Republic of Namibia

MINISTRY OF EDUCATION, ARTS AND CULTURE

NAMIBIA SENIOR SECONDARY CERTIFICATE (NSSC)

GEOGRAPHY SYLLABUS
ORDINARY LEVEL
SYLLABUS CODE: 6137
GRADES 10 - 11

FOR IMPLEMENTATION IN 2019
FOR FIRST EXAMINATION IN 2020
Ministry of Education, Arts and Culture
National Institute for Educational Development (NIED)
Private Bag 2034
Okahandja
Namibia

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Geography NSSCO Syllabus Grades 10 - 11

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1. INTRODUCTION

The Namibia Senior Secondary Certificate Ordinary level (NSSCO) syllabus for Geography is designed as a two-year course for examination after completion of the Junior Secondary phase. 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 10 - 12) and the equivalent stages of non-formal education, as part of lifelong 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 rapidly 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 Namibian National guideline 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 the 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*
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

The aims are to encourage learners to acquire and develop:

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

Guided learning hours
The NSSCO level syllabuses are designed on the assumption that learners have about 130 guided learning hours per subject over the duration of two years, but this is for guidance only. The number of hours required to gain the qualification may vary according to local conditions and the learners’ prior experience of the subject. The National Curriculum for Basic Education (NCBE) indicates that this subject will be taught for 8 periods of 40 minutes each per 7-day cycle, or 6 periods of 40 minutes each per 5-day cycle, over two years.

Prior learning
Subject where learners are required to have done such specific subject in JS Grades 8-9. It is recommended that learners who are beginning this course should have previously studied Geography.

Progression
NSSCO levels are general qualifications that enable learners to progress either directly to employment, or to proceed to further qualifications. Learners who are awarded grades C to A* in NSSCO are well prepared to follow courses leading to Namibia Senior Secondary Certificate Advanced Subsidiary (NSSCAS) level Geography.

Support materials and approved textbooks
NSSCO syllabuses, question papers and examiner reports are sent to all schools. Assessment manuals in subjects, where applicable are sent to schools. Approved learning support materials are available on the Senior Secondary Textbook Catalogue for Schools.
5. LEARNING CONTENT

The content is divided into four broad themes:

1. Physical Geography
2. Economic activities and the use of resources
3. Population and Settlement Studies
4. Research Techniques and Map Reading Skills

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. Teachers are urged to use other case studies which may be relevant.
Theme 4 summarises skills which may also be assessed in each of Papers 1, 2 and 3.
### Theme 1: Physical Geography

<table>
<thead>
<tr>
<th>Topic</th>
<th>General Objectives</th>
<th>Specific Objectives</th>
</tr>
</thead>
</table>
| **1.1 The Earth’s structure** | • understand the structure of the earth and plate movements  
• understand how plate movements results into landforms | • name and describe the three layers that comprise the earth’s structure e.g. crust, mantle and core  
• differentiate between plate and plate tectonic  
• describe how convection current causes plate movement  
• distinguish between types of plate margins and plate movements: convergent/destructive, divergent/constructive and conservative/transform boundaries  
• describe the distribution of fold mountains, deep sea trenches, volcanic island arcs and mid-oceanic ridge  
• describe the formation of fold mountains  
• describe the shape of ash and cinder, lava and stratovolcano  
• describe the distribution of earthquakes and volcanoes in relation to plate margins  
• explain how earthquakes and volcanoes are formed and their impact on human beings and the environment  
• discuss strategies to manage the effects of earthquakes and volcanic eruption  
**Case studies**  
i. Tohoku (Sendai) Earthquake in Japan 2011 and associated Tsunami or Haiti earthquake 2010  
ii. Mayon Volcano in Philippines January 2018 | |
| **1.2 Weathering and Erosion** | • understand the processes of weathering and erosion | • distinguish between weathering and erosion  
• name and describe types of weathering and associated landforms;  
  - physical/mechanical  
  - chemical  
  - biological weathering  
• explain the main factors influencing the type and the rate of weathering, in terms of climate and rock features | |
### Topics

<table>
<thead>
<tr>
<th>General Objectives</th>
<th>Specific Objectives</th>
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</thead>
<tbody>
<tr>
<td><strong>Learners will:</strong></td>
<td><strong>Learners should be able to:</strong></td>
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<tr>
<td>• understand river processes and associated landforms</td>
<td>• identify and describe the main features of a drainage basin with reference to river channel, watershed area and catchment area</td>
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<tr>
<td>• understand the use of landforms/drainage basins by people</td>
<td>• describe the characteristics of a river valley in terms of the upper, middle and lower course (longitudinal profile)</td>
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<tr>
<td>• know how to conduct practical investigation on river channels including gradient, speed of flow, river depth and shape of bed loads</td>
<td>• describe the processes by which a river erodes its channel with reference to hydraulic action, corrosion, corrision and attrition</td>
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<td></td>
<td>• name and describe landforms associated with river erosion with reference to waterfalls, rapids, meanders, potholes and gorges</td>
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<td></td>
<td>• name and explain the processes by which a river transport its load including traction, saltation, suspension and solution</td>
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<td>• give 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</td>
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<td></td>
<td>• name and describe the landforms associated with the deposition of the load by a river: deltas, levees, marshes, floodplain, inland deltas/oshanas</td>
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<tr>
<td></td>
<td>• discuss the advantages and disadvantages of wetland areas such as floodplains and deltas</td>
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<td></td>
<td>• describe the impact of humans (degradation and management) on wetland areas</td>
</tr>
</tbody>
</table>

