

Republic of Namibia

MINISTRY OF EDUCATION

NAMIBIA SENIOR SECONDARY CERTIFICATE (NSSC)

GEOGRAPHY SYLLABUS

HIGHER LEVEL

SYLLABUS CODE: 8330

GRADES 11 - 12

FOR IMPLEMENTATION IN 2010 FOR FIRST EXAMINATION IN 2011

DEVELOPED IN COLLABORATION WITH UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS



Republic of Namibia

MINISTRY OF EDUCATION

NAMIBIA SENIOR SECONDARY CERTIFICATE (NSSC)

GEOGRAPHY SYLLABUS

HIGHER LEVEL

This syllabus replaces previous NSSC syllabuses and will be implemented in 2010 in Grade 11



Ministry of Education National Institute for Educational Development (NIED) Private Bag 2034 Okahandja Namibia

© Copyright NIED, Ministry of Education, 2009

ISBN: 99916-69-46-9

Printed by NIED

Publication date: 2009

TABLE OF CONTENTS

1.	Introduction	1
2.	Rationale	1
3.	Aims	2
4.	Learning Content	2
5.	Assessment Objectives	21
6.	Scheme of Assessment	23
7.	Specification Grid	24
8.	Explanatory Notes to Teachers	25
9.	Glossary	28
10.	Grade Descriptions	31

1. INTRODUCTION

The Namibia Senior Secondary Certificate Higher level (NSSCH) for Geography syllabus is designed as a two-year course for examination after completion of the Junior Secondary Certificate. The syllabus is designed to meet the requirements of the Curriculum Guide for Formal Senior Secondary Education for Namibia and has been approved by the National Examinations, Assessment and Certification Board (NEACB).

The National Curriculum guidelines, applicable at a stage of senior secondary education (grades 11 and 12), and the equivalent stages of non-formal education, as part of life-long learning, recognise the uniqueness of the learner and adhere to the philosophy of learner-centred education.

The Namibia National Curriculum guidelines

- recognise that learning involves developing values and attitudes as well as knowledge and skills;
- promote self awareness and an understanding of the attitudes, values and beliefs of others in a multilingual and a multicultural society;
- encourage respect for human rights and freedom of speech;
- provide insight and understanding of crucial "global" issues in a rapid changing world which affect quality of life: the AIDS pandemic, global warming, environmental degradation, maldistribution of wealth, expanding and increasing conflicts, the technological explosion and increased connectivity;
- recognise that as information in its various forms becomes more accessible, learners need to develop higher cognitive skills of analysis, interpretation and evaluation to use information effectively;
- seek to challenge and to motivate learners to reach their full potential and to contribute positively to the environment, economy and society.

Thus the Namibia National Curriculum syllabi provide opportunities for developing essential/key skills across the various fields of study. Such skills cannot be developed in isolation and may differ from context to context according to field of study. Geography contributes directly to the development of the 8 key skills marked *.

- Communication skills*
- Numeracy skills*
- Information skills*
- Problem-solving skills*
- Self-management and Competitive skills*
- Social and Co-operative skills*
- Physical skills
- Work and Study skills*
- Critical and Creative thinking skills*

2. RATIONALE

Geography is a study of the earth and the interaction between humans and nature; it examines humans in their interdependent relationship with the earth. Geography studies ways in which humans have adapted nature to meet their needs and requirements and to what extent humans are able to utilise their environment in a sustainable manner. Geography also provides scientific knowledge about physical, environmental and human processes, which form the basis for cross-curricular education.

3. AIMS

(Aims are the same for all learners)

The aims are to encourage learners to acquire and develop:

- 1. a knowledge and understanding of the terminology, concepts and systems fundamental to a study of physical and human geography;
- 2. a sense of place and an understanding of relative location on a local, regional and global scale;
- 3. an awareness of the spatial distributions of phenomena on the earth's surface and the relationships among the dynamic nature of such distributions;
- 4. an understanding of the relationships and interactions of people and their environment in response to physical and human processes in Namibia and internationally;
- 5. an appreciation of the potentialities and limitations of the physical environment for human activities;
- 6. a critical awareness of different ways of life to foster positive attitudes towards other people and societies with different social, economic and political circumstances;
- 7. an awareness of the factors and processes which act upon physical and cultural environmental systems which bring about change;
- 8. an understanding of aspects of the contemporary world which are changing;
- 9. an awareness of societies which are going through rapid social and economic changes;
- 10. an appreciation of how human use and abuse of the environment can lead to various forms of environmental enhancement and degradation;
- 11. a caring attitude towards the environment and recognition of the need for conservation;
- 12. skills in geographical observation, analysis and communication;
- 13. an understanding of HIV and AIDS, gender, information technology and environmental issues and their impact on development.

4. LEARNING CONTENT

SECTION A

The content is divided into three broad themes:

- A.1 The Physical World
- A.2 Economic Development and the Use of Resources
- A.3 Population and Settlement Studies

The first three themes are subdivided into topics, and presented in a table with general objectives and specific objectives.

NB: Case studies included in the learning content are not prescriptive and are intended only as a guide. Teachers are urged to use other case studies which may be relevant.

