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International Benchmarking of the South African National Senior Certificate (NSC) Subject Findings Appendix: Geography

Kenya ●

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Australia (NSW) ●



Two Decades of Education Guardianship
2002 - 2022

International Benchmarking of the
South African National Senior Certificate (NSC)
Subject Findings
Appendix: Geography

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Introduction

Overview of NSC Geography

The NSC Geography qualification has been developed by the Basic Education Department of the Republic of South Africa. It is an optional subject, intended for grade 10-12 students and is designed to be delivered over three years, each of four terms taking students through three phases: Foundation, Intermediate and Senior. The qualification forms part of a coherent progression through from Grade 4-12 in geography. The qualification document suggests that each topic in NSC Geography can be explored by applying a conceptual framework that embraces Geography's four "big ideas", namely Place, Spatial processes, Spatial distribution patterns, and Human and environment interaction. These concepts run through the content and topics, and it is recommended that at least one is included in each enquiry that students are introduced to.

The National Curriculum Statement Grades R-12 also identifies some wider curriculum aims for geographers, including critical and creative thinking. The curriculum design is clear and well structured, and time guidelines are provided to offer a weighting guide for teachers to help with curriculum planning and ensure that the content is appropriately taught ahead of periodic assessments. There are strong and relevant physical and human geography elements which are situated within a unifying concept of space, as all geographical phenomena have a spatial element. Skills development is built into each grade, and a useful table lists key questions that geographers can ask of all geographical phenomena and processes. There is a connection with other aspects of the Further

Education and Training (FET) phase of South African education. Questions can be applied within each of the "big ideas" identified earlier. Assessment is made up of both informal and formal assessment. These include mid-year and end-of-year examinations in each of Grades 10-12, along with a trial examinations and some school-based assessment tasks, so that students are able to gain marks towards the final grade throughout the curriculum rather than relying solely on terminal assessment. This is a forward-looking Geography curriculum, building on current ideas, and aimed at developing the conceptual thinking of those students who complete it.

Structure of Appendix

This subject comparison appendix addresses the relationship between NSC Geography and subjects which fulfil similar roles in five alternative programmes. This appendix is structured to first demonstrate points of comparability and contrasts between the subjects (under the heading Comparison) and then to synthesise this into Key Findings with a particular focus on skill development. This analysis examines all comparison subjects against NSC Geography simultaneously, to enable stakeholders to see the range of similarities and differences across the international contexts in a single place. The analysis is based on the review of the NSC Geography curriculum and assessment documentation for grades 10 to 12, and more specifically on the 2011 Curriculum and Assessment Policy Statement for Geography, the 2017 Examination Guidelines and the 2020 question papers and marking guidelines for Geography.

Comparison

Subjects in Context

Each of the comparison programmes also has a Geography subject, making cross-programme comparison relatively straightforward. The IB DP offers Geography at Higher Level or Standard Level. Cambridge International offers an International Geography AS Level over one year, an International AS Level in year one leading to an International A Level in year two, or an International A Level split over two years. In NSW, a stage 6 curriculum in Earth and Environmental Sciences is also offered (which has some substantial overlaps with Geography), however, Ecctis identified the Geography

syllabus as the most pertinent direct comparison point with NSC Geography. The Kenyan and Zimbabwean national programmes each have a single Geography syllabus.

Entry Requirements, Duration, Mode of Study, Progression Routes

The table below summarises any subject-specific entry requirements for each subject, expected prior learning, the duration of study within the programme, and any notable facts about progression routes which study of each subject enables either nationally or internationally.

Table 1: Comparison of subject specific entry requirements, expected prior learning, duration of study and recommended progression routes

NSC Geography ¹	Subject Specific Entry Requirements	Expected Prior Learning	Duration of Study	Recommended Progression Routes
	<p>For Grade 10:</p> <ul style="list-style-type: none"> • An official Grade 9 school report which indicates that a learner has met the requirements for promotion to Grade 10 or; • a General Education and Training Certificate (GETC) for Adult Basic Education and Training (ABET); or • a NQF Level 1 Certificate which requires two languages; or • a recognised equivalent qualification obtained at NQF Level 1 which requires two official languages. • an official document of approval from the relevant Head of Education confirming that a learner who has received home education prior to Grade 10 has reached the required level in Grade 9. 	<p>The qualification is tied to the Senior Phase of the curriculum. This follows the Foundational Phase and the Intermediate Phase. There would be a recommendation to have followed these phases prior to starting NSC Geography. A progression and continuity document is provided for teachers which shows how the topics at Grades 10-12 follow on from Grades 4-9 geography.</p>	<p>The qualification is taught over 3 years, with 4 terms per year. 4 hours of teaching time are allocated per week for the subject as a guideline for teachers to work to. Revision, consolidation, and assessment (formal and informal) are to be included in this time allocation.</p>	<p>It would be expected that students would move on to higher education, the world of work, or vocational qualification pathways.</p>

¹ National Curriculum Statement (2011), Curriculum and Assessment Policy Statement Grades 10-12 Geography, pp. 29-30.

	Subject Specific Entry Requirements	Expected Prior Learning	Duration of Study	Recommended Progression Routes
NSC Geography¹ continued	<p>For Grades 11 and 12:</p> <ul style="list-style-type: none"> • For Entrance into Grades 11 and 12, an appropriate statement of achievement at the appropriate levels is issued by an approved or recognised assessment body. 			
IB DP Geography HL/SL²	<p>Schools will engage with students' educational backgrounds on an individual basis</p>	<p>There is no specific expected prior learning.</p>	<p>The IB DP programme is taught over two years. The syllabus outline provides guidance on teaching hours for each part.</p> <p>SL Geographic themes - 60 hours SL and HL core - Geographic perspectives - Global Change - 70 hours Internal assessment - 20 hours Total SL teaching hours - 150 hours.</p> <p>HL Geographic themes - 90 hours SL and HL core - Geographic perspectives - Global Change - 70 hours - Global Interactions - 60 hours Internal assessment - 20 hours Total HL teaching hours - 240 hours.</p>	<p>It would be expected that students would move on to higher education, the world of work, or vocational qualification pathways.</p>

	Subject Specific Entry Requirements	Expected Prior Learning	Duration of Study	Recommended Progression Routes
Cambridge International AS/A Level Geography³	Schools will engage with students' educational backgrounds on an individual basis.	There is no specific expected prior learning.	The curriculum lasts for two years, although there is the option to take the Standalone AS level, which is half the full length and takes one year. 180 guided learning hours are recommended for the AS Level and 360 hours for the full A Level.	The subject guide states that "Cambridge International AS and A Level Geography helps learners develop the knowledge and skills that will prepare them for successful university study".
KCSE Geography⁴	N/A	Candidates must be holders of the KCPE Certificate or its equivalent. Prospective candidates with foreign certificates must seek equation of the foreign certificates before being admitted into the Kenyan schools.	Not detailed in documentation examined by Eccitis.	Students who scored an aggregate of C+ grade and above will be selected for the degree placement procedure, in both private and public universities, and their degree will be sponsored by the government.