**Practical activity – examined as Alternative to Practicals – Paper 3**

- **Introduction to research skills**
- 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 bed loads.
- Present data collected in appropriate form using for instance maps, graphs, tables, isolines and flow charts.
<table>
<thead>
<tr>
<th>Topics</th>
<th>General Objectives</th>
<th>Specific Objectives</th>
</tr>
</thead>
</table>
| **1.4 Wind/Aeolian processes** | • understand wind processes and associated landforms | • name and describe the erosional processes of wind action, e.g. Abrasion, Deflation, Attrition  
• describe and explain the landforms associated with wind erosion such as rock pedestals, deflation hollow and desert pavements  
• name and describe the wind transport processes for example suspension, saltation and surface creep  
• describe and explain the landforms and features associated with wind deposition in Namibia, e.g. star dunes at Sossusvlei and seif dunes at Swakopmund |
| **1.5 Coastal/Marine processes** | • understand coastal/marine processes and associated landforms  
• know how to conduct practical investigation on coastal studies | • describe the features of a wave  
• explain how a wave is generated  
• distinguish between swash and backwash  
• distinguish the types of waves such as constructive and destructive and explain the energy of the waves, swash and backwash  
• name and describe the erosional processes of wave action such as corrasion, hydraulic action, corrosion and attrition  
• describe and explain erosional landforms such as cliffs, stacks, arch, stump, caves, wave-cut notch, wave-cut platform, headland and bays  
• describe the transportation of materials along the coastline by means of longshore drift  
• explain the formation of landforms as a result of onshore and offshore movement  
• name and describe depositional landforms such as beaches, bars, tombolo and spits |
<table>
<thead>
<tr>
<th>Topics</th>
<th>General Objectives Learners will:</th>
<th>Specific Objectives Learners should be able to:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coastal/Marine processes (continued)</td>
<td></td>
<td>• name and describe hard and soft engineering of coastlines with reference to groynes, seawall, gabions, revetments (hard) and beach nourishment, land management (soft) etc.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Practical activity – examined as Alternative to practical – Paper 3:</td>
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<tr>
<td></td>
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<td>- establish the profile of a beach, by measuring the angle of beach slope</td>
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<td>- measure the size and shape of pebbles,</td>
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<td>- measure the movement of beach material and the direction of the waves. (For beach studies a knowledge of the equipment is required including, for example, quadrats for selecting pebbles on a beach, a clinometer to determine the angle of slope of the beach and a pebbleometer or ruler and callipers to measure pebbles)</td>
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<td></td>
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<td>- present data collected in appropriate form using for instance maps, graphs, tables, isolines and flow charts</td>
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<tr>
<td>Topics</td>
<td>General Objectives</td>
<td>Specific Objectives</td>
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</table>
| 1.6 Weather and Climate | • understand the difference between weather and climate  
• know the weather instruments used to measure weather elements  
• know how to use weather instruments to record weather elements | • distinguish between weather and climate  
• describe and explain the characteristics, siting, precautions, and the use of a Stevenson screen  
• name and describe the instruments used to measure weather elements such as: the rain gauge, minimum and maximum thermometer/six’s thermometer, wet and dry bulb thermometer/hygrometer, barometer/barograph, anemometer, wind vane and sunshine recorder  
• demonstrate the ability to measure, record and analyse weather statistics such as: temperature, rainfall, humidity, air pressure, cloud cover, sunshine, wind speed and wind direction  
• describe weather associated with High and Low pressure system  
• name and explain types of rainfall (convectional, cyclonic and relief rainfall)  
• analyse synoptic charts and interpret weather satellite image  
• describe the factors influencing climate such as latitude, altitude, ocean current, distance from the sea, prevailing wind, pressure systems |

Practical activity – examined as Alternative to practical – Paper 3:
- Consideration should be given to 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 known.
- Learners should be able to plan and design a recording sheet to show recordings over a number of days and present weather data by means of climatic graphs, diagrams iso-maps and wind roses.
<table>
<thead>
<tr>
<th>Topics</th>
<th>General Objectives</th>
<th>Specific Objectives</th>
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</table>
| **1.7 Climatic regions and natural vegetation** | • understand the influence of climate on natural vegetation and the relationship between human activities and natural vegetation | • identify and locate on a world map the following vegetation regions:  
  - tropical rain or equatorial forest (evergreen)  
  - tropical grassland (savannah)  
  - tropical deserts  
• 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 following headings:  
  - temperature  
  - rainfall  
  - wind  
  - cloud cover  
  - humidity  
• analyse and interpret the climatic graphs showing the main characteristics of temperatures and rainfall of each of the regions  
• discuss and analyse the causes and consequences of rapid and progressive clearance of natural vegetation over time such as desertification and deforestation  
• discuss and analyse forest management techniques such as agro-forestry, reforestation, sustainable harvesting, etc.  

Case studies:  
(i) Management of tropical grassland in Kenya  
(ii) Reforestation in Namibia
### Theme: 2. Economic activities and the use of resources

<table>
<thead>
<tr>
<th>Topics</th>
<th>General Objectives</th>
<th>Specific Objectives</th>
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</table>
| **2.1 Industrial system** | • understand different types of industries  
• understand the role of fishing industry as a case study in the Namibian economy under the following heading: (a), (b) and (c) | • 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  
**a) primary activities**  
• describe the physical factors influencing the availability of raw material such as ocean currents, upwelling, marine food chain, length of the coast  
• describe the exploitation of the fish resource 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 |

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<th>Topics</th>
<th>General Objectives</th>
<th>Specific Objectives</th>
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<tbody>
<tr>
<td>Industrial system</td>
<td>Learners will:</td>
<td>c) <strong>Tertiary activities</strong></td>
</tr>
</tbody>
</table>
| *(Continued)*                  |                     | • discuss 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 policies for sustainable development |
|                                |                     | **Case study:** The fishing sector in the economies of Walvis Bay and Luderitz in Namibia |
### Topics

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<tr>
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<th>General Objectives</th>
<th>Specific Objectives</th>
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<tbody>
<tr>
<td>2.2 Agriculture</td>
<td><strong>Learners will:</strong> understand the different agricultural systems in Namibia and SADC countries</td>
<td><strong>Learners should be able to:</strong> describe agriculture as a primary activity, 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, 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, analyse the strategies to improve the output in large-scale commercial farming such as GM crops, HYVs, irrigation, fertilisers, pesticides etc., 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</td>
</tr>
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</table>

