



REPUBLIC OF BOTSWANA

**BOTSWANA GENERAL CERTIFICATE
OF
SECONDARY EDUCATION**

TEACHING SYLLABUS

GEOGRAPHY

Ministry of Education
Department of Curriculum Development and Evaluation

FOREWORD

The Ministry of Education is pleased to authorise the publication of this senior secondary syllabus which marks a watershed in the development of the public education system in Botswana and signals another milestone of progress in fulfilment of the goals set by the Revised National Policy on Education, Government Paper No. 2 of 1994.

In this era of widespread and rapid technological change and an increasingly inter-dependent global economy, it is essential that all countries foster human resources by preparing children adequately for their future. Survival in the coming millennium will depend on the ability to accommodate change and to adapt to environmental needs and emerging socio-economic trends. It is the wish of government to prepare Botswana for future growth and adaptation to ongoing change in the socio-economic context; specifically the transition from an agro-based economy to the more broadly based industrial economy which we are aiming at.

The senior secondary programme builds on the Ten Year Basic Education programme and seeks to provide quality learning experiences. It aims to prepare our students for the world of work, further education and lifelong learning. However, secondary education must also pay attention to the all round development of the individual. It should provide not only for the acquisition of those skills needed for economic, scientific

and technological advancement. It should also provide for the development of cultural and national identity and the inculcation of attitudes and values which nurture respect for one's self and for others.

Critical to the success of our secondary education programme is the recognition of individual talents, needs and learning styles. Hence, the role of the teacher in the classroom has changed. S/he must be a proficient manager and facilitator; a director of learning activities. S/he should be conscious of students' needs to take on board a measure of accountability and responsibility for their own learning. S/he must also take into account the widening range of ability of the student body and the different levels of achievement which they aspire to. This means active participation for all and the creation of rich and diverse learning environments.

It is important then that we value the students' own experiences, build upon what they know and reward them for positive achievement. At the same time, we must be prepared to offer them guidance and counselling at all levels; assisting them to make the best decisions in keeping with their own interests, career prospects and preferences. In that way we shall prevail in nurturing at the roots of our system, the

national ideals of democracy, development, self-reliance, unity and social harmony.

This syllabus document is the outcome of a great deal of professional consultation and collaboration. On behalf of the Ministry, I wish to record my appreciation and thank sincerely those who contributed to and were involved in the production of this syllabus.



P. T. Ramatsui
Permanent Secretary
Ministry of Education

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A. Introduction

This syllabus is a two-year course designed to meet the needs of candidates studying Geography in preparation for the Botswana General Certificate of Secondary Education (BGCSE). The syllabus builds upon the foundation laid by Social Studies in the ten-year Basic Education Programme. It addresses mainly issues and concerns in Botswana.

The syllabus is organised in modules, which are sub-divided into topics. The scope and content of each topic is presented as general and specific objectives. These objectives also define the skills which the learners are expected to have acquired after completing the programme. The sequence of the specific objectives has been loosely arranged to allow teachers to re-arrange them to suit their own individual preferences.

This syllabus contains a coursework element. Consistent with the Revised National Policy on Education (RNPE 1994), there has been a deliberate attempt to infuse emerging issues pertaining to environmental education, population and family life education, HIV/AIDS awareness and gender sensitivity into the syllabus.

B. Time Allocation

The time allocation assumed in this syllabus is based on a school timetable of 40 periods of 40 minutes each per week. Four (4) periods of forty (40) minutes each will be allocated for Geography. The total Geography time for two years will be approximately 190 hours. Approximately 20% of the time should be used for coursework.

C. Rationale

Geography is an important subject in the Botswana Senior Secondary School curriculum in that it enables learners to study the physical and human environment. It is a multi-disciplinary science that deals with the description and explanation of land, sea, atmospheric processes, fauna and flora and the interaction between human beings and their environment. It develops in the learner a sense of sustainable utilisation of the earth's resources making the learner sensitive to environmental issues.