³ Cambridge International Examinations (2016), *International AS and A Level: Syllabus: Cambridge International AS and A Level Geography 9696*.

⁴ Kenya Certificate of Secondary Education (2021), *Kenya Certificate of Secondary Education University Entry Points for All Schools 2021*. Available from: <https://kenyadmission.com/kcse-university-entry-points/>

ZIMSEC Forms 5-6 Geography ⁵	Subject Specific Entry Requirements	Expected Prior Learning	Duration of Study	Recommended Progression Routes
	<p>ZIMSEC Geography is intended to follow previous grades and to “consolidate competencies already acquired in the study of geography”</p>	<p>In a section marked ‘Assumptions’ the document also says: It is assumed that learners:</p> <ul style="list-style-type: none"> • have enterprise skills • have knowledge of map interpretation and graphicacy • have mastered basic physical and human geography concepts • have some grasp of GIS and remote sensing skills • have knowledge of natural resources and can positively interact with their environment. 	<p>The curriculum lasts for two years. Ten periods of 40 minutes per week should be allocated for adequate coverage of the syllabus according to the qualification document. Additional time should be allocated for students with special educational needs.</p>	<p>It would be expected that students would move on to higher education, the world of work, or vocational qualification pathways.</p>
<p>NSW HSC Geography⁶</p>	<p>No formal entry requirements are listed in the qualification documentation, although the Stage 6 qualification would normally follow the completion of a number of Stage 4-5 qualifications, which may include Geography.</p>	<p>The stage 6 qualification sits on a continuum of learning which is preceded by Stage 4 and 5 Geography. This includes mandatory Australian and Global geography units along with elective geography.</p>	<p>The syllabus consists of a preliminary course with a suggested length of 120 indicative hours. This includes: 54 hours for Biophysical interactions 54 hours for Global Challenges</p>	<p>Awarding body documentation claims that: Candidates completing this qualification would move onto other study or into the world of work.</p>

⁵ Zimbabwe Ministry of Primary and Secondary Education (2015), *Geography Syllabus Forms 5-6*, p. 1.

⁶ New South Wales Education Standards Authority (2021), *Geography Assessment materials*. Available from: <https://educationstandards.nsw.edu.au/wps/portal/nesa/11-12/stage-6-learning-areas/hsie/geography>

NSW HSC Geography ⁶ continued	Subject Specific Entry Requirements	Expected Prior Learning	Duration of Study	Recommended Progression Routes
		<p>This includes mandatory Australian and Global geography units along with elective geography. These include prior learning which 'must be considered before a program is planned'</p> <ul style="list-style-type: none"> • Stage 5 Mandatory Geography <p>A fieldwork Task undertaken in Stage 5 Mandatory Geography develops essential skills which are later refined and built upon in the Senior Geography Project (SGP).</p> <ul style="list-style-type: none"> • Stage 5 Elective Geography <p>The Elective course includes five focus areas, any two of which are selected for study. Environments at Risk, World Political Geography and Development Geography provide a sound basis for topics in Geography Stage 6. Not all students will have undertaken the Elective course of study in Geography. There is some overlap with the Stage 6 Science course.</p>	<p>12 hours for the Senior Geography project. This is followed by the HSC course which also has 120 indicative hours allocated for its completion: 40 hours for Ecosystems at risk 40 hours for Urban Places and 40 hours for People and Economic activity The order of topics is not prescriptive.</p>	

All six qualifications are preceded by other qualifications which provide the basis for further study, introducing some of the knowledge and skills which are contained within the benchmarked qualifications. In some cases, this is part of a spiral curriculum structure, where topics are designed to be revisited periodically. There are also some new topics in each, which will not have been explored in the earlier qualifications, and candidates are also introduced to new subject-specific vocabulary. This will eventually be assessed using more rigorous question types over a longer time-period. Each qualification requires significant time investment by students during the variable length of the course. Candidates will also be required to demonstrate a much greater understanding of key subject concepts in order to do well in the final assessment. Fieldwork offers the opportunity to develop further statistical techniques and fieldwork skills, and the nature of the report that candidates create following any fieldwork will be lengthy. It will also include elements of research based on the exploration of quantitative and qualitative data. There is less detail in the NSC documentation on the completion of research projects than in some

of the other documents provided, but certainly enough for students and teachers to be clear on the expectations and the marking rubric.

Different programmes provide different levels of emphasis on how they expect their students to progress, but none has substantially different goals from the general aim of supporting students into either higher/further education or the world of work.

Subject Aims

The following table lists the stated aims of each subject according to each programme's documentation. Where curriculum documentation does not explicitly articulate aims with, for example, a subheading titled "Aims", Ecctis have selected passages or extracts which most closely resemble a brief overview of the subject's purpose. This is intended to enable comparison between the different curricula as effectively as possible. Where something not labelled "aims" has been used to stand-in for curriculum aims, this is explained in the descriptive analysis underneath the table.

Table 2: Comparison of subject aims

	Subject Aims
NSC Geography⁷	<p>During Grades 10, 11 and 12 learners are guided towards developing the following knowledge, skills and attitudes:</p> <ul style="list-style-type: none"> • explaining and interpreting both physical and human geographical processes • describing and explaining the dynamic interrelationship between the physical and human worlds • developing knowledge about where places are, and the nature of a range of different places at different scales • practising essential transferable skills – literacy, numeracy, oracy and graphicacy • • promoting the use of new technologies, such as Information Communication Technology (ICT) and Geographical Information Systems (GIS) • developing a commitment towards sustainable development • creating awareness and sensitivity to inequality in the world • fostering empathy, tolerance and fairness; and making and justifying informed decisions and judgements about social and environmental issues.

⁷ National Curriculum Statement (2011), *Curriculum and Assessment Policy Statement Grades 10-12 Geography*, p. 8.

