving weather should provide a useful foundation especially if the practical aspects of data collection are included.

COMMAND WORDS

This list shows command words that could be used in the Lesotho General Certificate of Secondary Education Geography Question Papers and examinations. While it shows the command words most likely to be used, it is not intended to be definitive and additional command words may be used in examinations where appropriate.

Command Words	Definition
Account (for)	Give an explanation / reasons for. The matter being questioned may be complex and some clarification and description may be needed to reason why something happens in the way that it does
Analyse	Separate information into components and identify their characteristics
Annotate	Add labels, brief comments or notes to a diagram, photograph or map to aid description or explanation. Often used on landform formation questions, e.g. 'use **only** an annotated diagram or diagrams.'
Apply	Put into effect in a recognised way
Argue	Present a reasoned case

Assess	Consider the evidence presented and come to a reasoned judgement / make an informed judgement.
By how much? (did X increase)	Give the required figure/amount usually by reading data from a graph/table/figure
Calculate	Work out a numerical answer / work out the value of something
Choose (correct word)	Select an option from one or more items
Comment	Present an informed opinion/say what you think about an issue.
Compare	Describe the similarities **and** differences of at least two things, e.g. by using comparative words such as 'it has similar height to', 'larger than', 'faster flowing than' or 'more vegetation than.' Identify similarities.
Complete (graph/sentence/table/Factfile/isoline…)	To fill in gaps or details in a diagram, table or cloze exercise to show understanding. Finish a task by adding to given information.
Consider	Review and respond to given information
Contrast (one thing with another)	Point out the differences between at least two phenomena. (Does not require coverage of similarities.) Identify differences.
Criticise	Use evidence to support your opinion or judgement about something / assess worth against explicit expectations
Debate	Present different perspectives on an

	issue
Deduce	Draw conclusions from information provided
Define	Give the meaning of a word, phrase or concept; sometimes framed as 'What is meant by / what is the meaning of…?' / specify meaning
Describe	Give the main characteristics of something or an account in words of a phenomenon which may be an entity, an event, a feature, a pattern, a distribution or a process. For example, if describing a landform say what it looks like, give some indication of size or scale, what it is made of, and where it is in relation to something else (field relationship). Set out characteristics /'what are the features of…"
Develop	Take forward or build upon given information
Discuss (using a case study)	Bring forward the important points of or set out both sides of an argument, for and against, and come to a conclusion. There should be some evidence of balance, though not necessarily of equal weighting. (Where use of a case study is expected, then specifics from the case study should be given to support the important points.) Present key points.
Distinguish between	Make clear the difference between two ideas/concepts (that perhaps can also relate to a choice, e.g. between hard or soft engineering)
Draw (a sketch/sketch map, labelled	Sketch a map or diagram/add lines to

diagram, lines to link, best fit line, etc.)	link words to definitions or statements/add a best fit line to graph
Estimate	Give an approximate value / assign an approximate value
Evaluate	Pick out good and bad points and make judgements / judge from available evidence
Examine	Investigate closely
Explain (how / why / advantages & disadvantages / difference between X & Y / reasons for a stated opinion, etc.)	Give reasons **why** something happens. Answers should set out the causes of a phenomenon and/or the factors which influence its form/nature. This usually requires an understanding of processes. Explanation is a higher-level skill than description and this is often reflected in its greater mark weighting. Set out purposes or reasons.
Explore	Investigate without preconceptions about the outcome
Give	An alternative to 'Identify/Name/State' usually requiring students to supply a basic straight forward, possibly single word, response, e.g. 'give the 4-figure grid reference for…' Produce an answer from recall.
Give your views	Equivalent to 'comment on' - say what you think about an issue/topic
How (many/does/much…)	Describe/what methods are involved
Identify	Similar to 'Give/Name/state', which require candidates to answer briefly and are usually only worth 1 mark, e.g. for a question asking candidates to select one item or idea from a range of information

	provided. Name or otherwise characterise.
Illustrate	Use specific examples or diagrams to clarify your points / present clarifying examples
Interpret	Translate information into recognisable form
Justify	Give reasons for offering an opinion or reaching a conclusion / support a case with evidence
Label	Add to a diagram, image or graphic word(s) or phrase(s) to identify or describe features shown
List	Give individual features/items (proper sentences or continuous prose not required)
Locate	Indicate or mark the position of something on a sketch, diagram or map
Mark position (on map)	Indicate with x or other appropriate label the required location/feature
Mark with an arrow & label	Draw an arrow pointing at feature and add appropriate word identifying feature. The arrow should clearly touch the feature identified.
Match	Link up connected items
Measure	Work out distance using given scale
Name	An alternative to 'Give/Identify/State' – answers are usually expected to give a specific example of something, e.g. 'Name one type of sea defence.'