In studying Geography, learners are exposed to the social and physical realities of the world they live in. They do not only develop environmental ethics, but also an understanding of various geographical principles and concepts. In addition they understand and appreciate the spatial distribution of phenomena on the earth's surface.

Geography is a skills' based discipline that encourages practical work. Through fieldwork, learners observe, collect, analyse, interpret and present data. In the process they acquire such skills as graphicacy, problem solving, critical thinking and interpersonal skills. These are transferable skills which learners can use in their every day life and in the world of work. Furthermore, learners are exposed to emerging issues such as population dynamics, gender issues and effects of pandemics including HIV/ AIDS.

D. Aims of Senior Secondary Programme

On completion of the two-year secondary programme learners should have: -

- 1. acquired knowledge, developed confidence and ability to assess their personal strengths and weaknesses and be realistic in choosing appropriate career/employment opportunities and/or further education and training.**
- 2. developed skills to assist them in solving technical and technological problems as they relate to day-to-day life situations.**
- 3. developed desirable attitudes and behavioural patterns in interacting with the environment in a manner that is protective, preserving and nurturing.**
- 4. acquired attitudes and values, developed basic skills and understanding to allow for execution of rights and responsibilities as good citizens of Botswana and the world.**
- 5. developed information technology skills as well as an understanding and appreciation of their influence in day-to-day activities.**
- 6. acquired knowledge, attitudes and practices that will ensure good family and health practices, including awareness and management of epidemics (such as HIV/AIDS), that prepare them for productive life.**
- 7. developed pre-vocational knowledge and manipulative skills that will enable them to apply content learnt and attitudes and values developed to practical life situations in the world of work.**

8. developed an understanding of and acquired basic skills in business, everyday commercial transactions and entrepreneurship.
9. developed foundation skills such as problem solving, critical thinking, communication, inquiry, team work / interpersonal skills to help them to be productive and adaptive to survive in a changing environment.
10. Developed study skills acquired for further study and training.

E. Aims of Senior Secondary Geography

On completion of the two year Senior Secondary School Geography; learners should have;

1. developed a sense of place and an understanding of relative location on local, regional and global scale.
2. acquired an understanding of the major concepts used in the Geography.
3. acquired knowledge and understanding of a range of physical and human processes and their development in Botswana, regionally and globally.
4. developed an understanding of contemporary social, economic and environmental issues in Botswana and the world.
5. acquired an understanding of cultures of different communities within Botswana society and elsewhere in the world.
6. acquired a range of information processing skills, such as observation, data collection, analysis, interpretation and presentation through practical work.
7. developed skills of communication; oracy, literacy, numeracy and graphicacy.
8. developed an awareness in the use of Information Technology for interpreting geographical processes.
9. developed an appreciation of the significance of positive human attitudes and values on the management of the environment and land use.
10. developed an awareness and an appreciation of the dynamic nature of Geography.
11. developed a sense of geographical location and spatial organisation
12. developed an appreciation of the environment to enable them to act in an informed and responsible manner.

F. Recommended Teaching Methods

In line with the Curriculum Blue print, the syllabus encourages a learner centred approach. This involves placing emphasis on such skills as problem solving, inquiry and hands on experiences aimed at increasing learner participation. The child centred approach aims at improving performance in all learners in Botswana including those with special needs and different abilities. This means that

teachers should use a variety of action oriented teaching methods such as project work, fieldwork, group discussions, pair work, class presentations and computer guided learning. Maps, diagrams, sketches, samples, statistical data and many others should be used to explain and illustrate different geographical processes and concepts.

The success of a learner-centred approach to teaching depends on thorough planning. Adequate planning for instance, must precede field work. In addition, the Geography lessons should be made interesting and relate to everyday life experiences of Botswana. Where possible, the teacher is advised to start with examples from the area where the school is located then expand outwards to cover Botswana and other countries.