	Subject Aims
	<p>The Geography curriculum aims to develop the following subject-specific skills:</p> <ul style="list-style-type: none"> • using verbal, quantitative and symbolic data forms such as text, pictures, graphs tables, diagrams and maps • practising field observation and mapping, interviewing people, interpreting sources and working with statistics • applying communication, thinking, practical and social skills • practising the following specific skills: <ul style="list-style-type: none"> • identifying questions and issues • collecting and structuring information • processing, interpreting and evaluating data • making decisions and judgements • deciding on a point of view • suggesting solutions to problems; and working co-operatively and independently. <p>Geographical education also contributes to the development of personal and social competence.</p>
IB DP Geography⁸	<p>The IB DP Geography qualification sits within the broader group called Individuals and Societies. The aims of all subjects in the Individuals and Societies subject group are to:</p> <ol style="list-style-type: none"> 1. encourage the systematic and critical study of: human experience and behaviour; physical, economic and social environments; the history and development of social and cultural institutions 2. develop in the student the capacity to identify, to analyse critically and to evaluate theories, concepts and arguments about the nature and activities of the individual and society 3. enable the student to collect, describe and analyse data used in studies of society, to test hypotheses and interpret complex data and source material 4. promote the appreciation of the way in which learning is relevant to both the culture in which the student lives, and the culture of other societies 5. develop an awareness in the student that human attitudes and opinions are widely diverse and that a study of society requires an appreciation of such diversity 6. enable the student to recognize that the content and methodologies of the subjects in the individuals and societies group are contestable and that their study requires the toleration of uncertainty. <p>Geography has specific aims</p> <p>The aims of the Geography curriculum at SL and HL are to enable students to:</p> <ol style="list-style-type: none"> 1. develop an understanding of the dynamic interrelationships between people, places, spaces and the environment at different scales 2. develop a critical awareness and consider complexity thinking in the context of the nexus of geographic issues, including: <ul style="list-style-type: none"> • acquiring an in-depth understanding of how geographic issues, or wicked problems, have been shaped by powerful human and physical processes • synthesizing diverse geographic knowledge in order to form viewpoints about how these issues could be resolved 3. understand and evaluate the need for planning and sustainable development through the management of resources at varying scales.

⁸ International Baccalaureate Diploma Programme (2019), *Geography Guide*, p. 20.

	Subject Aims
<p>Cambridge International AS/A Level Geography⁹</p>	<p>The aims of this syllabus describe the educational purposes of Geography at International AS and A Level.</p> <p>These aims are not intended as assessment criteria but outline the educational context in which the syllabus content should be viewed. Some of these aims may be delivered by the use of suitable case studies, through application of geographical skills, or through practical fieldwork.</p> <p>The syllabus aims to enable candidates to:</p> <ul style="list-style-type: none"> • develop awareness of the relevance of geography to understanding and solving contemporary environmental problems • understand the main elements of physical geography and human geography and the interdependence between them • understand the processes operating at different scales within physical and human environments • develop a sense of space, place and location • explain the causes and effects of change over space and time on physical and human environments • understand the importance of scale in studying geography • develop an appreciation of the nature, value, limitations and importance of different approaches to analysis and explanation in geography • increase knowledge of, and ability to use and apply, appropriate skills and techniques including fieldwork • develop a concern for accuracy and objectivity in collecting, recording, processing, presenting, analysing and interpreting geographical data • develop the ability to interpret and evaluate different sources and types of information • develop a logical approach in order to present a structured, coherent and evidence-based.
<p>KCSE Geography¹⁰</p>	<p>These are expressed as 'General Objectives' rather than aims of which there are 14 listed in the documentation. Some of these refer to particular topics on the assessment as much as the wider purposes of geography as a subject to be studied:</p> <p>By the end of the course, the learner should be able to:</p> <ol style="list-style-type: none"> 1. appreciate the importance of studying Geography 2. recognize different types of environments and manage them for individual, national and international development 3. identify and explain weather phenomena and their influence on the physical environment and human activities 4. explain land-forming processes and appreciate the resultant features and their influence on human activities 5. acquire knowledge of available natural resources and demonstrate ability and willingness to utilize them sustainably 6. identify and compare economic activities in Kenya and the rest of the world 7. state, interpret, analyse and use Geographical principles and methods to solve problems of national development 8. apply field-work techniques in studying Geography 9. acquire knowledge and skills necessary to analyse population issues of Kenya and the world

⁹ Cambridge International Examinations (2016), *International AS and A Level: Syllabus: Cambridge International AS and A Level Geography 9696*, p. 11.

¹⁰ The Kenya National Examinations Council (2014), *Kenya Certificate of Secondary Education (KCSE): Examinations Regulations and Syllabuses*, p. 232.

	Subject Aims
	<p>10. appreciate the importance of interdependence among people and among nations</p> <p>11. identify, assess and have respect for different ways of life influencing development at local, national and international levels</p> <p>12. demonstrate the acquisition of positive attitudes, values and skills for self-reliance</p> <p>13. acquire appropriate knowledge, skills and attitudes as a basis for technological and industrial development</p> <p>14. promote patriotism and national unity.</p>
ZIMSEC Forms 5-6 Geography¹¹	<p>The wider aims of the syllabus are to:</p> <ul style="list-style-type: none"> • develop in learners skills of observation, recording, analysis and interpretation of geographical phenomena • develop in learners an in-depth understanding of Zimbabwean, African and World environmental issues • equip learners with practical Geographic Information Systems and Remote Sensing skills • promote an appreciation of the diversity of cultural issues • develop in learners skills of sustainably using their resources • nurture self-sustained citizens with enterprise skills
NSW HSC Geography¹²	<p>The specification document includes a very brief statement for aims: 'to enable students to study the spatial and ecological dimensions of biophysical and human phenomena in a changing world' There is a rationale section which expands on what is meant by these ecological and spatial dimensions. Geography is described as a 'key discipline'. The word curiosity is mentioned. This section also includes four primary reasons why students should study the subject of Geography</p> <ul style="list-style-type: none"> • Geography provides knowledge of the earth and helps people to plan and make decisions about the spatial dimensions of the world • Geography provides an intellectual challenge to reach a deeper understanding of the variable character of life on our planet • With a strong grasp of Geography, students are well prepared to explore issues as informed citizens in a changing world • Students of Geography develop skills and understandings transferable and applicable to the world of work. <p>The subject is also described as preparing students for post-school studies and future employment and for active participation as informed citizens. The link with citizenship is brought out in other qualifications, notably the KCSE.</p> <p>More general objectives are listed in the document and include:</p> <p>Knowledge and understanding about:</p> <ul style="list-style-type: none"> • the characteristics and spatial distribution of environments • the processes that form and transform the features and patterns of the environment • the global and local forces which impact on people, ecosystems, urban places and economic activity • the contribution of a geographical perspective <p>Skills to:</p> <ul style="list-style-type: none"> • investigate geographically • communicate geographically <p>And informed and responsible values and attitudes towards:</p> <ul style="list-style-type: none"> • ecological sustainability

¹¹ Zimbabwe Ministry of Primary and Secondary Education (2015), *Geography Syllabus Forms 5-6*, p. 1.