A.1 THE PHYSICAL WORLD

TOPIC	GENERAL OBJECTIVES	SPECIFIC OBJECTIVES
	Learners will:	Learners should be able to:
A.1.1 The earth's structu	• understand the structure of the earth and plate movements	 explain the forces of compression and tension in relation to the theory of plate tectonics describe the distribution of earthquakes, volcanoes, fold mountains, deep sea trenches, volcanic island arcs, mid-oceanic ridges, margins and plate movements: plates moving away from each other, moving towards each other and sliding past each other describe three types of volcano and associated features – ash and cinder, lava, composite cones describe the main types of intrusions and associated landforms discuss the environmental and economic impact of and strategies to manage the effects of earthquakes and volcanic eruption Case studies: (i) The East Africa Rift Valley in Africa (ii) The natural hazard and volcanic eruption: Mount Pinatubo (iii) The Kobe Earthquake, 1995
A.1.2 Landforms and landscape processe	• understand the weathering, river, wind and marine processes	 (a) Weathering processes and landforms distinguish between weathering and erosion describe what is meant by different types of weathering - physical/mechanical, chemical and biological weathering and associated landforms explain the main factors influencing the type and rate of weathering by illustrating why weathering is more rapid in humid tropical regions of the world than in temperate regions

Learners will·	
Ecanters with.	Learners should be able to:
	 (b) River processes and landforms describe the characteristics of a river valley in terms of the upper, middle and lower course (longitudinal profile) name and describe the erosional processes of a river system: hydraulic action; corrasion/abrasion; corrosion and attrition; and landforms associated with the work of rivers e.g. waterfalls, rapids, floodplain, meanders name and explain how a river transports its load: traction, saltation, suspension and solution analyse the reasons why and where in a river's course deposition takes place, with reference to volume, velocity of flow, nature of the load and bed-rock describe the landforms associated with the deposition of the load in a river process: meanders, deltas, levees, marshes, floodplain, inland deltas/oshanas discuss the benefits associated with utilisation and management of resources in wetland areas such as floodplains and deltas (c) Wind/aeolian processes and landforms name and describe the erosional process of wind action, for example, abrasion, deflation and attrition, and associated landforms such as rock pedestals, deflation hollow and desert pavements name and describe the twind transport processes for example suspension, saltation and surface creep describe the landforms associated with wind action in Namibia e.g. linear/seif dunes, star dunes, starchans/crescent dunes (d) Coastal/marine processes and associated landforms distinguish the types of waves such as constructive and destructive and explain the
	 name and describe the erosional processes of wave action such as corrasion, hydraulic action, corrosion and attrition, and associated erosional landforms such as cliffs, stacks, caves, wave-cut notch, wave-cut platform describe the transportation of materials along the coastline: onshore and offshore

ΤΟΡΙϹ		GENERAL OBJECTIVES Learners will:	SPECIFIC OBJECTIVES Learners should be able to:
A.1.3	Weather	• appreciate the elements of weather	 distinguish between weather and climate draw, describe and explain the use and siting needs of weather instruments such as: the rain gauge, minimum and maximum thermometer, wet and dry bulb thermometer (hygrometer), barometer/barograph, anemometer and wind vane analyse the weather statistics of temperature, rainfall, humidity, air pressure, cloud cover, sunshine, wind speed and wind direction describe and explain the characteristics, siting and the use of a Stevenson screen describe factors influencing temperature such as latitude, altitude, ocean current, distance from the sea, prevailing wind, pressure systems
A.1.4	Climate and natural vegetation	appreciate the influence of climate on natural vegetation and the relationship between human activities and natural vegetation	 identify and locate on a map of Africa the following vegetation regions: tropical rain or equatorial forest (evergreen) tropical grassland (savannah) tropical deserts Mediterranean vegetation describe and explain the main features of each of the vegetation regions mentioned above with reference to natural vegetation describe and explain the main characteristics of the climate in these vegetation regions under the headings such as temperature – mean temperature of the hottest month, mean temperature of the coldest month, therefore the annual range; rainfall – the amount and seasonal distribution; other climatic features – wind, cloud, humidity, etc. analyse and interpret the climatic graphs showing the main characteristics of temperatures and rainfall of each of the regions analyse and discuss the causes and consequences of rapid and progressive clearance of natural vegetation over time analyse and discuss forest management techniques such as agro-forestry, reforestation, sustainable harvesting, etc.

A.2 ECONOMIC ACTIVITIES AND THE USE OF RESOURCES

TOPIC	GENERAL OBJECTIVES	SPECIFIC OBJECTIVES
	Learners will:	Learners should be able to:
A.2.1 Agriculture	• understand the different agricultural systems in Namibia and SADC countries	 describe farming as a system with reference to inputs, processes and outputs define subsistence and commercial farming systems locate on a map of Namibia where dominant areas of small-scale subsistence, small-scale cash-crop farming and large-scale commercial farming are practised, and explain the development of these farming systems in Namibia distinguish between the three main agricultural systems named above with reference to scale of production, methods of organisation and products of each system discuss the physical (relief, climate, soil) and human (economic, social and political) inputs involved in the processes on a farm to produce outputs of animals and crops
		 Case Studies: (i) Subsistence farming in Northern Namibia (ii) Small scale cash-cropping in Brakelsdal farming in Stellenbosch area in S.A. analyse the strategies to improve the output in large-scale commercial farming by using the case study of Molopo cattle ranching in Botswana or the Orange river project in South Africa discuss the economic and political factors and their effects upon shortages of food e.g. capital investment, incentives, transport difficulties, war, etc. discuss shortages of food as related to natural problems such as soil exhaustion, droughts, floods, pests and diseases discuss the negative impact of agriculture on the environment, for example, soil erosion, overgrazing/overstocking, desertification, salination, deforestation and pollution
		mixed cropping, use of organic fertiliser Case studies:
		 (i) Farming practices leading to desertification in Namibia (ii) Machakos: Can agriculture be sustainable in Kenya?