G. Assessment Objectives

Assessment of this Geography syllabus is based on the following objectives:

- i) Knowledge with Understanding**
- ii) Skills development and application**
- iii) Awareness, Evaluation and Decision Making**
- iv) Research Skills and Data Manipulation**

- i) Knowledge with Understanding**

Students should be able to:

- **identify geographical features.**
- **describe geographical processes.**
- **explain geographical processes**
- **define geographical concepts.**
- **account for cause and effect of geographical forces and processes.**
- **discuss similarities and differences in human activities locally, regionally and globally.**

ii) Skills development and application

Students should be able to:

- **interpret maps and diagrams.**
- **use basic quantitative techniques**
- **analyse geographical information**
- **extract information from maps, graphs, tables, cartoons, diagrams and computer.**
- **illustrate concepts using simple labelled diagrams.**
- **infer future trends and consequences related to socio-geographical interact.**

iii) Awareness, Evaluation and Decision Making

Students should be able to:

- **recognise the importance of resources and their sustainable use.**
- **demonstrate an awareness in using information technology for presentation and organisation of geographical information.**
- **be aware of different cultures and how they interact with the environment.**
- **propose, justify and evaluate solutions to environmental and socio-geographic problems.**
- **evaluate the role of decision-making and the values and perceptions of stake-holders in the evolution of patterns in human geography.**

iv) Research Skills and Data Manipulation

Students will be expected to demonstrate the ability to:

- **formulate a research topic.**
- **use suitable techniques for observing, collecting, classifying, presenting, analysing and interpreting data.**

- obtain information from a variety of sources such as, maps of various scales, audio visual material, internet, documentary materials and statistics.
- present information in a variety of ways.
- make informed judgements and decisions.

H. Assessment Procedures

The Botswana Senior Secondary Geography syllabus will be assessed through a variety of continuous assessment techniques to ensure that the set aims and objectives are attained. Field work, assignments, tests, projects, research work and many others will be used to assess the progress being made and to improve instruction.

At the end of the two-year course, a final examination will be administered. Continuous assessment in the form of coursework will contribute to certification. Where it is not possible to offer coursework, alternative papers to test the same knowledge, skills and attitudes will be administered.

Examination syllabuses have been developed by the examining body to provide teachers with guidelines on objectives to be tested. This syllabus should be studied together with the examination syllabus.

I. Syllabus Content and Layout

The syllabus emphasises issues and concerns primarily in Botswana with examples drawn from other countries. It is arranged in modules. Module One prepares learners for carrying out simple research, fieldwork and map reading. It is essential that these skills are not taught in isolation, but are integrated into the teaching framework of the other four themes. These are basic skills, which are applicable in all topics where data collection is involved. Module Two deals mainly with the physical aspects of Geography. Module Three specifically addresses sustainable use of natural resources in Botswana. Module Four is mainly concerned with economic activities and Module Five is about population and settlement studies. Teachers must note that the content in this syllabus has been presented in a holistic manner and no clear-cut distinction has been made between physical and human geography.

MODULE ONE

RESEARCH AND MAP READING SKILLS

Topic	General Objectives	Specific Objectives
	Students should be able to:	Students should be able to:
Research Skills	carry out research projects	<ul style="list-style-type: none">- identify a problem area/research topic and state the objectives.- apply methods of data collection such as interview, questionnaire, observation, simple survey and document study.- demonstrate the ability to use and access information from the computer.- describe the limitations of the methods used.- demonstrate the ability to analyse and present data collected.

Map Reading Skills	read and interpret maps	<ul style="list-style-type: none">- identify the characteristics of a map as the title, key, scale and direction.- demonstrate the ability to use a scale in measuring distance, calculating area and gradient.- demonstrate the ability to use instruments to measure distance, find direction and calculate bearing.- identify landforms on maps using contours.- describe human activities in relation to the features on the map.- identify and interpret ground, air photographs and satellite images.- locate features on a map using 4 and 6-figure grid references.- locate features on a map using longitudes and latitudes.- demonstrate the ability to read and calculate time with reference to the Greenwich Meridian.
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MODULE TWO

THE PHYSICAL WORLD

Topic	General Objective	Specific Objective
	Students should be able to:	Students should be able to:
The Earth's Structure	understand the structure of the earth and plate movements.	<ul style="list-style-type: none">- list and describe the three layers that comprise the earth's structure.- explain the forces of compression and tension in relation to the theory of plate tectonics.- describe the distribution of earthquakes and volcanoes in relation to plate margins.- explain how volcanoes and earthquakes are formed and their impact on human beings and the environment.- Interpret the richter scale to determine the magnitude of earthquakes.- explain the formation of related landforms for example, fold mountains and lakes, rift valleys and block mountains.- discuss the impact of the above landforms on human activities.