¹² New South Wales Education Standards Authority (2021), *Geography Assessment materials*, pp. 7-11. Accessed at: <https://educationstandards.nsw.edu.au/wps/portal/nesa/11-12/stage-6-learning-areas/hsie/geography>

Subject Aims	
	<ul style="list-style-type: none"> • a just society • ethical research practices • active and informed citizenship • responsible, autonomous life-long learning. <p>Alongside the objectives, NSW Stage 6 also makes reference to what are called 'Key competencies'. Geography is said to offer the potential for these to be developed, and they are considered essential for the acquisition of effective, advanced thinking skills necessary for further education, work and everyday life'.</p> <p>The key competencies of collecting, analysing and organising information and communicating ideas and information reflect core processes of geographical inquiry and are explicit in the objectives and outcomes of the syllabus.</p> <p>The other key competencies are developed through the methodologies of the syllabus and through classroom teaching.</p> <ul style="list-style-type: none"> • Students working as individuals and as members of groups to conduct geographical inquiries and develop the key competencies planning and organising activities and working with others and in teams. • When students construct, read and interpret maps, analyse statistical evidence and construct tables and graphs, they are developing the competency using mathematical ideas and techniques. • During investigations, students will need to use appropriate information technologies, developing the competency using technology. • Finally, the exploration of issues and the investigation of the nature of spatial and ecological problems contributes towards students' development of the key competency solving problems. <p>There are differences between the Preliminary Course, where outcomes are labelled as P1-P12 and the Higher Secondary Course (HSC) outcomes which are labelled as H1-H13</p>

The content of this table was drawn from:

- NSC curriculum aims were drawn from the "aims" subsection of the subject curriculum guide.
- IB DP curriculum aims were drawn from the "aims" subsection of the subject curriculum guide.
- Cambridge International AS/A Level curriculum aims were drawn from the "aims" subsection of the subject curriculum guide.
- KCSE aims were drawn from the "General Objectives" bullet point list in the curriculum guide, as there is no specific "aims" or "purpose" subsections.
- Zimbabwe Forms 5-6 aims were drawn from the "aims" subsection of the subject curriculum guide.

- NSW curriculum aims were drawn from the "Rationale" and "Aim" subsections of the subject curriculum guide.

There is broad agreement across the specifications that geography can develop a particular way of perceiving the world and promote thoughts on the best ways of approaching its challenges. There is also a range of processes with which students should become familiar, as well as a broad awareness of the location of significant places. These are all important aims but are phrased slightly differently in each of the qualifications.

The aims of the NSC generally align with those of the other qualifications and contain some socially-relevant outcomes, notably:

- creating awareness and sensitivity to inequality in the world
- fostering empathy, tolerance and fairness; and making and justifying informed decisions and judgements about social and environmental issues.

The broad aims are clearly framed and articulated, ensuring that the NSC is placed within a larger context which is comparable to other qualifications such as IB DP and Cambridge International AS/A Levels. The discussion of changing place is significant as it frames the qualification as being about the exploration of change generally and connects with broader geographic themes. This foregrounds the broader aims while being supported by the greater detail that emerges in the learning outcomes that follow. The NSW Level 6 qualification makes the claim that geography is a key discipline, and the NSC is similarly aspirational for South African students.

NSC has a slightly narrower overall focus than IB DP, Cambridge International A Level and NSW HSC, but does have a greater range of aims than the other African-based qualifications analysed here. The duration of the NSC is also different in that it is intended to take three years rather than two. This provides opportunity to go into greater depth and also to provide a greater range of both aims and objectives.

The ZIMSEC qualification has a different approach to the other qualifications. This syllabus uses a concentric approach. This recommends starting local, then moving to the whole of Zimbabwe, Southern African Development Community region, the rest of Africa, and then the world. It also uses a systems approach. There is also an integrated approach, which recommends that related topics should be taught together rather than in isolation. The NSC has a more tightly controlled structure.

Learning Outcomes

The following table lists the learning outcomes named in each programme's subject documentation. Where curriculum documentation does not explicitly articulate learning outcomes with, for example, a subheading titled "Learning Outcomes", Ecctis have selected lists or extracts which most closely resemble the expected knowledge, skills and competencies that students should have on completion of a programme of study. This is intended to enable comparison between the different curricula as effectively as possible. Where something not labelled "Learning Outcomes" has been used to stand-in for learning outcomes, this is explained in the descriptive analysis underneath the table.

Table 3: Comparison of learning outcomes

	Learning Outcomes
NSC Geography ¹³	<p>During Grades 10, 11 and 12 learners are guided towards developing the following knowledge, skills and attitudes:</p> <ul style="list-style-type: none"> • explaining and interpreting both physical and human geographical processes • describing and explaining the dynamic interrelationship between the physical and human worlds • developing knowledge about where places are, and the nature of a range of different places at different scales • practising essential transferable skills – literacy, numeracy, oracy and graphicacy • promoting the use of new technologies, such as information Communication Technology (iCT) and Geographical information Systems (GIS)

¹³ National Curriculum Statement (2011), *Curriculum and Assessment Policy Statement Grades 10-12 Geography*, pp. 8-9.

	Learning Outcomes
	<ul style="list-style-type: none"> • developing a commitment towards sustainable development • creating awareness and sensitivity to inequality in the world • fostering empathy, tolerance and fairness; and • making and justifying informed decisions and judgements about social and environmental issues. <p>The Geography curriculum aims to develop the following subject-specific skills:</p> <ul style="list-style-type: none"> • using verbal, quantitative and symbolic data forms such as text, pictures, graphs tables, diagrams and maps • practising field observation and mapping, interviewing people, interpreting sources and working with statistics • applying communication, thinking, practical and social skills • practising the following specific skills: <ul style="list-style-type: none"> • identifying questions and issues • collecting and structuring information • processing, interpreting and evaluating data • making decisions and judgements • deciding on a point of view • suggesting solutions to problems; and • working co-operatively and independently. <p>Geographical education also contributes to the development of personal and social competence.</p> <p>The Geography curriculum also aims to foster the following values and attitudes in learners:</p> <ul style="list-style-type: none"> • a concern for the sustainable and fair use of resources for the benefit of all • recognising the significance of informed decision making • the application of geographical knowledge and skills in learners' personal lives • respect for the rights of all people; and • a sense of fairness, sustainability and equality.
<p>IB DP Geography¹⁴</p>	<p>There are four assessment objectives (AOs) for SL and HL Diploma Programme Geography.</p> <p>Having followed SL or HL, students will be expected to do the following.</p> <ol style="list-style-type: none"> 1. Demonstrate knowledge and understanding of specified content <ul style="list-style-type: none"> • Demonstrate knowledge and understanding of the core theme–global change • Demonstrate knowledge and understanding of two optional themes at SL and three optional themes at HL • At HL only, demonstrate knowledge and understanding of the HL extension–global interactions • In internal assessment, demonstrate knowledge and understanding of a specific geographic research topic 2. Demonstrate application and analysis of knowledge and understanding <ul style="list-style-type: none"> • Apply and analyse geographic concepts and theories • Identify and interpret geographic patterns and processes in unfamiliar information, data and cartographic material

¹⁴ International Baccalaureate Diploma Programme (2019), *Geography Guide*, p.21.