NSSCH Geography Syllabus, NIED 2009

TOPIC	GENERAL OBJECTIVES Learners will:	SPECIFIC OBJECTIVES Learners should be able to:
TOPIC A.2.2 Industrial systems	GENERAL OBJECTIVES Learners will: • understand different types of industries	 SPECIFIC OBJECTIVES Learners should be able to: classify industries into primary, secondary, tertiary activities describe the factors influencing the location of industries in general: raw materials, labour, energy, capital, transport, markets, siting factors Understand the role of the fishing industry as a case study in the Namibian economy to illustrate (a), (b) and (c) below (a) Primary activities describe the factors influencing the availability of the raw material, such as ocean currents, upwelling, marine food chain, length of the coast describe the exploitation of fish resources with reference to demersal and pelagic fish, and fishing methods discuss factors threatening the availability of fish resources such as physical factors (red tides, fluctuating water temperatures), human factors (pollution, over fishing) and management strategies to ensure sustainable use (conservation law/ legislation, quotas, net type and size) (b) Secondary activities describe the factors influencing the location of fish processing plants such as raw materials, power, labour, capital, transport, markets and siting factors
		 describe the inputs, processes and outputs of a fish processing plant in Namibia show an understanding of the agglomeration economic effect of the fishing industry (c) Tertiary activities demonstrate an understanding of the services necessary for the effective functioning of the fishing industry with reference to local and foreign markets, supply and maintenance services, transportation, finance describe the role of the fishing industry as part of the policies for sustainable development Case study: The fishing Sector, the economies of Walvis Bay and Luderitz in Namibia

 A.2.3 Leisure and tourism appreciate the importance of leisure activities and tourism to the economy of Namibia describe the types of leisure and tourist activities in Namibia describe the difference between local/domestic tourism and international tourism locate on a map important tourist attraction areas in Namibia discuss the advantages of the tourist industry such as growth in income, increase in foreign exchange earnings, employment opportunities, the development of infrastructu and facilities and cultural advantages 	ΤΟΡΙϹ	GENERAL OBJECTIVES Learners will:	SPECIFIC OBJECTIVES Learners should be able to:	
 describe the craft industry as part of the tourist industry discuss the negative impacts of tourism such as seasonal unemployment, under-use of facilities at certain seasons of the year, increased congestion, pollution, shortage of services (water), damage to the landscape, socio-cultural problems, dependence on imports and price hikes analyse the problems facing the development of tourism in Namibia and other LEDCs (transport, publicity/marketing, capital, efficient organisation and management, etc.) ar suggest possible solutions Case studies: (i) Etosha National Park in Namibia (ii) Development of ecotourism in Namibia, including the need to encourage and 	A.2.3 Leisure and tourism	appreciate the importance of leisure activities and tourism to the economy of Namibia	 define the terms leisure and tourism describe the types of leisure and tourist activities in Namibia describe the difference between local/domestic tourism and international tourism locate on a map important tourist attraction areas in Namibia discuss the advantages of the tourist industry such as growth in income, increase in foreign exchange earnings, employment opportunities, the development of infrastructure and facilities and cultural advantages describe the craft industry as part of the tourist industry discuss the negative impacts of tourism such as seasonal unemployment, under-use of facilities at certain seasons of the year, increased congestion, pollution, shortage of services (water), damage to the landscape, socio-cultural problems, dependence on imports and price hikes analyse the problems facing the development of tourism in Namibia and other LEDCs (transport, publicity/marketing, capital, efficient organisation and management, etc.) and suggest possible solutions Case studies: (i) Etosha National Park in Namibia (ii) Development of ecotourism in Namibia, including the need to encourage and 	

TOPIC	GENERAL OBJECTIVES	SPECIFIC OBJECTIVES
	Learners will:	Learners should be able to:
A.2.4 Energy and water resources	• understand the different processes involved in the production of power using renewable fuels and non- renewable fossil fuels with reference to SADC	 distinguish between non-renewable fossil and renewable sources of energy describe the significance of non-renewable energy in terms of its availability and the contribution made by coal, oil, natural gas and wood describe the growing significance of renewable energy supplies to reduce dependence on fossil fuels: geothermal, waves, tides, running water, solar and biogas locate major Hydro-Electric power schemes on the map of Southern Africa describe the factors influencing the location and development of hydro-electric power describe the process of generating hydro-electric power (H.E.P) explain the advantages and disadvantages of generating power from coal explain the advantages and disadvantages of nuclear power illustrate the danger of nuclear power by using the examples of nuclear accidents such as that at <i>Chernobyl in Ukraine</i> explain the advantages and disadvantages of solar power describe and explain Namibia's energy policy on the environment, health and safety with reference to assessment of energy projects, depletion of woodland, household health and safety describe and explain the economic and development context for Namibia's energy policy discuss how Namibia's energy sector is integrally linked to the SADC region and global trade in oil
NSSCH Geography Syllabus, NIED 2	develop an appreciation for sustainable utilisation and management of water resources in Namibia	 discuss the uses of water for agriculture, domestic and industrial purposes, with recognition of competition for the use of water which requires careful management in certain areas identify sources of water in Namibia such as ground water and surface water and explain their significance to human activities discuss how the processes operating within the water cycle may affect supplies, with special reference to the causes and effects of flooding and drought explain the causes and consequences of water pollution on the natural and human environment discuss ways of improving water quantity, quality and access under the following headings: pollution control, improved sanitation, efficient distribution and desalination explain why there are problems of water supply in Namibia and describe ways of using water more efficiently