<p>Weather</p>	<p>understand and appreciate the elements of weather.</p>	<ul style="list-style-type: none"> - distinguish between weather and climate. - demonstrate the ability to measure, record and analyse weather statistics of temperature, rainfall, humidity, air pressure, cloud cover , sunshine, wind speed and wind direction. - describe factors influencing weather. - analyse synoptic charts and interpret weather photographs. - explain the atmospheric process that leads to differences in air pressure. - identify global wind patterns. - describe and explain the formation of relief, frontal and convection rainfall with reference to Botswana. - define the concepts of El Nino and La Nina. - describe and explain the effects of El Nino and La Nina to human activity in Southern Africa.
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Climate	appreciate the influence of climate on natural and human activities.	<ul style="list-style-type: none">- identify and locate on a map the climate types of Botswana- identify and locate on a map of Africa the following climatic regions: Deserts, Semi-Desert, Savannah, Warm Temperate continental, Equatorial and Mediterranean.- discuss the above climatic regions under the following: location, climate, vegetation and human activities- discuss the impact of human activities on the environment.
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MODULE THREE:

UTILISATION AND MANAGEMENT OF NATURAL RESOURCES

Topic	General Objectives	Specific Objectives
	Students should be able to:	Students should be able to:

<p>Utilisation and Management of Water</p>	<p>develop an appreciation for sustainable utilisation and management of water as a resource in Botswana .</p>	<ul style="list-style-type: none"> - describe the hydrological cycle. - identify sources of water in Botswana as underground and surface and explain their significance to human activities. - discuss Botswana’s wetlands policy in relation to the international wetlands protocol. - explain why water is a scarce resource in Botswana. - discuss factors influencing water demand and distribution in Botswana. - evaluate the impact of human beings on the sources of water. - discuss water as an internationally shared resource. - discuss water management and conservation strategies in Botswana as stated in the water management plan. - discuss the principles of Environmental Impact Assessment as a tool for development.
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<p>Utilisation and Management of Wild Animals (Fauna)</p>	<p>appreciate the need for sustainable use of wild animals as a resource in Botswana.</p>	<ul style="list-style-type: none"> - identify and locate on a map areas of wildlife management in Botswana. - discuss the importance of wild animal as a resources to Botswana's economy. - discuss the impact of wild animals on the environment. - discuss the conflicts between the management of wild animals and other land use activities. - evaluate the role of the stakeholders (Government, Non Governmental Organisations (NGO's) Private Sector, Local Authorities and Local Communities) in the sustainable use of wild animals in Botswana.
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<p>Utilisation and Management of Forest and Veld Products</p>	<p>appreciate Botswana's need to use forest and veld products in a sustainable manner.</p>	<ul style="list-style-type: none"> - list and locate on a map of Botswana areas of concentration of forests and veld products. - discuss the importance of commercialisation of forests and veld products to the stakeholders (Government, NGOs, Private Sector, Local Authorities and Local Community). - discuss the environmental impact of commercialisation of forests and veld products resources in Botswana. - suggest the role stakeholders can play in the sustainable use of forest and veld products.
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<p>Utilisation and Management of Range-lands</p>	<p>develop an understanding and appreciation of the importance of sustainable use of range lands in Botswana.</p>	<ul style="list-style-type: none"> - define range land and range-land degradation. - describe human and physical factors that cause range land degradation such as over harvesting of thatch grass, overstocking and drought. - discuss the effects of range-land degradation. - evaluate the role government, private sector NGOs, Local Authorities and Local Communities can play in the sustainable utilisation of range-lands.
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Utilisation and Management of Water, Coal and Sun as Sources of Energy

understand the different processes involved in the production of power using water, coal and the sun.