	Subject Aims
	<ul style="list-style-type: none"> • Demonstrate the extent to which theories and concepts are recognized and understood in particular contexts <p>3. Demonstrate synthesis and evaluation</p> <ul style="list-style-type: none"> • Examine and evaluate geographic concepts, theories and perceptions • Use geographic concepts and examples to formulate and present an argument • Evaluate materials using methodology appropriate for geographic fieldwork • At HL only, demonstrate synthesis and evaluation of the HL extension–global interactions <p>4. Select, use and apply a variety of appropriate skills and techniques</p> <ul style="list-style-type: none"> • Select, use and apply the prescribed geographic skills in appropriate contexts • Produce well-structured written material, using appropriate terminology • Select, use and apply techniques and skills appropriate to a geographic research question
<p>Cambridge International AS/A Level Geography¹⁵</p>	<p>These are described as 'Assessment Objectives', similarly to IB DP Geography</p> <p>AO1: Knowledge Candidates should:</p> <ol style="list-style-type: none"> 1.1 give definitions and explanations of relevant geographical terms and concepts 1.2 show working knowledge of relevant principles, theories and models 1.3 recall accurately the location and character of places and environments 1.4 show knowledge of physical and human processes and factors. <p>AO2: Understanding and application Candidates should:</p> <ol style="list-style-type: none"> 2.1 understand the complex and interactive nature of physical and human environments 2.2 understand how processes bring changes in systems, distributions and environments 2.3 recognise the significance of the similarities and differences between places, environments and people 2.4 recognise the significance of spatial scale and time scale 2.5 apply geographical knowledge and understanding to unfamiliar contexts. <p>AO3: Skills Candidates should:</p> <ol style="list-style-type: none"> 3.1 interpret a variety of types of geographical data and sources and recognise their limitations 3.2 use geographical data to identify trends and patterns 3.3 use diagrams and sketch maps to illustrate geographical features 3.4 demonstrate skills of analysis and synthesis of geographical information 3.5 communicate geographical evidence, ideas and arguments. <p>AO4: Evaluation Candidates should:</p> <ol style="list-style-type: none"> 4.1 assess the effects of geographical processes and change on physical and human environments 4.2 evaluate the relative success or failure of initiatives 4.3 assess how the viewpoints of different groups of people, potential conflicts of interest and other factors interact in the management of physical and human environments 4.4 critically evaluate geographical principles, theories and models.

¹⁵ Cambridge International Examinations (2016), *International AS and A Level: Syllabus: Cambridge International AS and A Level Geography 9696*, p.12.

Subject Aims	
KCSE Geography¹⁶	<p>These are expressed as 'General Objectives' rather than aims of which there are 14 listed in the documentation.</p> <p>By the end of the course, the learner should be able to:</p> <ol style="list-style-type: none"> 1. appreciate the importance of studying Geography 2. recognize different types of environments and manage them for individual, national and international development 3. identify and explain weather phenomena and their influence on the physical environment and human activities 4. explain land-forming processes and appreciate the resultant features and their influence on human activities 5. acquire knowledge of available natural resources and demonstrate ability and willingness to utilize them sustainably 6. identify and compare economic activities in Kenya and the rest of the world 7. state, interpret, analyse and use Geographical principles and methods to solve problems of national development 8. apply field-work techniques in studying Geography 9. acquire knowledge and skills necessary to analyse population issues of Kenya and the world 10. appreciate the importance of interdependence among people and among nations 11. identify, assess and have respect for different ways of life influencing development at local, national and international levels 12. demonstrate the acquisition of positive attitudes, values and skills for self-reliance 13. acquire appropriate knowledge, skills and attitudes as a basis for technological and industrial development 14. promote patriotism and national unity. <p>The document also includes a long list of specific objectives for each of the elements of these general objectives. These are helpful for teachers in providing support for their curriculum making / lesson planning. They are included in the Appendix.</p>
ZIMSEC Forms 5-6 Geography¹⁷	<p>By the end of this learning phase, learners should be able to:</p> <ol style="list-style-type: none"> 4.1 demonstrate practical Geographic Information Systems and Remote Sensing Skills for describing the spatio-temporal distribution of phenomena 4.2 evaluate the causes, effects and solutions related to natural and human induced disasters 4.3 analyse the physical and human environmental phenomena of their locality, Zimbabwe, Africa and the world 4.4 solve key global environmental issues 4.5 demonstrate knowledge of geographical data collection, illustration, analysis and interpretation 4.6 examine the diversity of indigenous knowledge systems and their impact on the environment 4.7 design sustainable economic projects. <p>Learners will also be assessed on a number of objectives, which include community engagement (Unhu/Ubuntu).</p>

¹⁶ The Kenya National Examinations Council (2014), *Kenya Certificate of Secondary Education (KCSE): Examinations Regulations and Syllabuses*, p. 232.

¹⁷ Zimbabwe Ministry of Primary and Secondary Education (2015), *Geography Syllabus Forms 5-6*, p.2.

Subject Aims	
NSW HSC Geography¹⁸	<p>Through their study of Geography Stage 6, students will be expected to develop:</p> <p>knowledge and understanding about:</p> <ul style="list-style-type: none"> • the characteristics and spatial distribution of environments • the processes that form and transform the features and patterns of the environment • the global and local forces which impact on people, ecosystems, urban places and economic activity • the contribution of a geographical perspective <p>skills to:</p> <ul style="list-style-type: none"> • investigate geographically • communicate geographically <p>and informed and responsible values and attitudes towards:</p> <ul style="list-style-type: none"> • ecological sustainability • a just society • ethical research practices • active and informed citizenship • responsible, autonomous life-long learning. <p>The inclusion of values and attitudes is significant and connects once again with ideas of citizenship e.g.: 'a just society' needs some unpicking with students when exploring ideas such as inequality, food security etc.</p>

Where learning outcomes were drawn from:

- NSC curriculum learning outcomes were drawn from the “geography aims” subsection of the subject curriculum guide.
- IB DP curriculum learning outcomes were drawn from the “assessment objectives” subsection of the subject curriculum guide.
- Cambridge International AS/A Level curriculum learning outcomes were drawn from the “assessment objectives” subsection of the subject curriculum guide.
- KCSE learning outcomes were drawn from the “General Objectives” bullet point list in the curriculum guide, as there is no specific “learning outcomes” subsections.
- Zimbabwe Forms 5-6 learning outcomes were drawn from the “syllabus objectives” subsections of the subject curriculum guide.
- NSW HSC curriculum learning outcomes were drawn from “Objectives” subsections of the subject curriculum guide.

Learning outcomes are fairly consistent between the qualifications, although there is some variability in the language used to express them

in the documentation. Each subject requires students to be able to demonstrate some outcomes connected to the discipline, alongside more generic skills which will be included in other subject documentation as a broader outcome of secondary school education.