ΤΟΡΙΟ	C	GE Lea	NERAL OBJECTIVES string states will:	SPE Leai	SPECIFIC OBJECTIVES Learners should be able to:	
A.2.5	Environmental risks and management	•	understand how human activity can cause changes to the environment	• • •	describe the causes, effects of, and strategies to reduce global warming by using a case study: <i>How might global warming affect Bangladesh?</i> describe the process of acid rain formation and explain how this process can destroy an eco-system by using a case study: <i>Acid rain in Scandinavia</i> describe the process of desertification and explain how this process destroys eco-system by using a case study: <i>The Sahel</i> describe the process of deforestation and explain how this process destroys an eco-system by using a case study: <i>The Sahel</i> describe the process of deforestation and explain how this process destroys an eco-system by using a case study: <i>Deforestation in Namibia</i>	

A.3 POPULATION AND SETTLEMENT

TOPIC	GENERAL OBJECTIVES	SPECIFIC OBJECTIVES
	Learners will:	Learners should be able to:
A.3.1 Population studies	 understand population dynamics and their social, economic and environmental impact 	 give reasons for the rapid increase in the world's population in recent times, " the population explosion" define the main components influencing population growth: birth rate, death rate and migration describe the relationship between population growth and resources and explain why problems may result in some areas of over-population and under-population identify and discuss reasons for contrasting patterns of population growth in different world areas as influenced by differences in birth rate, death rate and migration. Factors affecting these influences should be considered such as differences in social, economic and other factors, e.g. government policies, and their impact upon birth rates, differences in health care, social and environmental factors influencing death rates. These factors should be illustrated by reference to selected examples describe the consequences (benefits and problems) of different patterns of population growth. Consideration should be given to variations in the size and nature of dependent population and standard of living identify and discuss reasons for different types of population further as shown by agesex pyramids. Learners should be able to describe population pyramids and relate population change to the different stages of the Demographic Transition Model identify major influences on population density and population distribution. Reference should be made to physical, economic and human factors discuss reasons for population movements. Reference should be made to internal movements, both voluntary and involuntary analyse and discuss strategies for managing population growth in relation to the pace of economic development and environmental sustainability

NSSCH Geography Syllabus, NIED 2009

ТОРІС	GENERAL OBJECTIVES	SPECIFIC OBJECTIVES
	Learners will:	Learners should be able to:
A.3.2 HIV and AIDS	• understand the socio-economic impact of HIV and AIDS in Namibia	 define HIV and AIDS interpret Namibia's HIV and AIDS statistics and account for its spatial distribution assess the demographic and socio-economic impact of HIV and AIDS in Namibia discuss the efforts being taken by the government, local authorities, non-governmental organisations, churches, private sector and individuals to address the HIV and AIDS problem in Namibia investigate how the following measures will have an impact on population growth and structure and economy of Namibia condom use introduction of antiretroviral drugs to infected people
A.3.3 Settlement studies	• understand the dynamic nature of settlements in LEDCs (less economically developed countries) and MEDCs (more economically developed countries)	 describe the patterns of rural settlement such as dispersed, linear and nucleated explain how physical factors (relief, soil, water supply), accessibility, agricultural land use and political factors influence the size and pattern of rural settlement in LEDCs and MEDCs discuss the factors which may influence the size, growth and function of rural and urban settlement in LEDCs and MEDCs discuss the internal structure (morphology) of towns and cities of Less Economically Developed Countries (LEDCs) and More Economically Developed Countries (MEDCs) by focusing on the Central Business District (CBD), residential areas, industrial areas, the provision of open space and transport routes analyse and discuss problems associated with the growth of urban areas such as congestion in the CBD, housing shortage, informal settlements and traffic congestion and suggest solutions describe the effects of urbanisation on the environment, for example, pollution (air, water, visual and noise), the results of urban sprawl on surrounding areas such as the growth of out-of-town urban activities like shopping areas, sports facilities and industrial estates

SECTION B

The Learning content for Section B is divided into five themes which are designed to develop an understanding of the inter-relationships between the natural and human environment:

- B.1 The Physical World
- B.2 Economic and Environmental issues
- B.3 Population and Settlement studies
- B.4 The interpretation of Topographical Maps
- B.5 Research Techniques