**Case studies:**
(i) *Subsistence farming in Northern Namibia*
(ii) *Livestock commercial farming in Central Namibia*
(iii) *Maize triangle*
<table>
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<th>Topics</th>
<th>General Objectives</th>
<th>Specific Objectives</th>
<th>Case studies:</th>
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<tbody>
<tr>
<td>Agriculture (Continue)</td>
<td>Learners will:</td>
<td>Learners should be able to:</td>
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<tr>
<td></td>
<td></td>
<td>• discuss economic, climatic and political factors and their effects upon shortages of food, e.g. capital investment, incentives, transport difficulties, war, etc.</td>
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<td>• discuss shortages of food as related to natural problems such as soil fertility, droughts, floods, pests and diseases</td>
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<td>• discuss the problems which are related to food aid in areas of food shortages</td>
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<td>• discuss the negative impacts of agriculture on the environment, for example, soil erosion, overgrazing/overstocking, salination, bush encroachment and pollution</td>
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<td></td>
<td>• analyse and discuss the strategies for sustainable agriculture for example, plant breeding, mixed cropping, use of organic fertiliser</td>
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Case studies:
(i) Farming practices leading to desertification in Namibia
Sustainable Agriculture in Namibia
(ii) 2011 drought in the Horn of Africa/Dafur region
(iii) Large scale sugar farming and food shortages in Swaziland
<table>
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<th>Topics</th>
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<td>Learners will:</td>
<td>Learners should be able to:</td>
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<tr>
<td>2.3 Leisure and tourism</td>
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<td></td>
<td>• appreciate the importance of leisure activities and tourism to the economy of Namibia</td>
<td>• describe tourism as a tertiary activity</td>
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<td></td>
<td></td>
<td>• define the terms leisure and tourism</td>
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<td></td>
<td></td>
<td>• describe the types of leisure and tourist activities in Namibia</td>
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<td>• describe the difference between local/domestic tourism and international tourism</td>
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<td></td>
<td>• 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</td>
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<td>• 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</td>
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<td>• 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</td>
</tr>
<tr>
<td><strong>Case studies:</strong></td>
<td></td>
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<tr>
<td>(i) Etosha National Park in Namibia</td>
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<tr>
<td>(ii) Tourism in Mauritius</td>
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<tr>
<td><strong>Practical activity – examined as Alternative to practical – Paper 3:</strong></td>
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<tr>
<td>Consideration should be given to learners to investigate the following: impact of tourism or a leisure facility on the economy and environment through conducting:</td>
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<tr>
<td>- <strong>Environmental quality impact assessments:</strong> design of a bi-polar grid and decisions about the categories to include, use of the grid to make judgements of the impact of tourism or leisure facility and presentation of data in a graphical form. Consideration should also be given to the time of day and number of locations needed for the environmental quality impact assessment to produce meaningful results.</td>
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<tr>
<th>Topics</th>
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<th>Specific Objectives</th>
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<tbody>
<tr>
<td>Leisure and Tourism (Continued…)</td>
<td>Learners will:</td>
<td><strong>Footpath erosion surveys</strong>: understanding of how to measure footpath erosion including decisions on sampling and measuring techniques as well as presentation from data. Consideration should be given to the relationship between amount of erosion and distance from a tourism hot spot or leisure facility.</td>
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<td>- <strong>Surveys</strong>: of business and people to make judgements of the economic and seasonal impact of tourism. Consideration should be given to the design of questions, suitable sampling techniques as well as methods of presentation.</td>
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<td>Topics</td>
<td>General Objectives</td>
<td>Specific Objectives</td>
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<td></td>
<td><strong>Learners will:</strong></td>
<td><strong>Learners should be able to:</strong></td>
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<tr>
<td>2.4 Energy sources</td>
<td>• understand the different processes involved in the production of power using renewable fuels and non-renewable fossil fuels with reference to SADC and other part of the world</td>
<td>• distinguish between renewable sources and non-renewable/fossil sources of energy</td>
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<td>• describe the significance of non-renewable energy in terms of its availability and the contribution made by coal, oil, natural gas and wood</td>
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<td>• describe the growing significance of renewable energy supplies to reduce dependence on fossil fuels, geothermal, waves, tides, running water, solar and biogas</td>
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<td>• describe the factors influencing the location/siting of hydroelectric power</td>
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<td>• describe the process of generating hydro-electric power (H.E.P)</td>
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<td>• explain the advantages and disadvantages of generating power from HEP, coal, nuclear power and solar energy</td>
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<td>• describe factors influencing the location of wind and solar energy</td>
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<td>• 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</td>
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<td></td>
<td>• describe and explain the economic and development context for Namibia’s energy policy</td>
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<td>• discuss how Namibia’s energy sector is integrally linked to the SADC region and global trade in oil</td>
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</table>

**Case studies:**
(i) Illustrate the danger of nuclear power by using the examples of nuclear accidents such as Fukushima in Japan
(ii) Geothermal power in Iceland
(iii) HEP in China
<table>
<thead>
<tr>
<th>Topics</th>
<th>General Objectives Learners will:</th>
<th>Specific Objectives Learners should be able to:</th>
</tr>
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<tbody>
<tr>
<td>2.5 Utilisation and management of water resources in Namibia</td>
<td>• understand sustainable use and management of water resources in Namibia</td>
<td>• discuss the uses of water for agriculture, domestic and industrial purposes with recognition of competition for the use of water which require careful management in certain areas&lt;br&gt;• identify sources of water in Namibia such as ground water and surface water&lt;br&gt;• explain the significance of ground water and surface water to human activities&lt;br&gt;• discuss how the processes operating within the hydrological cycle may affect supplies, with special reference to causes and effects of flooding and drought&lt;br&gt;• discuss methods of water supply such as reservoirs, dams, wells, boreholes, desalination and recycle&lt;br&gt;• explain the causes and the consequences of water pollution on the natural and human environment</td>
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<tr>
<td>2.6 Utilisation and management of wildlife animals in Namibia</td>
<td>• understand the need for careful sustainable use of wildlife animals as a resource in Namibia</td>
<td>• identify and locate on a map the major areas of wildlife conservation and management in Namibia i.e. Cheetah foundation, Etosha National Park, Conservancies in the Northern parts of Namibia, etc.&lt;br&gt;• discuss the importance of wildlife animal as a resource to Namibia’s economy&lt;br&gt;• discuss the impact of wildlife animals on the environment&lt;br&gt;• discuss the impact of environmental change on the wildlife animals such as desertification, deforestation and global warming&lt;br&gt;• discuss the conflicts between the management of wild animals and other land use activities&lt;br&gt;• 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 Namibia&lt;br&gt;<strong>Case studies:</strong>&lt;br&gt;(ii) Development of ecotourism in Namibia, including the need to encourage and protect biodiversity</td>
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### Theme: 3. Population and Settlement Studies