The outcomes of NSC are broadly consistent with the other qualifications. There are no obvious differences in inclusion which are not partially present in the other documents. They are clearly articulated and matched with the content, alongside suggested time allocations for their completion. They are named as “aims” rather than outcomes.

Content Areas

The following table summarises the different content areas included within each of the comparison subjects. For ease of comparison, content areas have been grouped by Ecctis. The groups in the table below are labels assigned by Ecctis according to analysis of subject documentation and they do not necessarily reflect the groupings or labels used in the subject documentation for each programme.

¹⁸ New South Wales Education Standards Authority (2021), *Geography Assessment materials*, p.7. Available from: <https://educationstandards.nsw.edu.au/wps/portal/nesa/11-12/stage-6-learning-areas/hsie/geography>

Table 4: Comparison of content areas

	Physical Geography	Human Geography	Fieldwork	Other
NSC Geography¹⁹	<p>Grade 10: The composition and structure of the atmosphere Plate tectonics, folding, faulting, volcanoes and earthquakes Water resources: Water in the world: oceans, flooding, water management</p> <p>Grade 11: Rocks and landforms, slopes, mass movements Global air circulation, Africa's weather and climate</p> <p>Grade 12: Climate and weather: cyclones, local climate Geomorphology: drainage systems and fluvial processes</p> <p>All years: Geographical skills and techniques:</p>	<p>Grade 10: Population: structure, growth, and movement Water resources: Water in the world: oceans, flooding, water management</p> <p>Grade 11: Development: differences, issues, and opportunities Resources and sustainability: soil, energy</p> <p>Grade 12: Rural and urban settlement Economic geography of South Africa</p> <p>All years: Geographical skills and techniques</p>	<p>Six hours of extra-mural fieldwork is recommended for Grade 10 and 11. Grade 12 learners should also do fieldwork if time allows. Much of the fieldwork will need to be conducted outside lesson time. There is also a skills element to the assessment of fieldwork.</p>	

¹⁹ National Curriculum Statement (2011), Curriculum and Assessment Policy Statement Grades 10-12 Geography.

	Physical Geography	Human Geography	Fieldwork	Other
IB DP Geography ²⁰	<p>Core optional themes (SL students study two, HL students three [no split is made by the IB between physical and human topics]):</p> <ul style="list-style-type: none"> Freshwater – drainage basins Oceans and coastal margins Extreme environments Geophysical hazards <p>Core non-optional:</p> <ul style="list-style-type: none"> Global climate – vulnerability and resilience 	<p>Core optional themes (SL students study two, HL students three [no split is made by the IB between physical and human topics]):</p> <ul style="list-style-type: none"> Leisure, tourism and sport Food and health Urban environments <p>Core non-optional:</p> <ul style="list-style-type: none"> Population distribution – changing population Global climate – vulnerability and resilience Global resource consumption and security <p>HL only:</p> <ul style="list-style-type: none"> Power, places and networks Human development and diversity Global risks and resilience 	<p>There is an expectation of fieldwork having been carried out. This feeds into the Internal Assessment</p> <p>Internal assessment (20 hours)</p> <p>This component is internally assessed by the teacher and externally moderated by the IB at the end of the course.</p> <p>Fieldwork (20 hours)</p> <p>Written report (25 marks)</p> <p>HL</p> <p>Internal assessment (20 hours)</p> <p>This component is internally assessed by the teacher and externally moderated by the IB at the end of the course.</p> <p>Fieldwork (20 hours)</p> <p>Written report (25 marks)</p>	
Cambridge International AS/A Level Geography ²¹	<p>Paper 1:</p> <ul style="list-style-type: none"> Hydrology and fluvial geomorphology Atmosphere and weather Rocks and weathering <p>Paper 3:</p> <ul style="list-style-type: none"> Tropical environments Coastal environments Hazardous environments Hot arid and semi-arid environments 	<p>Paper 2:</p> <ul style="list-style-type: none"> Population Migration Settlement Dynamics <p>Paper 4:</p> <ul style="list-style-type: none"> Production, location and change Environmental management Global interdependence Economic transition 	<p>Fieldwork is a strong element of Cambridge but is not assessed separately.</p>	

²⁰ International Baccalaureate Diploma Programme (2019), *Geography Guide*.

²¹ Cambridge International Examinations (2016), *International AS and A Level: Syllabus: Cambridge International AS and A Level Geography 9696*.

	Physical Geography	Human Geography	Fieldwork	Other
KCSE Geography ²²	<p>The earth and the solar system</p> <p>Minerals and rocks</p> <p>Internal land forming processes</p> <p>External land forming processes</p> <p>Weather and climate</p> <p>Soils</p> <p>Vegetation</p>	<p>External land forming processes</p> <p>Soils</p> <p>Vegetation</p> <p>Forestry</p> <p>Mining</p> <p>Agriculture</p> <p>Land reclamation and rehabilitation</p> <p>Fishing</p> <p>Wildlife and tourism</p> <p>Energy</p> <p>Industry</p> <p>Transport and communication</p> <p>Trade</p> <p>Population</p> <p>Settlement</p> <p>Management and conservation of the environment</p>	<p>A distinct fieldwork component is highlighted by the content list.</p> <p>Field work (as it is described in the qualification document is examined as part of Paper 1: Questions based on a topographic map and optional essays.</p> <p>Paper 2 includes a compulsory question based on either statistics or photographic interpretation.</p>	<p>Statistical methods, Maps and map work, and Photograph work are highlighted as a distinct parts of the curriculum, which could apply equally to human or physical geography</p>
ZIMSEC Forms 5-6 Geography ²³	<p>Geographic Information Systems and Remote Sensing</p> <p>Geo-statistical analysis and presentation</p> <p>Environmental management</p> <p>Atmospheric processes and phenomena</p> <p>Hydrology and fluvial processes</p> <p>Biogeography</p> <p>Geomorphology</p>	<p>Geographic Information Systems and Remote Sensing</p> <p>Geo-statistical analysis and presentation</p> <p>Environmental management</p> <p>Settlement dynamics</p> <p>Population and migration</p> <p>Agricultural production and food security</p> <p>Industrial dynamics</p> <p>Mining and mineral beneficiation</p> <p>Energy sources and development</p> <p>Transport systems and trade</p> <p>Regional inequalities and development</p>	<p>Paper 3 is called the Practical paper and explores this area. This also includes some practical community projects. It is worth a total of 40%.</p> <p>The paper consists of seven questions. The paper will be based on experiments, investigations, observations and calculations. Full instructions will be given where unfamiliar material or techniques are required Section A will be a compulsory question on statistics Section B will have three questions on mapping and GIS from which candidate will choose one.</p>	

²² The Kenya National Examinations Council (2014), Kenya Certificate of Secondary Education (KCSE): Examinations Regulations and Syllabuses.