SECTION B

B.1 THE PHYSICAL WORLD

ТОР	IC	G La	ENERAL OBJECTIVES earners will:	SI Le	PECIFIC OBJECTIVES earners should be able to:
B.1.1	Global relief patterns	•	understand and appreciate the global relief patterns	•	show a basic understanding of plate tectonics, describe the global pattern of plates and show an understanding of their structure, boundaries and movements in relation to the origins and characteristics and broad distribution of the major relief elements of the world such as mountain ranges, shields, sedimentary basins, ocean basins, ridges and trenches
B.1.2	Processes on slopes	•	understand the processes at work on slopes	•	show an understanding of the modification of slopes by weathering and mass movement: soil creep, slope wash, mudflows, scree and landslides
B.1.3	The hydrological cycle	•	understand the components of the hydrological cycle	• • •	identify and explain the components of the hydrological cycle such as evapo- transpiration and rainfall effectiveness, infiltration, run off, through flow and percolation describe and explain the origin of ground water and springs show an understanding of the concept of water balance and the modification of the cycle by people show a knowledge of drainage basins and explain their evolution describe and explain the earth's energy budget

ΤΟΡΙΟ	GENERAL OBJECTIVES Learners will:	SPECIFIC OBJECTIVES Learners should be able to:
B.1.4 Atmospheric processes	• understand the general atmospheric process	 describe and explain vertical and horizontal temperature and pressure changes show an understanding of precipitation, atmospheric circulation, air masses and convergence zones differentiate between temperate and tropical low pressure systems demonstrate an ability to interpret synoptic weather charts
B.1.5 Ecosystems	• understand the interaction of physical and human influences on eco-systems selected	 describe and explain the inter-relation of climate, soil and natural vegetation in relation to the ecosystems of tropical rainforest, savannah and tropical deserts describe the characteristics and explain the development of soil and the soil profiles with particular reference to laterites, latosols, red loams and desert soils show how human activity has modified ecosystems, e.g. desertification, deforestation, acid rain and methods of cultivation

B.2 ECONOMIC AND ENVIRONMENTAL ISSUES

TOPIC	GENERAL OBJECTIVES	SPECIFIC OBJECTIVES	
	Learners will:	Learners should be able to:	
B.2.1 Agriculture	• understand different agricultural systems and their social, economic and environmental implications	 show an understanding of the opportunities and constraints to be considered when developing the land for agriculture show how the output from land varies and identify the physical and human factors which influence decision making and explain how these influences have created different systems of agriculture explain how different population densities, technologies, levels of communication, politics and culture as well as physical opportunities influence different agricultural systems describe and explain the socio-economic and environmental implications of change in agricultural land use describe the methods of increasing agricultural production with special reference to a selected LEDC describe and explain the nature of soil erosion together with its physical, social and economic consequences show an understanding of conservation and land management strategies 	
B.2.2 Industry	• understand the dynamic nature of industries	 describe the factors influencing the location of the following processing and manufacturing industries: motor vehicle assembly high technology industries craft industries describe and explain the spatial and structural characteristics of industry including the scale of operation: cottage, factory, and multinational describe the nature of industrial landscapes and environmental consequences of industrial developments of different types give reasons for and describe the implications of industrial change and its geographical location 	

ΤΟΡΙΟ	GENERAL OBJECTIVES Learners will:	SPECIFIC OBJECTIVES Learners should be able to:	
B.2.3 Energy and mining	• understand various sources of energy and minerals and the impact on the environment	 analyse the data for the world pattern of production, distribution and consumption of oil, natural gas, coal and nuclear energy show an understanding of world problems arising from these patterns describe and explain the alternative supplies such as fuelwood, wind, solar and geothermal power demonstrate how the extraction of minerals and production of energy have consequences for both people and the environment 	
B.2.4 Water	• understand the demand and supply of water, and the socio- economic and environmental impacts	 recognise and explain how areas of supply of water are often different from areas of demand and that there are areas of sufficiency and deficiency identify and explain the problems associated with scarcity of water and seasonal changes in supply describe and explain the social, economic, political and environmental benefits and adverse consequences of water control/sharing projects such as irrigation, power, through related problems of health and disease, salination, pollution, erosion and deposition 	

B.3 THE POPULATION AND SETTLEMENT STUDIES

ТОР	IC	GENERAL OBJECTIVES Learners will:	SPECIFIC OBJECTIVES Learners should be able to:
B.3.1	World population	• understand the uneven distribution and density of population	• describe and explain the uneven distribution of population on local (Namibia), regional and world scales and show how variations in distribution and density are influenced by the interaction of physical, social and economic factors
B.3.2	Population movements	• understand various types of migration	 describe and explain the movements of population both international and internal; permanent and temporary movements; involuntary migration describe and explain the geographical implications of population change in areas of loss and population gain
B.3.3	Quality of life	• understand the meaning of "quality of life and welfare"	 show how human welfare may be measured in relation to a variety of indices such as life expectancy, literacy, GNP per capita, housing show how the quality of life is associated with wealth and economic development as well as the nature of the place in which people live
B.3.4	Multi-racial societies	• understand the nature of multi- racial societies	• describe the characteristics of and show an understanding of multi-racial societies and suggest possible solutions to associated problems
B.3.5	Population and food supply	• understand the influence of population growth in relation to food supply	 identify the unequal distribution of food supplies in relation to population and the problems caused such as, quantity and quality of food, famine, malnutrition, adequacy of diet suggest possible solutions to the problems of food supply demonstrate knowledge of aid schemes and rural development schemes covering food supplies