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<tr>
<th>Topics</th>
<th>General Objectives</th>
<th>Specific Objectives</th>
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<tr>
<td></td>
<td>Learners will:</td>
<td>Learners should be able to:</td>
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<tr>
<td><strong>3.1 Population Studies</strong></td>
<td>• understand population dynamics and their social, economic and environmental impact</td>
<td>• describe the reasons for the rapid increase in the world’s population in recent times, “the population explosion”</td>
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<td>• define the main components influencing population growth: birth rate, death rate and migration</td>
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<td>• describe the relationship between population growth and resources and explain why problems may result in some areas of over-population and under-population</td>
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<td></td>
<td>• 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</td>
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<td></td>
<td></td>
<td>• 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, dependency ratio, standard of living, life expectancy and infant mortality</td>
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<td>• describe and explain different stages of the Demographic Transition Model</td>
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<td>• identify and discuss with reasons the different types of population structures as shown by age-sex pyramids</td>
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<td>• describe population pyramids and relate population change to the different stages of the Demographic Transition Model</td>
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<td>Topics</td>
<td>General Objectives</td>
<td>Specific Objectives</td>
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<td><em>Learners will:</em></td>
<td><em>Learners should be able to:</em></td>
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</table>
|        |                    | - 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 such as rural-urban migration as well as to international movements, both voluntary and involuntary  
|        |                    | - analyse and discuss the environmental problems which are associated with population growth  
|        |                    | - analyse and discuss strategies for managing population growth in relation to the pace of economic development and environmental sustainability |
| Population Studies (continued) | | Case studies: |
| | | (i) Population policy and control in China  
| | | (ii) Population change and structure of population of Windhoek in Namibia  
| | | (iii) Japan population policy |
| | | Practical activity – examined as Alternative to Practical – Paper 3  
| | | Consideration should be given to learners to investigate the impact of population on the economy and environment through rural depopulation and growth of informal settlement: |
| | | - Environmental quality impact assessments: design of a bi-polar grid and decisions about the categories to include, use of the grid to make judgements of the impact of rural depopulation and the growth of informal settlements. Consideration should also be given to the time of day and number of locations needed for the environmental quality impact assessment to produce meaningful results.  
<p>| | | - Surveys: of business and people to make judgements of the economic, social and environmental impact of population change’. Consideration should be given to the design of questions, suitable sampling techniques as well as methods of presentation. |</p>
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<tr>
<th>Topics</th>
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<th>Specific Objectives</th>
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<tr>
<td>Population Studies (continued)</td>
<td>Learners will:</td>
<td>Learners should be able to:</td>
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<td>- <strong>Census data</strong>: use of Namibia census data as a secondary source to examine changes in different regions which are linked to population. Candidates should use techniques to present this data for interpretation including graphs and choropleth maps. An example activity could include producing a choropleth map for annual growth rate per region and comparing this to rates of urban and rural population and other census data.</td>
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<td>Topics</td>
<td>General Objectives</td>
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<tr>
<td>3.2 HIV and AIDS</td>
<td>understand the socio-economic impact of HIV and AIDS in Namibia</td>
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<tr>
<th>Specific Objectives</th>
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<tbody>
<tr>
<td>define HIV and AIDS</td>
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<tr>
<td>interpret Namibia’s HIV and AIDS statistics and account for its spatial distribution</td>
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<tr>
<td>describe the demographic and socio-economic impact of HIV and AIDS in Namibia</td>
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<tr>
<td>discuss the efforts being taken by the government, local authorities, nongovernmental organisations, churches, private sector and individuals to address the HIV and AIDS problem in Namibia</td>
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<td>investigate how the following measures will have an impact on population growth and structure and the economy of Namibia:</td>
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<td>- condom use</td>
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<td>- introduction of antiretroviral drugs to infected people</td>
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<td>Topics</td>
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| 3.3 Settlement Studies | • understand the dynamic nature of settlements in:  
- LEDCs (Less Economically Developed Countries)  
- 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, shopping areas/strip malls, 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 to these problems  
• 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 |  

Practical activity – examined as Alternative to practical – Paper 3:  
Traffic counts  
- sites pre-selected  
- decide what? e.g all traffic or lorries  
- prepare recording sheets in advance  
- different people at different places at the same time to compare traffic flows and level of congestion  
- record information- tally method
<table>
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<td>Learners will:</td>
<td>Learners should be able to:</td>
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**Pedestrian counts**
- mainly in the CBD and shopping centre
- counts must start and end at the same time e.g. from 10h00-12h00
- for the collection of reliable and useful data
- record the information
- show it graphically- isolines

**Shopping survey**
- aim to complete a survey of the shopping facilities available in a particular area of a town e.g. CBD, Windhoek-areas along Independence Avenue and Town Square, Wernhill Park or Groove Mall

**Transect of Urban Function**
- The main urban functions are: residence, manufacturing, commerce, administration, education, religion and professional services. In the Central Business District (CBD) the main functions are: commercial (shops, etc.), finance (banks), administration (Municipality, etc.) and professional services (doctors, lawyers, etc.) which are located in Offices.
- They occur here because it is the most central and accessible part of the town and most people need to come here to work and shop. A study can be conducted to observe and record the types of buildings in the CBD area. The buildings accommodate the various functions which characterize the CBD.

**case studies**
- Urbanisation in Mumbai and Mumbai Urban Transport Project
4. **Research techniques and map reading skills**  
*It is important that these skills are not taught in isolation but are integrated into the teaching of other three themes.*

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<tr>
<th>Topics</th>
<th>General Objectives</th>
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<tr>
<td></td>
<td>Learners will:</td>
<td>Learners should be able to:</td>
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</table>
| 4.1 Research skills | • know how to carry out research projects (geographical enquiries) | • what is a geographical enquiry  
• identify a problem area/research topic and state the objectives  
• apply methods of data collection such as interviews, questionnaires, sampling, observations, simple surveys (counts and measurements) document studies and recording sheet  
• differentiate between random, systematic and stratified sampling  
• demonstrate the ability to use and access information from Information Technology (where available) for data analysis and interpretation  
• describe the advantages and disadvantages of data collection methods  
• demonstrate the ability to analyse and present data collected in appropriate form using for instance maps, graphs, tables, isolines and flow charts  
• make effective conclusions and evaluations, suggesting solutions were appropriate |
| 4.2 Map reading skills | • know how to read and interpret various topographical maps | • 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 bearings  
• identify landforms on maps using contours and symbols  
• describe human activities in relation to the features on a map  
• recognise and interpret horizontal/oblique photographs (landforms, natural vegetation, land-use and settlement)  
• locate features on a map using latitude and longitude coordinate system |
6. **ASSESSMENT OBJECTIVES**

The four assessment objectives for Geography are:

A **Knowledge with understanding**

B **Analysis**

C **Judgment and decision making**

D **Investigation (enquiry, practical and presentation skills)**

The following are the descriptions of each of the assessment objectives:

**A. Knowledge with understanding**

Learners should be able to demonstrate a knowledge and understanding of:

A.1 the wide range of physical and human processes shaping development of:
   (a) physical, political, economic, social and cultural environments and their associated effects on the landscape;
   (b) spatial patterns and interactions which are important within such environments;

A.2 the inter-relationships between people, their activities and the subsequent impacts on the environment and an ability to seek explanations for them;

A.3 the importance of scale (local, regional or global) and the time at which spatial distributions and the working of the systems are considered;

A.4 the changes which occur through time in places, landscapes and spatial distribution

**B. Analysis**

Learners should be able to demonstrate the ability to:

B.1 extract and interpret geographical information from maps, graphs, tables, cartoons, diagrams, photographs, computers and other relevant geographical sources;

B.2 analyse geographical information;

B.3 infer trends and consequences related to socio-geographical interactions;

B.4 illustrate using labelled sketches.