²³ Zimbabwe Ministry of Primary and Secondary Education (2015), Geography Syllabus Forms 5-6.

	Physical Geography	Human Geography	Fieldwork	Other
<p>ZIMSEC Forms 5-6 Geography²³ continued</p>			<p>GIS work on computers may be included. Section C will have three questions on research techniques from which candidates will answer one. Each question will be marked out of 25 to give a total of 75.</p>	
<p>NSW HSC Geography²⁴</p> <p><i>Preliminary course:</i> Biophysical interactions: Nature and functioning of the four components of the biophysical environment</p> <p><i>HSC Course:</i> Ecosystems at risk: Ecosystems and their management including the functioning of ecosystems and their vulnerability and resilience Case studies of two different ecosystems at risk: their unique characteristics, the human impacts which influence them and traditional and contemporary management practices</p>	<p><i>Preliminary course:</i> Biophysical interactions: The interactions between, and the human impacts on, the functioning of the atmosphere, hydrosphere, lithosphere and biosphere A case study of one issue to illustrate how an understanding of biophysical processes contributes to sustainable management</p> <p>Global Challenges: Population geography: the changing nature, rate and distribution of the world's population Any TWO studies chosen from: Cultural Integration Political Geography Development Geography Natural Resource Use</p> <p><i>HSC Course:</i> Ecosystems at risk: Ecosystems and their management including the functioning of ecosystems and their vulnerability and resilience</p>	<p>Fieldwork is likely to emerge across the course, with one of the four key geography skills highlighted as:</p> <ul style="list-style-type: none"> • formulating a geographical question or issue for study • identifying, collecting and recording geographical data from a variety of primary sources • constructing a log of events and activities, which records the development of a fieldwork activity • synthesising data and evaluating the fieldwork activity". 	<p><i>Preliminary Course:</i> Senior Geography Project: Investigating and communicating geographically The nature of geographical inquiry and the ethical responsibilities of researchers Designing and conducting geographical research</p>	

²⁴ New South Wales Education Standards Authority (2021). *Geography Assessment materials*. Available from: <https://educationstandards.nsw.edu.au/wps/portal/nesa/11-12/stage-6-learning-areas/hsie/geography>

NSW HSC Geography ²⁴ continued	Physical Geography	Human Geography	Fieldwork	Other
		<p>The importance of, and the need for, management strategies</p> <p>Case studies of two different ecosystems at risk: their unique characteristics, the human impacts which influence them and traditional and contemporary management practices</p> <p>Urban Places:</p> <p>The nature, character and spatial distribution of world cities and mega cities</p> <p>The challenges of sustainable living in mega cities and responses to these challenges</p> <p>Urban dynamics of change in large cities</p> <p>Case studies of a large city from the developed world and a local area, to investigate urban dynamics</p> <p>People and Economic Activity:</p> <p>The nature, spatial patterns and future directions of economic activity</p> <p>The environmental and social impacts of economic activity</p> <p>Case studies of an economic activity on a global scale and an economic enterprise at a local scale</p>		

The way that the qualifications are structured is broadly similar, but there are some particular differences that stand out in each one to some degree. There are some qualifications, including the NSC, which don't follow the "traditional" separation of papers into physical and human, which was the model for most geography qualifications for many decades. They all require some degree of fieldwork and associated research. Sometimes this forms part of the final assessment; this is the case for the NSC qualification.

There are a number of common themes within the content areas which are not unexpected for geography qualifications. Each of the qualifications starts with some skills development, including the use of geographic information system (GIS) and the familiar inclusion of map skills, including map interpretation and some further abilities such as photo interpretation and statistical analysis. For some of the qualifications this is separated out into a discrete unit, but for most the GIS and other skills are embedded within the important subject content.

There are a few areas of interest in NSC Geography which are mirrored by the others. One area that one would expect to form part of Geography qualifications is some mention of climate change, or indeed the phrase "climate emergency". Teachers delivering UK qualifications are provided with support in this area from subject associations and learned societies including The Royal Geographical Society and Geographical Association. The NSW, IB DP, and Cambridge International specifications all have some element of climate resilience and environmental management, which are slightly more firmly stated within the documents.

In terms of sustainability, there is also a need to consider the impact of human activity and the resilience that countries and regions have towards some issues, such as food and water security. The term sustainability is something which is mentioned in most of the specifications, and important to explore at this level of school education.

The ZIMSEC qualification has an additional element which is the inclusion of some community-based work using the philosophy of Ubuntu. This is something which is not present in the same way in the other qualifications.

The content of the NSC Geography curriculum could be clearer on how it fully embraces the possibilities offered by three key bullets at the start of the documentation:

- Human rights, inclusivity, environmental and social justice: infusing the principles and practices of social and environmental justice and human rights as defined in the Constitution of the Republic of South Africa.
- The National Curriculum Statement Grades R-12 is sensitive to issues of diversity such as poverty, inequality, race, gender, language, age, disability and other factors.
- Valuing indigenous knowledge systems: acknowledging the rich history and heritage of this country as important contributors to nurturing the values contained in the Constitution.

These seem to offer a direction for the subject, but the content listing does not clearly reflect how subject content directly relates to these interesting themes.

Assessment Objectives

The table below provides a list of the subject-specific assessment objectives for each subject. Where curriculum documentation does not explicitly articulate assessment objectives with, for example, a subheading titled "Assessment Objectives", Ecctis have selected lists or extracts which most closely resemble the knowledge, skills, and competencies that students are assessed on. This is intended to enable comparison between the different curricula as effectively as possible. Where something not labelled "Assessment Objectives" has been used to stand-in for assessment objectives, this is explained in the descriptive analysis underneath the table.