ΤΟΡΙΟ	GENERAL OBJECTIVES Learners will:	SPECIFIC OBJECTIVES Learners should be able to:	
B.3.6 Urbanisation	• understand the dynamics of settlement and the process of urbanisation	 identify settlement hierarchies in relation to size, function and sphere of influence describe and explain the causes and effects of the contrasts in the process of urbanisation in developing countries like Namibia and MEDCS identify and give reasons for the changing size and distribution of large cities describe and explain the problems related to urbanisation including urban sprawl, urban decay and movement of transport suggest solutions to urban problems such as urban planning, satellite settlements, site and service schemes, new communications give reasons for and explain the implications of change in urban areas such as population growth, decline and redistribution; industrial/employment and housing changes describe and explain the inequalities in living standards which arise in cities show a knowledge of features of urban change in MEDCs such as counter urbanisation and gentrification 	

B.4 THE INTERPRETATION OF TOPOGRAPHICAL MAPS

ТОР	IC	GENERAL OBJECTIVES <i>Learners will:</i>	SPECIFIC OBJECTIVES Learners should be able to:	
B.4.1	The interpretation at topographical maps	• read and interpret topographical maps from SADC on the scale of 1:50 000	 learners will be expected to be familiar with large scale topographical maps on the scale of 1:50 000 identify the characteristics of a map such as the title, key, scale and direction demonstrate the ability to use the scale in measuring distance, calculating area and gradient demonstrate the ability to find direction and calculate bearing identify landforms on maps using symbols describe human activities in relation to the features on the map recognise and interpret horizontal/obligue photographs (landforms, natural vegetation, land-use and settlement) locate features on a map using a co-ordinate reference system and be able to give and read four and six figure grid reference to locate places be able to demonstrate skills of analysis and interpretation as well as basic map reading skills analyse and draw inferences about the physical and human landscape by interpretation of map evidence such as patterns of relief, drainage, settlement, communications and land use 	

B5.

RESEARCH TECHNIQUES It is important that these skills are not taught in isolation but are integrated into the teaching of other themes.

TO	PIC	GENERAL OBJECTIVES Learners will:	SPECIFIC OBJECTIVES Learners should be able to:	
B5.1	Research Techniques	• carry out research projects	 identify a problem area/ research topic and state the objectives apply methods of data collection such as interview, questionnaire, sampling, observation, simple survey (counts and measurements) demonstrate the ability to use and access information from the Information Technology (where available) for data analysis and interpretation describe the limitation of the methods used demonstrate the ability to analyse and present data collected in appropriate form using for instance, maps, graphs, tables make effective conclusions and evaluations and suggest solutions, where appropriate 	

5. ASSESSMENT OBJECTIVES

The four assessment objectives for Geography are:

- A. Knowledge with understanding
- B. Analysis
- C. Judgement and decision making
- D. Investigation (enquiry, practical and presentation skills)

The following are descriptions of each assessment objective:

A. Knowledge with understanding

Learners should be able to demonstrate the ability to:

- A.1. recall specific facts relating to the syllabus content and demonstrate the locational knowledge within the range of local, regional, national, international and global scales;
- A.2. demonstrate an understanding of the geographical concepts, principles and processes specified in the syllabus and apply them in a variety of physical, economic, environmental and social context;
- A.3. demonstrate an understanding of spatial patterns and an appreciation of the range of physical, economic, social and political processes and interactions which are experienced by people in different environments;
- A.4. describe the inter-relationships between people's activities and the total environment and demonstrate an ability to seek explanations for them;
- A.5. show an awareness of the dynamic nature of the subject by an appreciation of the ways in which values and perceptions change over time and from place to place;
- A.6. show an awareness that, while geographical studies are concerned with description and explanation, the latter may often be tentative and incomplete.

B. Analysis

Learners should be able to:

- B.1. use, analyse and interpret geographical data presented in a variety of forms including maps at a variety of scales, diagrams, photographs and statistical information;
- B.2. use a variety of techniques for presenting geographical information in an appropriate and effective manner;
- B.3. demonstrate an ability to use and communicate information and conclusions effectively using correct technical terms and techniques;
- B.4. demonstrate an ability to consider evidence, to recognise patterns, to deduce relationships and draw valid conclusions.

C. Judgement and decision making

Through their geographical training learners should be able to:

- C.1. show an awareness of the significance of attitudes and values in current socioeconomic and environmental issues;
- C.2. justify and evaluate solutions to environmental and socio-economic problems;
- C.3. demonstrate an ability to make reasoned judgements, where appropriate which demonstrate:
 - (a) a sensitivity to and concern for landscape and the environment;
 - (b) an aesthetic appreciation of the earth including its people, places, landscapes, natural processes and phenomena;
 - (c) an appreciation of the attitudes, values and beliefs of others in assessing cultural, economic, environmental, political and social issues which have a geographical dimension;
 - (d) an awareness of the contrasting opportunities and constraints of people living in different places and under different physical and human conditions;
 - (e) a willingness to review their own attitudes in the light of the new knowledge and experiences;
- C.4. Recognise the role of decision making within a geographical context as affected by:
 - (a) the physical and human contexts in which decisions are made;
 - (b) the values and perceptions of groups and individuals;
 - (c) the choices available to decision makers and the influences and constraints within which they operate;
- C.5. recognise, analyse, discuss and evaluate strategies for sustainable development.