**C. Judgment and decision making**

Through their geographical education learners should be able to:

C.1 reason and make judgements (including evaluation and conclusions) which demonstrate where appropriate:
   (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 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 new knowledge and experiences.

C.2 recognise the role of decision making within a geographical context as affected by:
   (a) the physical, cultural, economic and political contexts in which decisions are made;
   (b) the values and perceptions of groups and individuals;
   (c) the choices available in the process of decision making and the influences and constraints within which they operate;

C.3 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 formulate a research topic;
D.2 use suitable quantitative and qualitative techniques for observing, collecting, classifying, presenting, analysing and interpreting data;
D.3 extract and interpret geographical information from a variety of relevant geographical sources such as maps and plans of various scales; audio-visual materials, internet and computer software, documentary materials and statistics; graphs; tables; cartoons
D.4 depict the information in appropriate forms using maps, diagrams, etc.
D.5 make informed judgements and decisions;
D.6 select, use and present geographical information in an appropriate form and effective manner.

7. SCHEME OF ASSESSMENT

All learners will take papers 1, 2, 3.

<table>
<thead>
<tr>
<th>Grades available A*-G</th>
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<tbody>
<tr>
<td><strong>Paper 1</strong></td>
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<tr>
<td>Written</td>
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<tr>
<td>The paper will consist of 6 questions, two each from Sections A: Physical Geography, B: Economic activities and the use of resources, and C: Population and Settlement Studies. Answer three questions, choosing one from each section. Questions will be resource-based and involve problem solving and free response writing. This paper will provide as assessment of assessment objectives A, B and C. <strong>The weighting of this paper is 37.5%</strong></td>
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| **Paper 2**  | 1 hour 45 minutes | 65 marks |
| Written       |                |          |
| Learners must answer all the questions. This paper will be largely skills-based and candidates will not require knowledge of specific places, but will be expected to apply some knowledge of topics. This paper will test a learner’s ability to handle various ways of depicting geographical information. The questions will be neutral in that they do not require specific information of place. Learners will be able to demonstrate the skills of analysis and interpretation and application of graphical techniques as appropriate. One question will be specifically based on a large-scale (1:50 000) topographical map, with full colour map from any country in SADC. The map will always be presented with a full key. This paper will provide an assessment of assessment objectives A, B and C. **The weighting of this paper is 32.5%** |

| **Paper 3**  | 2 hours | 60 marks |
| Written       |          |          |
| The paper consists of two questions (i.e. one physical and one human) based on techniques of geographical investigation. Learners are expected to answer all questions. Coursework will not become operational as an option until necessary materials and training of teachers are in place but the methodology of teaching geographical enquiry skills and techniques will be encouraged. This paper will provide a complementary assessment of the assessment objectives tested by Paper 1 with an emphasis on the investigative assessment objective D. **The weighting of this paper is 30%** |
| **Topics to be assessed in each theme from 2020-2024 will be highlighted under explanatory notes to teachers, page 30** |
8. SPECIFICATION GRID

The following grid summarises the connection between the Assessment objectives and the paper.

<table>
<thead>
<tr>
<th>Assessment Objectives</th>
<th>Weighting %</th>
<th>Paper 1 Marks</th>
<th>Paper 2 Marks</th>
<th>Paper 3 Marks</th>
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<tr>
<td>A</td>
<td>30</td>
<td>40</td>
<td>8</td>
<td>12</td>
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<td>B</td>
<td>41</td>
<td>20</td>
<td>50</td>
<td>12</td>
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<td>C</td>
<td>17</td>
<td>15</td>
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<td>12</td>
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<td>D</td>
<td>12</td>
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<td>24</td>
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<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
<td><strong>75 marks</strong></td>
<td><strong>65 marks</strong></td>
<td><strong>60 marks</strong></td>
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**Total weighting per paper**

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<tr>
<th></th>
<th>Paper 1 Marks</th>
<th>Paper 2 Marks</th>
<th>Paper 3 Marks</th>
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<td><strong>37.5</strong></td>
<td><strong>32.5</strong></td>
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9. EXPLANATORY NOTES TO THE TEACHERS

Paper 1
Requirements
Questions on the paper will be resource based. The resources will be presented to learners for analysis and interpretation in answering questions or part questions. Some of the information required to answer these part questions will be contained within the resource itself.

The resources offered may be photographic, map extracts, sketch maps, drawings, diagrams, graphs, text extracts, statistics and tables of data. Resource materials may be selected from Namibia, SADC and various world areas. As a result learners may be dealing with areas with which they are not familiar. The resource use does not require specific local or regional knowledge. This should be stressed to the learners as they may be influenced in their question selection by the nature/location of the resource included.

Throughout the study of the learning content for Paper 1, it is stressed that for Paper 1, reference should be made to appropriate case studies to illustrate the themes. It is suggested that much of the preparation of themes could be undertaken by case studies. Some case studies could incorporate a number of concepts and assessment objectives and present learners with an integrated approach to the study of the learning content.

A case study may be selected because it is related to one or more of the following:
- the local area;
- national or international illustration;
- a contemporary development such as the occurrence of a natural hazard in part of a world;
- a particular illustration with which the teacher is familiar;
- a presentation in a newspaper, on video, film or a well-documented illustration in a textbook.

A case study may also be based upon a field study undertaken as part of the work for Paper 3 (geographical enquiry). Whilst specific questions will not be set in Paper 1 based upon field work, learners may use this information to illustrate answers.

The essence of a good case study is that it provides learners with details of a particular line of enquiry which can be profitably used in answers to certain questions on Paper 1. Some part questions on the paper will request that reference is made to information from specific case studies made by learners and opportunity is also provided for learners to volunteer such details in answering such part questions.

It is important for learners to comply with the rubric. Only three questions are to be selected. Sometimes within individual questions a choice is provided, e.g. answer either …or….. . It is very important that learners make the correct choice and do not answer more than required.