- **discuss the factors that influence the location and development of Hydro Electric Power (H.E.P.) schemes in Africa.**
- **describe the process of generating electricity from water - H. E. P.**
- **discuss the advantages and disadvantages of generating power from water resources.**
- **locate on a map of Africa any one of the following H.E.P. schemes, Owen Falls project (Uganda), Volta (Ghana), Kariba Dam (Zimbabwe/Zambia).**
- **discuss factors influencing the location and development of the selected HEP scheme.**
- **evaluate the importance of the H E P scheme to the economy of the country or countries in which it is located.**
- **discuss the factors which influence the location and development of a thermal power station.**
- **locate Morupule Power Station on a sketch map.**
- **describe the process of generating power from coal in Morupule.**
- **discuss the advantages and disadvantages of generating power from coal.**
- **evaluate the role of stakeholders (Government, NGOs, Private**

MODULE FOUR:
ECONOMIC ACTIVITIES

Topic	General Objective	Specific Objective
	Students should be able to:	Students should be able to:

<p>AGRICULTURE:</p> <p>Arable Farming in Botswana and the wider region: Case studies: Chobe, Tuli Block and Pandamatenga; sugar plantations in South Africa and cotton farming in the Gezira in Sudan.</p>	<p>understand the different systems of arable farming.</p>	<ul style="list-style-type: none"> - define subsistence and commercial farming systems. - discuss subsistence and commercial arable farming under the following headings: <ul style="list-style-type: none"> - Inputs - Outputs - Processes/activities involved - Problems and possible solutions. - locate on a map of Botswana where subsistence and commercial arable farming are practised. - discuss factors influencing arable farming in Botswana. - discuss arable farming in Botswana. - discuss the changes that are occurring in the subsistence arable farming system in Botswana. - discuss future prospects of arable farming in Botswana. - evaluate the impact of government schemes such as: Arable Agricultural Programme (ARAP), Arable Land Development Programme (ALDEP) and Food Agricultural Programme (FAP) in promoting arable farming in Botswana. - describe the characteristics of plantation agriculture under the
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<p>Pastoral Farming in Botswana.</p> <p>DRAFT</p>	<p>understand the different types of pastoral farming.</p>	<ul style="list-style-type: none"> - differentiate between subsistence and commercial pastoral farming. - locate on a map of Botswana areas of both subsistence and commercial pastoral farming. - explain the factors affecting pastoral farming for example, climate, vegetation, water availability, cultural beliefs, market, and transport. - discuss subsistence and commercial pastoral farming under the following headings: <ul style="list-style-type: none"> - Inputs - Outputs - Processes/activities involved - Problems and possible solutions. - Future prospects of pastoral farming. - discuss the impact of pastoral farming on the environment. - discuss the changes occurring within subsistence pastoral farming. - evaluate the impact of government pastoral farming schemes such as: Tribal Grazing Land Policy (TGLP) and Small Livestock Owners in Communal Areas (SLOCA).
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<p>Tourism Case studies : Botswana and South Africa or Kenya</p>	<p>appreciate the importance of tourism to a country's economic development.</p>	<ul style="list-style-type: none"> - define inland and coastal tourism. - name and locate any five areas of tourist attractions (both coastal and inland). - discuss the positive and negative impact of tourism in Botswana and in either Kenya or South Africa. - justify the economic importance of both inland and coastal tourism in areas studied using statistical data. - evaluate the stake - holders' role (Government, Local community, NGOs and the Private sector) in the development of tourism in Botswana. - analyse the problems facing the development of tourism in Botswana and suggest possible solutions.
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Processing and Manufacturing industries in Botswana and the SADC region

understand the different types of processing and manufacturing industries.