D. Investigation (enquiry, practical and presentation skills)

Learners will be expected to demonstrate the ability to:

- D.1. select and use suitable techniques for observing, collecting, classifying, presenting, analysing and interpreting data;
- D.2. use a variety of sources for obtaining information including:
 - (a) maps and plans at a variety of scales;
 - (b) audio-visual materials such as pictures, photographs, film, television and radio, internet and computer software;
 - (c) documentary materials such as books, newspapers and magazines;
 - (d) statistics;
- D.3. depict information in map and diagrammatic form;
- D.4. select, use and present geographical information in an appropriate form and an effective manner.

6. SCHEME OF ASSESSMENT

All learners will offer papers 1, 2 and 3.

Paper 12 hours75 marks

Written

Questions for this paper will be set on Section A of the syllabus.

Learners will be required to answer three questions (3 x 25 marks). Six questions will be set: two on each of the three themes. Questions will be resource based and involve problem solving and free response writing, and will set tasks to assess assessment objectives A, B and C.

Paper 22 hours 30 minutes100 marks

Written

Learners will be required to answer four questions (4×25) choosing one from each theme of Section B of the syllabus. Two questions will be set on each of themes 1, 2 and 3 and one question will be set on theme 4 (topographical map of 1: 50 000 with full colour map from any country in SADC. The map will always be presented with a full key). Questions will be resource-based, will involve problem solving and free-response writing. This paper will be concerned with Assessment Objectives A, B and C.

60 marks

Paper 3:1hour 30 minutesTechniques for Geographical Investigation,

Written.

Learners will be set a series of tasks in a written examination on issues relating to one or more of the syllabus themes. Learners must answer all questions. This paper will be concerned with the testing of assessment objective D as a complement to papers 1 and 2 which test mainly objectives A, B, C. A primary feature of questions to be included in this paper is that they will involve an appreciation from a theoretical standpoint of a range of techniques appropriate to a variety of field work studies associated with this level of examination.

In this context relevant aspects of Assessment Objective D, investigation, are significant. Questions will test the methodology used in the application of the following types of enquiry skills in the field work.

- (a) questionnaires;
- (b) observation and recording of information;
- (c) counts such as pedestrian and traffic counts;
- (d) measurement techniques appropriate to river studies, beach, weather studies, urban studies.

Methods used to process and present data using these inquiry skills will also be tested.

These methods will include both cartographical techniques and statistical techniques. Questions will focus on geographical investigations and in this context will include for example, the development of suitable hypotheses appropriate to specific topics. An ability to analyse data collected and to formulate conclusions, as required by Assessment Objectives B and C, will be examined in this paper. **Note:** Coursework will not be an assessment option until necessary materials and training of teachers are in place, but the methodology of teaching geographical inquiry skills and techniques will be encouraged.

7. SPECIFICATION GRID

The following grid summarises the weight of each Assessment Objective A, B, C, D and the marks for each of the three components against each assessment objective.

Assessment Objectives	Weighting %	Paper 1 Marks	Paper 2 Marks	Paper 3 Marks
Α	35	30	40	12
В	27.4	22.5	30	12
С	27.4	22.5	30	12
D	10.2	-	-	24
Total	100%	75 marks	100 marks	60 marks

8. EXPLANATORY NOTES TO TEACHERS

PAPER 3

Learners will be set a series of tasks on this paper on issues relating to one or more of the syllabus themes (learning content). Learners must answer all the questions on the paper which provides a complementary assessment of the assessment objectives tested by Papers 1 and 2 with an emphasis on the Investigative Assessment Objective D which forms the basis of geographical enquiry.

RECOMMENDED PROCEDURES FOR STUDY

Learners should be made aware of the general requirements for this paper before studies of particular topics are introduced. References should be made to the 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 paper could be made by choosing a detailed study at an appropriate stage after the teaching of a specific topic for papers 1 and 2 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.

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.

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).

ILLUSTRATIVE TECHNIQUES

A knowledge of illustrative techniques to present data across topics for Paper 3 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 scattergraphs.

ENQUIRY SKILLS

Questions on this Paper 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.

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.

OBSERVATION

Consideration should be given to syllabus themes which would be relevant for Paper 3 when observation is used as the enquiry skill for data collection. Observations based on the interrelationship of physical and human aspects in a suitable area would be appropriate for Theme 2 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. For Theme 3, the topics could include 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. For Theme 4, studies could include 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.

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 scattergraphs. 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.

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 bedloads. 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.

9. GLOSSARY

It is hoped that this glossary of terms used in the Geography papers (which are relevant only to Geography) will prove helpful to learners as a guide. The glossary has been deliberately kept brief with respect to the descriptions of meanings. Learners should appreciate that the meaning of a term must depend in part on its geographical context. NOTE: Illustrative techniques as quoted in this glossary encompass maps, diagrams, sketches, graphs, etc.

- Annotate Add labels or notes or short comments to meet specific requirements usually on an illustrative technique.
- Calculate Is used when a numerical answer is required. In general, working should be shown, especially where two or more steps are involved.
- Compare Set out the factual details to show how far things either agree or disagree or are alike or unlike. For a comparison, two elements or themes, learners will be required to identify similarities and differences either in written statements or as shown by illustrative techniques.
- Complete To add the remaining details required to a written statement or an illustrative technique.
- Contrast Identify differences.
- Define or state the meaning of or what is meant by: To describe accurately, giving the meaning of, definition of.
- Describe Set out the factual details of. To give a written account to meet a specific requirement e.g. to give an account of something in terms of size, shape, height etc. May also be seen as ' give an account of'. Is often coupled with other command words such as : name and describe (name the feature and set out factual details of), describe and explain (set out factual details and give reasons for), describe how, when or where (directive toward a particular aspect for which a written account is required).
- Devise or plan Present a particular feature such as a form or questionnaire to meet a specific requirement or requirements.
- Draw Make a sketch of something. Often coupled with a *labelled diagram* (draw a diagram/illustration with labels to identify its features).
- Account for Give reasons for a particular feature.
- Factor Characteristics bringing about a certain result.
- Feature A characteristic of something.
- Giving your views Say what you think about.
- How In what way? To what extent? By what means/method? May be coupled by with *show how* (prove how, demonstrate how).