Learners are advised to heed closely the sub marks printed on the question paper. These are included in order to guide learners as to the amount of detail and length of response anticipated.
Paper 2
Requirements
This paper will be largely skills-based and candidates will not require knowledge of specific places, but will be expected to apply some knowledge of topics and will test a learner’s ability to handle various ways of depicting geographical information e.g. topographical maps from any SADC country on the scale of 1: 50000, other maps, diagrams, graphs, tables of data, written material, photographs and pictorial materials. Learners must answer all questions. The questions will be neutral in that they will not require specific knowledge of place. Learners will be able to demonstrate the skills of analysis, interpretation and application of graphical and other techniques as appropriate.

Map work questions: The large scale maps chosen for examination purposes will be on a scale of 1:50 000 and will always contain a full key. The map presented will be a full colour map from any SADC country.

Learners should recognise that one third of the marks available on this paper are awarded to the map work question and, therefore, it is essential that they become proficient in map reading skills to enable them to describe and analyse topographical maps. Learners should be able to use a co-ordinate reference system and be able to give and to read longitudes and latitudes coordinate system to locate places. Learners should be able to give compass direction and the bearing from grid north of one place from another. It is, therefore, important that they have protractors in the examination room. They should be able to measure horizontal distances, use linear scale and read contours to calculate differences in height. The information so gained should enable learners to calculate gradients between two places using the formula:
Vertical interval (Difference in height) divided by Horizontal equivalent (Horizontal distance)

It should be noted that both measurements must be made in the same units before the calculation can be made. Cross-sections may be set for interpretation but learners will not be asked to construct them.

Learners should be able to translate the scale of a feature by describing its size and shape in real terms. They should also be proficient in using the key to the map to enable them to identify features on the map.

Learners should be able to draw inferences about the physical and human landscape by interpretation of map evidence such as patterns of relief, drainage, settlement, communications and land-use.

Learners are advised to practice dividing a map into broad areas of markedly differing relief such as low river valleys and steep-sided upland and to give brief descriptions of these using appropriate geographical terms (such as ridge, plateau, scarp, flood plain) and simple adjectives showing an appreciation of their nature (such as broad, flat, steep-sided, deeply cut, gently sloping). To interpret these maps learners should be able to recognise essential differences in density of drainage, patterns of streams and gradients or sizes of streams in relation to the relief.

They should be able to describe the physical features of coastlines and the shape and the form of river channels as they are shown on large scale maps. Like-wise, practice in describing land use variation in association with differing types of relief should be part of the preparation or the examination.
The interpretation of human features will also require learners to recognise and analyse patterns of settlement (dispersed, nucleated, linear) and learners should be able to draw sketch maps illustrating these patterns. Learners should be able to interpret and describe features of urban morphology as represented on large scale maps. Learners should be able to describe the functions of and services provided by settlements. They should also be able to give reasons for the site and growth of individual settlements. Communication networks should be recognized in terms of their type and density in relation to physical and human features.

Explanation should be based clearly on map evidence showing the interaction between humans and their physical environment e.g. differences in land-use between upland and lowland, differences between dense settlement on river plains and sparse settlement on steep upland slopes, differences in land-use within a town.

Note: It must be stressed that all answers to this question must be based on map evidence only.

Maps, Diagrams, Graphs, Tables of data, Written Material
Questions will be set using some or all of these resources. They should be regarded as important ways of representing geographical data. They may be used to illustrate a basic principle and it is essential that learners should be directed towards their interpretation. For example, a population pyramid may be used to illustrate the age and sex structure of a country. With such a resource learners may be required to describe the broad features of the population structure to show comparisons and contrasts between the male and female populations, the working and non-working population and the young and old age groups. Maps based on global and other small scales may be used and learners may be asked to identify and describe significant features of the human and physical landscape on them, e.g. population distribution, population movements, transport networks, settlement layout, relief and drainage. Learners may be asked to recognise patterns and deduce relationships.

Learners will be expected to be able to extract specified geographical information from simple graphs, diagrams, tables of data and written material. Pie graphs may be used and learners may be asked to describe variations and identify trends in information from two dimensional or more complex graphs. Graphs may show, for example, temperature, birth rate, death rate, energy statistics, rainfall distribution and river discharge.

Learners may be required to plot information on graphs when axes and scales are provided. Data tables may provide information on physical phenomena, economic activities, population-settlement, agricultural and manufacturing output and learners may be asked to describe and analyse features and trends from the data provided. They may be asked to suggest an appropriate form of graphical representation of the data provided. Written material may be extracts from textbooks, periodicals and newspapers and learners will be expected to show an understanding of the material presented.

Photographs and pictorial materials (including field sketches)
Oblique photographs will be used. Learners should be able to describe human and physical landscapes (landforms, natural vegetation, land-use and settlement) and geographical phenomena from photographs. Only simple descriptions will be required. Learners may be expected to add specified details on associated maps or other materials provided, thereby applying geographical knowledge and understanding. Learners may also be asked to use supporting material in conjunction with large scale maps to identify, describe and analyse features and thereby recognise patterns and deduce trends.
Equipment: It is essential that candidates have the following equipment with them in the examination room: a pencil, eraser, ruler, set square and protractor.

Paper 3
In this paper, learners will be set a series of investigative tasks 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.

Topics to be included for investigative work are:

Theme 1: landscapes and landform processes (river processes, coastal/marine processes), weather, climate and natural vegetation
Theme 2: agricultural system, industrial system, leisure and tourism, energy and water resources
Theme 3: population studies, HIV and AIDS and settlement studies

Recommended procedures for study
Learners should be made aware of the general requirements for this paper before studies of particular topics are introduced. Reference should be made to the range of inputs involved in a geographical study such as formulating aims and hypotheses, using enquiry skills to collect data, using illustrative techniques to present data, making analyses of data and the formulation of conclusions. Reference should also be made to the types of enquiry skills involved in studies. An introduction to this paper could be made by choosing a detailed study from any of the syllabus themes at an appropriate stage after the teaching of a specific topic for paper 1. Each topic which is selected should enable a significant range of the skills relevant to Paper 3 to be considered in depth.

Data collection
An understanding of the range of 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.

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
Knowledge of illustrative techniques is required to present data across topics for Paper 3. 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.

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.