Outline (one way/why)	Provide a brief account of relevant information/summarise the main points of something. (Intermediate term between 'State' and 'Describe'). Set out main characteristics.
Plot (data on graph)	Indicate as appropriate the location on a graph of specific data
Prove	Demonstrate validity on the basis of evidence
Recommend	Give advice on the best option, based on an evaluation of their respective merits
Relate	Demonstrate connections between items
Review	Survey information
Shade	Add appropriate colour/shading to graph or map according to the key
Show (using an example)	Give evidence to support a statement/opinion
Sketch	Provide a simple / outline drawing of the required feature/area
State	An alternative to 'Give/Identify/Name' usually requiring students to supply a basic straightforward, possibly single word, response. Express in clear terms.
Study	Examine carefully
Suggest (why/give reasons for)	Similar to 'Explain' but sometimes there are varying reasons why something

	happens and there is not necessarily a right or wrong answer. More than one reason should be given (e.g. a farmer will grow a crop for a number of reasons; these could be physical or human). Used in questions based on application of Knowledge & Understanding in unfamiliar contexts – asking students to indicate reasons for something based on data given but which they would not necessarily have studied. Present a possible case.
Summarise	Give the main points briefly / present principal points without detail
Tick	Indicate with a tick the true or false/correct statement(s) / box(es)
To what extent	Judge the importance of/success of
Use a case study/ies, an example, evidence to describe	Answers must use specific precise material and information from the student's case study
Using Figure(s) to complete, to describe, to explain, to give evidence to support, to suggest why, to label, to suggest a link between X & Y…	Candidates should be able to score full marks using only evidence or material from the resource
Use key phrases to write a description / explanation of process or phenomenon	Write a continuous prose answer incorporating the words or phrases listed
Use map evidence to describe, to explain, to complete table	Answers must use specific reference to features evident on map
Using Figure X and your own knowledge…	Candidates should use both evidence and material from the resource and their own knowledge
What is the meaning of (word/phrase) /	State the precise meaning of a term or

What does (word/phrase) mean..?	concept. There is usually a low tariff of marks for this.
What is the relationship between x and y?	Give example(s) of links between two resources (e.g. table and graph)/ two sets of data/two figures
With the help of a diagram	The answer should consist of both prose and a diagram to address the question
With the help of Figure X/case study	Answers should explicitly refer to specifics in the given figure or case study exemplar
Why is…?	Set out the causes of a phenomenon and/or the factors which influence its form/nature. This usually requires an understanding of processes. Explanation is a higher-level skill than description and this is often reflected in its greater mark weighting.
Write the correct (type/word/phrase) in the box	Add phrase to answer box from list provided

Learning Outcomes: at the end of Grade 9, learners should be able to:	Advice and Additional information for teachers
PLATE TECTONICS.	
L.O. 1. demonstrate geographic understanding of the composition of the Earth, Earthquakes and volcanism.	The teacher should ensure that thickness of layers of the Earth vary.
RIVER PROCESSES AND RESULTING LANDFORMS.	
L.O. 3.develop an appreciation for sustainable utilisation and management of water as resource in Lesotho and the SADC region.	It is very important for teachers to note that river processes can occur at different stages of the river profile. Teacher should make learners aware of the stages where each process is dominant.
GLOBAL CLIMATE CHANGE	
L.O 7. explain causes of global warming in Lesotho and the SADC region.	The teacher should show learners the difference between ozone ($O_{3)}$ and the ozone layer so that they don't confuse the two.

L.O. 9: describe the value/importance of irrigation and soil conservation in Lesotho and South Africa.

ASPECT	SURFACE IRRIGATION	OVERHEAD IRRIGATION	DRIP IRRIGATION
Irrigation WUE	55%	75%	90%
Water quality needed	Suitable for water with sediments loads too high for overhead or drip.	Water quality should be potable to remain safe for people and animals.	Recycled, non-potable water can be safely used.
Soil	Not suited to highly sandy soils with high infiltration.	Suited to any soils.	Suited to any soils.
Water distribution	Uniform but uncontrolled	Can be patchy	Uniform and controllable
Climate	Suited to areas with unlimited water and little wind	Suited to areas with unlimited water and little wind	Suited to water-limited areas, where wind may contribute to high evaporation
Preparation and maintenance	Little know-how required, requires labour intensive field levelling and digging.	Requires know-how, little field levelling, maintenance of pipes needed.	Requires know-how, no field levelling, maintenance of pipes and filtration to prevent clogging needed.

Field shape	Any shape.	Often determined by sprinkler, e.g. pivots.	Any shape.
Erosion	Soils vulnerable to floods and erosion.	Soils easily eroded if water pools.	Soil erosion minimized.
Salinity	Soil salinization may occur due to capillary action drawing up salts from below to the wetted soil above.	As for surface irrigation but salts may be leached out of rooting zone easier.	Salinity problems may occur at wetting front if system is not flushed periodically.
Fertilization	Not suited to fertigation.	Soil can be fertigated but involves nutrient wastage.	Soil can be fertigated without wastage.
Chemicals added	No limitation on type of fertilizers and biocides	No limitation on type of fertilizers and biocides	Need to choose fertilizers and biocides that do not require surface wetting
Crop health	Germination generally not limited by water.	Germination generally not limited by water.	Germination may be limited water only occurring in the wetted area.
Diseases	Foliage remains dry and less susceptible to fungal disease.	Foliage gets wet and encourages disease in some crops.	Foliage remains dry and less susceptible to fungal disease.

Weeds	Weeds get as much water as crop.	Weeds get as much water as crop.	Weeds minimized as water targets crop.
Costs	Lowest cost, initially labour intensive.	High investment costs, and relatively high labour and energy costs to maintain.	Generally has highest investment and replacement costs (plastic degrades in the sun or may be attacked by rodents), but lower labour and energy costs.