Explain or

Identify	Select, ascertain. Recognise a specific feature/features on an illustrative technique or in a written statement.	
Illustrating your Answer	Account for by using specific examples or diagrams. Often coupled with <i>by a labelled diagram</i> (use of an illustrative technique relating to specific aspect or aspects in a question to include relevant words or terms to identify particular features.)	
Insert or label	Place specific names or details to an illustrative techniques in response to a particular requirement.	
List	Identify and name a number of features to meet a particular purpose. Where a given number of features is specified, this should not be exceeded.	
Locate	Find the place of.	
Mark	Indicate or show a particular feature or features on an illustrative technique.	
Match	Identify two or more statements or illustrative techniques in which there is an element of similarity or inter-relationship.	
Measure	Implies that the quantity concerned can be directly obtained from a suitable measuring instrument.	
Name	State or specify or identify. Give the word or words by which a specific feature is known or give examples	
Pattern	A particular spatial arrangement or distribution of phenomena e.g. settlements. In another context one may be asked to <i>suggest a pattern</i> or <i>identify a pattern</i> or <i>trend</i>) (recognise a particular sequence or a number of sequences from an illustrative technique or from a written statement	
Reasons	Explain, justify, give the causes of.	
Refer to/ With reference to	Write an answer that uses some of the ideas provided in an illustrative technique or other additional material such as a case study.	
State	Set down in brief detail. To refer to an aspect of a particular feature by a short statement or by words or by single word.	
Study	Examine closely, pay special attention to, look carefully at and interpret.	
Suggest	Set down your ideas on or knowledge of. Propose, put forward for consideration. Often coupled with <i>why</i> (requires a statement or an explanatory statement referring to a particular feature or features.)	

Use/Using the information	
provided	Base your answer on the information provided (on the content of an illustrative technique or a written statement)
With the help of	
the information	Write an answer which uses some of the information in the illustrative technique as well as additional materials.
What	Used to form a question with selective ideas/ details/ factors.
Where	At what place? To what place? From what place?
Why	For what cause or reason?

10. GRADE DESCRIPTIONS

Grade descriptions are provided to give a general indication of the standards of achievement likely to have been shown by learners awarded particular grades. The description must be interpreted in relation to the content and skills. The grade awarded will depend in practice upon the extent to which the learner has met the assessment objectives overall. Shortcomings in some expects of the assessment may be balanced by better performances in others.

A Grade 1 learner is expected to:

- demonstrate a thorough knowledge of physical and human geographical phenomena and show a high ability in the comprehension of geographical concepts and processes and a deep understanding of complex relationships between physical and human geography;
- use, analyse and apply complex information and present well reasoned arguments in a concise manner, showing logical thought processes and a high degree of literacy to analyse the inter-relationships between people and their environment, and appreciate the dynamic nature of these relationships and the physical and cultural environmental systems in which they operate;
- evaluate and make balanced judgements and reach realistic, reasoned conclusions taking into account different points of view; show a thorough comprehension of and make judgements on economic, political, social and environmental issues given that human relationships with the environment are ever changing;
- understand the purpose and practice of geographical enquiry using some data from secondary sources; use appropriate techniques for gathering, processing, analysing and presenting the information; recognise that solutions or conclusions may not readily be drawn from the enquiry.

A Grade 3 learner is expected to:

- demonstrate a clear knowledge and understanding of the terminology within physical and human geography and demonstrate a sound comprehension of the importance of geographical ideas, concepts, generalisations and processes;
- analyse and interpret information from data in a wide variety of forms, to analyse interrelationships between people and their environment and to recognise the dynamic nature of changes in these relationships;
- make balanced judgement on economic, political, environmental and social issues which have a geographical dimension through a recognition of conflicting viewpoints and solutions;
- demonstrate an understanding how to plan and carry out geographical enquiry using data from primary and secondary sources; to use a range of techniques in gathering, analysing and presenting information in order to draw some conclusions.

A Grade 4 learner is expected to:

- demonstrate a knowledge of the terminology within physical and human geography and demonstrate a comprehension of important geographical ideas, concepts, generalisations and processes;
- use data in a variety of forms and to appreciate the inter-relationships between people and their environment and to recognise changes in these relationships;
- make judgements on economic, political, environmental and social issues which have a geographical dimension;
- demonstrate an understanding how to plan and carry out a geographical enquiry using data from primary and / or secondary sources; to apply geographical techniques in a limited way.



The National Institute for Educational Development P/Bag 2034 Okahandja NAMIBIA

Telephone: +64 62 502446 **Facsimile:** + 64 62 502613

E-mail: info@nied.edu.na Website: http://www.nied.edu.na

© NIED 2009