NSSCO Geography Syllabus, NIED 2016
Questionnaires
Reference should be made to the topics across the themes in the syllabus for which questionnaires 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, various lengths of questions, numbers of questions, locations and times to conduct a questionnaire, sampling methods and the size of the sample and the importance of a pilot survey. Studies should be related to the variety of themes in the syllabus for which questionnaires would be suitable, including ways of determining 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 environmental issues. Studies should also include the use of questionnaires to obtain information from individual or small groups of individuals relating to a particular issue, e.g. the impact of building a new road or a bypass. With reference to items in the Curriculum content this could include pedestrians, motorists, residents, 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 1 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 2, the topics could include agricultural land-uses in a limited area, the layout of a farm, selected characteristics of a tourist resort, or the competing demands for supplies of water in a locality. For Theme 3, studies could include land-use in urban areas such as layout, 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 be also linked to the collection, presentation and analysis of data. Methods to record data collection such as maps and record sheets as well as the use of different kinds of samples should be considered where relevant.

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. Appropriate methods for the collection of data including, for example, instructions to recorders of counts, 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 specific data 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. The methods to calculate from relevant data features such as the speed of flow, cross-sectional area of a river channel and discharge should be understood and used if appropriate. Beach studies should include methods used and the equipment required to establish 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 the angle of
slope of a river valley and a pebbleometer or ruler and callipers to measure pebbles. Methods used at a weather station to record the weather using observation and instruments should be studied in order to describe patterns of weather. Consideration should be given to 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 known. Students should be able to plan a record sheet to show recordings over a number of days and also methods such as temperature graphs and wind-roses to show specific information. Local studies involving weather readings and recordings should provide a useful foundation especially if the practical aspects of data collection are included.

**External examination**

<table>
<thead>
<tr>
<th>Examination year</th>
<th>Physical Geography</th>
<th>Human Geography</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020</td>
<td>River Processes</td>
<td>Settlement Studies</td>
</tr>
<tr>
<td>2021</td>
<td>Coastal/Marine Processes</td>
<td>Settlement Studies</td>
</tr>
<tr>
<td>2022</td>
<td>Weather and Climate</td>
<td>Leisure and Tourism</td>
</tr>
<tr>
<td>2023</td>
<td>River Processes</td>
<td>Population Studies</td>
</tr>
<tr>
<td>2024</td>
<td>Coastal/Marine Processes</td>
<td>Settlement Studies</td>
</tr>
</tbody>
</table>
10. GLOSSARY FOR TEACHING AND ASSESSMENT

It is hoped that this glossary of terms used in the Geography papers (which are relevant only to Geography) will prove helpful to learners. 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 of two elements or themes, candidates 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 describe accurately, giving the meaning of, definition of something. Is often coupled with terms like state the meaning of or what is meant by

Demonstrate to describe, explain, or illustrate by examples, specimens or experiments

Describe set out the factual details of something. 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

Differentiate recognize or ascertain what makes (something or someone) different

Distinguish show the difference between one or more variable

Draw make a sketch of something. Often coupled with a labelled diagram (draw diagram/illustration with labels to identify its features)

Explain / Account for give reasons for a particular feature
<table>
<thead>
<tr>
<th>Factor</th>
<th>characteristics bringing about a certain result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feature</td>
<td>a characteristic of something</td>
</tr>
<tr>
<td>Giving your View</td>
<td>say what you think about something</td>
</tr>
<tr>
<td>Identify</td>
<td>select, ascertain. recognise specific feature/features on an illustrative technique or in a written statement</td>
</tr>
<tr>
<td>Illustrating</td>
<td>your answer account for your answer by using specific examples or diagrams. Often coupled with by a labelled diagram (use of an illustrative technique relating to specific aspect or aspects in a question to include relevant words or terms to identify particular features)</td>
</tr>
<tr>
<td>Insert or label</td>
<td>place specific names or details to an illustrative technique in response to a particular requirement</td>
</tr>
<tr>
<td>List</td>
<td>identifies and names a number of features to meet a particular purpose. Where a given number of features are specified this should not be exceeded</td>
</tr>
<tr>
<td>Locate</td>
<td>find the place of</td>
</tr>
<tr>
<td>Mark</td>
<td>indicate or show on an illustrative technique a particular feature or features</td>
</tr>
<tr>
<td>Match</td>
<td>identify two or more statements or illustrative techniques in which there is an element of similarity or inter-relationship</td>
</tr>
<tr>
<td>Measure</td>
<td>implies that the quantity concerned can be directly obtained from a suitable measuring instrument</td>
</tr>
<tr>
<td>Name</td>
<td>state or specify or identify. Give the word or words by which a specific feature is known or give examples which illustrate a particular feature.</td>
</tr>
<tr>
<td>Pattern</td>
<td>a particular spatial arrangement or distribution of phenomena e.g. settlements. In another context one may be asked to suggest a pattern or identify a pattern or trend (recognise a particular sequence or a number of sequences from an illustrative technique or from a written statement).</td>
</tr>
<tr>
<td>Reasons</td>
<td>explain, justify, and give the causes of</td>
</tr>
<tr>
<td>Refer to or with reference to</td>
<td>write an answer which uses some of the ideas provided in an illustrative technique or other additional material such as a case study</td>
</tr>
</tbody>
</table>
State set down in brief detail. To refer to an aspect of a particular feature by a short statement or by words or by a single word

Study examines 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 why (requires a statement or an explanatory statement referring to a particular feature or features).

Use or 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 information in 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

What differences use comparative statements to assess the changes involved. Factual descriptions are not

Where at what place? To what place? From what place?

Why for what cause or reason?

11. Glossary of key terms

Agglomeration economic are benefits that come when firms and people locate near one another

Agro-forestry agriculture incorporating the cultivation or planting of trees

Backwash is the (off-shore) waves pulling back in the sea

Bars a bar is a ridge of sand that blocks off a bay or a river mouth. It usually creates a lagoon behind if it is across a non-river bay

Birth rate is the number of babies born in a year for every thousand people in that country