- **classify industries into primary, secondary, tertiary and quaternary sectors.**
- **differentiate between processing and manufacturing industries.**
- **describe the factors which affect the location of industries in Botswana.**
- **distinguish between small and large scale industries in terms of labour, capital and output.**
- **discuss the importance of small and large scale industries to the economy of Botswana.**
- **evaluate government policies on small and large scale industries in Botswana.**
- **select and analyse one small scale and one large scale industry in Botswana in terms of location factors, processes, input and output, problems, solutions and its impact on the environment.**
- **select and analyse any one large scale industry (for example Textile, car assembly iron & steel) in either South Africa, Zimbabwe, Swaziland or Lesotho in terms of: location factors, processes/activities ¹⁷ involved, input and output, problems and possible solutions and impact on the environment.**

Mining

understand and appreciate the role of mining to Botswana's economy and any other country in the world.

- **describe the distribution of major rock types in Botswana.**
- **locate on a map of Botswana the distribution of major minerals.**
- **match rock type with mineral occurrence in Botswana.**
- **describe and explain the factors influencing the exploitation of minerals such as geology, ore content, quality, quantity, market, technology and government policy.**
- **analyse data presented in the form of charts and graphs to determine the relative importance of the mining sector to the economy of Botswana and any other country in Africa.**
- **evaluate the impact of mining on the environment using a case study of Selebi-Phikwe in Botswana and the Copper Belt of Zambia.**
- **identify and discuss the problems of a mineral led economy with reference to Botswana and Zambia.**
- **discuss strategic importance of minerals such as oil, coal, iron, diamonds and uranium.**
- **explain how the mining of uranium and oil has affected politics in Southern Africa and the**

MODULE FIVE:

POPULATION AND SETTLEMENT STUDIES

Topic	General Objective	Specific Objective
	Students should be able to:	Students should be able to:

<p>Population Studies</p>	<p>understand population dynamics and its social and economic impact.</p>	<ul style="list-style-type: none"> - define the following concepts: population (de facto and de jure), population pressure, optimum population, population explosion, population density, population distribution, fertility rate, mortality rate, over-population, under-population and population growth. - account for the world's population distribution patterns. (with the aid of a map) - discuss factors influencing population growth. - describe the growth of the world's population and its consequences. - evaluate the impact of rapid population growth on the available resources. - interpret population pyramids of developing countries (with emphasis on Botswana) and those of a developed country. - describe and explain the different stages of the Demographic Transition Model. - explain Botswana's position in the Demographic Transition Model. - account for the population density and distribution with the aid of a map, in Botswana. - project future population growth trends of Botswana.
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<p>Population Movements</p>	<p>understand population movements and their socio-economic impact</p>	<ul style="list-style-type: none"> - define migration. - differentiate between types of migration, for example: local, regional and international. internal and external, temporary and permanent. - critically assess population movements and evaluate their impact on available resources. - evaluate the impact of migration on both rural and urban areas in Botswana. - evaluate Government's effort to curb rural-urban migration.
<p>HIV/AIDS in Botswana.</p>	<p>understand the socio-economic impact of HIV/AIDS in Botswana.</p>	<ul style="list-style-type: none"> - define HIV/AIDS. - interpret Botswana's HIV/AIDS statistics and account for its distribution. - assess the social and economic impact of HIV/AIDS in Botswana. - discuss efforts being taken to address the HIV/AIDS problem in Botswana.

<p>Settlement Studies</p>	<p>Understand the dynamic nature of settlements.</p>	<ul style="list-style-type: none"> - identify the different settlement types and patterns in Botswana. - draw a sketch map of settlement patterns and land use in their locality. - account for the evolution of different settlement patterns in Botswana. - discuss the advantages and disadvantages of each settlement pattern. - assess the National Settlement Policy. - discuss the historical evolution of cities and towns in Botswana. - describe the different models of the internal structure of towns/ cities. - describe and explain the morphology of the selected town / city. - evaluate the morphology of the selected town / city. - analyse the relationship of the selected town / city to the surrounding areas.
<p>Case study of any <u>one</u> selected town or city in Botswana.</p>		