Catchment area the edge of highland surrounding a drainage basin. It marks the boundary between two drainage basin
<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Climate</td>
<td>the general weather conditions usually found in a particular place for a longer period of time</td>
</tr>
<tr>
<td>Commercial farming</td>
<td>farming for a profit, where food is produced by advanced technological means for sale in the market</td>
</tr>
<tr>
<td>Conservative plate</td>
<td>when plates move horizontally (at different speed) past each other they do not destroy any land, also known as transform boundaries</td>
</tr>
<tr>
<td>Convergent plate</td>
<td>when two plates move toward each other and collide, also known as destructive plate boundaries</td>
</tr>
<tr>
<td>Counter Urbanisation</td>
<td>is when large numbers of people move from urban areas into surrounding countryside or rural areas</td>
</tr>
<tr>
<td>Death rate</td>
<td>is the number of people who die in one year for every one thousand people in that country</td>
</tr>
<tr>
<td>Dependency ratio</td>
<td>is the proportion of working people to non-working people. A high dependency ratio means a small working population is supporting a large number of working to non-working people</td>
</tr>
<tr>
<td>Desalination</td>
<td>the process of removing salt from seawater</td>
</tr>
<tr>
<td>Divergent plate</td>
<td>when two oceanic plates move apart from each other, also known as constructive plate boundaries</td>
</tr>
<tr>
<td>Drainage basin</td>
<td>this is the area of land drained by a river</td>
</tr>
<tr>
<td>Earthquake</td>
<td>a sudden violent shaking of the ground, typically causing great destruction, as a result of movements within the earth's crust or volcanic action</td>
</tr>
<tr>
<td>Eco tourism</td>
<td>tourism directed towards exotic/preserving natural environments, intended to support conservation efforts and observe wildlife</td>
</tr>
<tr>
<td>Eco-tourism</td>
<td>is a form of sustainable tourism that supports the local environment instead of putting more pressure on it and exploiting its resources</td>
</tr>
<tr>
<td>Emigration</td>
<td>the movement of people away from place (also referred to as out migration)</td>
</tr>
</tbody>
</table>
Erosion is the breaking down of rocks and their transport by means of wind, water, or ice. (With movement)

Fertility rate this is the average number of live births a woman is capable of producing during her reproductive age of 15 to 44 years

GM Genetically Modified

Hydrological cycle is movement of water in continuous processes like evaporation, precipitation and runoff which starts from water bodies such as oceans

Hypothesis is a formal tentative statement of the expected relationship between two or more variables under study

HYV High Yielding Variety

Immigration this is the coming of people outside into a country

Infant mortality rate the percentage of children that die in the first few years of life

Life expectancy the average number of years a new born is expected live from birth

Meanders is a winding curve or bend in a river

Rural-urban migration this involves the movement of people from rural areas to urban areas

Mixed cropping also known as polyculture, inter-cropping, or co-cultivation, is a type of agriculture that involves planting two or more plants simultaneously in the same field, interdigitating the crops so that they grow together

Overgrazing occurs when plants are exposed to intensive grazing for extended periods of time, or without sufficient recovery periods. It can be caused by either livestock in poorly managed agricultural applications, game reserves, or nature reserves

Ox-bow Lake is a U-shaped lake that forms when a wide meander from the main stream stem of a river is cut off creating a free-standing body of water
Plate tectonic, a theory explaining the structure of the earth's crust and many associated phenomena as resulting from the interaction of rigid lithospheric plates which move slowly over the underlying mantle.

Population density, refer to the number of people per square km

Population distribution, is the spread of people across the world, i.e. where do people live

Primary industry, industries that extract raw materials from the earth

Pyramid, This is the graphical representation of the age and sex composition of a population.

Random sampling, this is selecting by chance

Reforestation, Is a process of replanting an area with trees

River channel, is the course carved by a river through which it flow

Systematic sampling, is the process of selecting a sample in orderly manner

Secondary industry, industries that manufacture/assemble or process raw materials into finished goods.

Slip of slope, is the gentle slope on the inside of a river bed

Spit, a spit is a long narrow ridge of sand attached at one end to the coast

Stratified sampling, classifying the population into groups possessing similar characteristics such as age, occupation, race or ethnic groups.

Swash, is the (onshore) waves rushing to the beach

Tertiary industry, industries that provide services to the public

Tombolo, a tambolo is form of spit connecting an island to the mainland

Tributary, a stream or smaller river which joins a larger stream or river

Urbanisation, is the increase in the proportion of people living in towns and cities

Volcano, a mountain or hill, typically conical, having a crater or vent through which lava, rock fragments, hot vapour, and gas are or have been erupted from the earth's crust

Weather, the condition in the atmosphere over a short period of time such as wind, rain, sunshine etc

Weathering, is the breaking down of rocks (due to atmospheric elements) in situ (without movement)
12. **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 aspects of the assessment may be balanced by better performances in others. Learners will be graded on a scale of A* - G.

Grade descriptions are provided for judgmental grades A, C, E and G.

**A Grade A learner is expected to:**
- demonstrate wide knowledge and comprehension of physical and human geography; and a clear understanding of their inter-relationships;
- make an interpretation and analysis of geographical information with a wide usage of quantitative techniques;
- analyse inter-relationships between people and their environment, recognise the dynamic nature of these relationships and how and why they may change through time and space;
- make balanced judgements and show an awareness of the different attitudes and priorities of individuals and groups and the problematical nature of the interaction of people with the environment;
- demonstrate clearly the ability to formulate a research question in relation to a geographical enquiry and apply appropriate methodology;
- communicate effectively the gathering, processing and analysis of information, and if appropriate, recognise that solutions or conclusions may not be readily be drawn from the enquiry.

**A Grade C learner is expected to:**
- demonstrate sound knowledge of physical and human geographical phenomena and a comprehension of important geographical ideas, concepts, generalisations and processes;
- interpret and analyse geographical information, using appropriate quantitative techniques, and account for geographical forces and processes, with discussion of similarities and differences;
- analyse inter-relationships between people and the environment and recognise the dynamic nature of these relationships;
- make balanced judgements on economic, political, social and environmental issues which have geographical dimension through recognition of conflicting view points and solutions;
- demonstrate satisfactorily the ability to formulate a research question in relation to a geographical enquiry and apply appropriate methodology;
- apply geographical techniques, interpret maps at different scales and a range of graphical, numerical and pictorial information such as flow-line diagrams, simple census extracts and photographs and come to some conclusions.
A Grade E learner is expected to:
- demonstrate basic knowledge of physical and human geography and a comprehension of geographical ideas, concepts, generalisation and relationships;
- make an interpretation and analysis of geographical information using basic statistics;
- describe interrelationships between people and their environment and analyse them in simple terms;
- recognise the existence of differing sets of values influencing economic, environmental, political and social issues which have geographical dimension;
- formulate a research question, record, classify geographical data, use source materials, including simple sketch maps and construct diagrams such as bar graphs but make a limited analysis and conclusions;
- communicate the information by brief statements.

A Grade G learner is expected to:
- demonstrate limited knowledge of physical and human geography and some comprehension of basic concepts;
- make a simple interpretation of geographical information to describe inter-relationships between people and their environment without much analysis;
- recognise the existence of differing sets of values influencing economic, environmental, political and social issues which have geographical dimension;
- formulate a research question, collect some data, use one or two research techniques, and use limited materials;
- communicate information in brief but without adequate conclusions.