Table 5: Comparison of assessment objectives

	Assessment Objectives
<p>NSC Geography²⁵</p>	<p>Weighting of cognitive levels: Low order – Knowledge/ Remembering (25%); Middle order – Understanding / Applying (50%); High order – Analysing, Evaluating, Creating (25%)</p> <p>Some examples of geographical competencies that may be assessed in the formal assessment tasks are listed below. They are provided as examples rather than being specifically itemised. These geographical competencies may form the focus of specific tasks, or they may be used together as part of a task. Learners should demonstrate competence in various combinations of the following during the grade:</p> <ul style="list-style-type: none"> • reading, analysing and interpreting maps, photographs and satellite images • drawing, analysing and interpreting graphs • drawing and labelling sketch maps • labelling diagrams • using models • working with a variety of data • analysing and synthesising information from different sources • conducting fieldwork, recording and interpreting findings • working with concepts, data, procedures related to GIS • conducting and writing up research • writing paragraphs and essays; and • evaluating arguments and expressing and supporting a point of view. <p>Geographical skills and techniques should be integrated into all formal assessment tasks. However, one formal assessment task in each grade should focus primarily on skills and techniques associated with topographic maps and orthophoto maps.</p> <p>Points to consider when designing assessment tasks:</p> <ul style="list-style-type: none"> • The purpose of the assessment tasks is to assess the learner’s ability to apply in an integrated way, knowledge, skills and a range of competencies. • It is helpful to design assessment tasks around specific issues in familiar or unfamiliar contexts to enhance the interest and enthusiasm of learners. • The criteria for assessing each task should be discussed and negotiated with the learners preferably before they start the task. <p>Formal assessments must cater for a range of cognitive levels and abilities of learners as mentioned elsewhere in this document. The inclusion of cognitive levels is useful clarification for teachers.</p>
<p>IB DP Geography²⁶</p>	<p>There are four assessment objectives (AOs) for the SL and HL Diploma Programme geography curriculum.</p> <p>Having followed the curriculum at SL or HL, students will be expected to do the following.</p> <p>1. Demonstrate knowledge and understanding of specified content</p> <ul style="list-style-type: none"> • Demonstrate knowledge and understanding of the core theme–global change • Demonstrate knowledge and understanding of two optional themes at SL and three optional themes at HL

²⁵ National Curriculum Statement (2011), *Curriculum and Assessment Policy Statement Grades 10-12 Geography*, p.51.

²⁶ International Baccalaureate Diploma Programme (2019), *Geography Guide*, p.21.

	Assessment Objectives
	<ul style="list-style-type: none"> • At HL only, demonstrate knowledge and understanding of the HL extension–global interactions • In internal assessment, demonstrate knowledge and understanding of a specific geographic research topic <p>2. Demonstrate application and analysis of knowledge and understanding</p> <ul style="list-style-type: none"> • Apply and analyse geographic concepts and theories • Identify and interpret geographic patterns and processes in unfamiliar information, data and cartographic material • Demonstrate the extent to which theories and concepts are recognized and understood in particular contexts <p>3. Demonstrate synthesis and evaluation</p> <ul style="list-style-type: none"> • Examine and evaluate geographic concepts, theories and perceptions • Use geographic concepts and examples to formulate and present an argument • Evaluate materials using methodology appropriate for geographic fieldwork • At HL only, demonstrate synthesis and evaluation of the HL extension–global interactions <p>4. Select, use and apply a variety of appropriate skills and techniques</p> <ul style="list-style-type: none"> • Select, use and apply the prescribed geographic skills in appropriate contexts • Produce well-structured written material, using appropriate terminology • Select, use and apply techniques and skills appropriate to a geographic research question.
<p>Cambridge International AS/A Level Geography²⁷</p>	<p>There are 4 Assessment Objectives (AOs) identified in the document:</p> <p>AO1: Knowledge Candidates should:</p> <p>1.1 give definitions and explanations of relevant geographical terms and concepts 1.2 show working knowledge of relevant principles, theories and models 1.3 recall accurately the location and character of places and environments 1.4 show knowledge of physical and human processes and factors.</p> <p>AO2: Understanding and application Candidates should:</p> <p>2.1 understand the complex and interactive nature of physical and human environments 2.2 understand how processes bring changes in systems, distributions and environments 2.3 recognise the significance of the similarities and differences between places, environments and people 2.4 recognise the significance of spatial scale and time scale 2.5 apply geographical knowledge and understanding to unfamiliar contexts.</p> <p>AO3: Skills Candidates should:</p> <p>3.1 interpret a variety of types of geographical data and sources and recognise their limitations 3.2 use geographical data to identify trends and patterns 3.3 use diagrams and sketch maps to illustrate geographical features 3.4 demonstrate skills of analysis and synthesis of geographical information 3.5 communicate geographical evidence, ideas and arguments.</p>

²⁷ Cambridge International Examinations (2016), *International AS and A Level: Syllabus: Cambridge International AS and A Level Geography 9696*, p.12.

	Assessment Objectives
	<p>AO4: Evaluation</p> <p>Candidates should:</p> <p>4.1 assess the effects of geographical processes and change on physical and human environments</p> <p>4.2 evaluate the relative success or failure of initiatives</p> <p>4.3 assess how the viewpoints of different groups of people, potential conflicts of interest and other factors interact in the management of physical and human environments</p> <p>4.4 critically evaluate geographical principles, theories and models.</p>
<p>KCSE Geography²⁸</p>	<p>These are expressed as "General Objectives", of which there are 14 listed in the documentation.</p> <p>By the end of the course, the learner should be able to:</p> <ol style="list-style-type: none"> 1. appreciate the importance of studying Geography 2. recognize different types of environments and manage them for individual, national and international development 3. identify and explain weather phenomena and their influence on the physical environment and human activities 4. explain land-forming processes and appreciate the resultant features and their influence on human activities 5. acquire knowledge of available natural resources and demonstrate ability and willingness to utilize them sustainably 6. identify and compare economic activities in Kenya and the rest of the world 7. state, interpret, analyse and use Geographical principles and methods to solve problems of national development 8. apply field-work techniques in studying Geography 9. acquire knowledge and skills necessary to analyse population issues of Kenya and the world 10. appreciate the importance of interdependence among people and among nations 11. identify, assess and have respect for different ways of life influencing development at local, national and international levels 12. demonstrate the acquisition of positive attitudes, values and skills for self-reliance 13. acquire appropriate knowledge, skills and attitudes as a basis for technological and industrial development 14. promote patriotism and national unity. <p>The document also includes a long list of specific objectives for each of the elements of these general objectives. These are helpful for teachers in providing support for their curriculum making / lesson planning.</p>
<p>ZIMSEC Forms 5-6 Geography²⁹</p>	<p>Learners will be assessed on their ability to demonstrate:</p> <ul style="list-style-type: none"> • Knowledge and understanding <ul style="list-style-type: none"> – Recall, recognize and use Geographical terms and definitions – of processes underlying physical and human landscapes and spatial patterns – how landscapes and patterns change – environmental inter-relationships

²⁸ The Kenya National Examinations Council (2014), *Kenya Certificate of Secondary Education (KCSE): Examinations Regulations and Syllabuses*, p. 232.

²⁹ Zimbabwe Ministry of Primary and Secondary Education (2015), *Geography Syllabus Forms 5-6*, p. 45.

	Assessment Objectives
	<ul style="list-style-type: none"> • Skills and their application <ul style="list-style-type: none"> – Comprehensive skills of observation, recording, interpretation and analysis – Use of Secondary sources of data – Draw and interpret tables, graphs, charts and diagrams – How to select, use and communicate information and conclusions effectively • Judgement and decision making <ul style="list-style-type: none"> – The role of values, perceptions and decision making in evolution of patterns in human Geography – How to use Geographical principles and concepts in interpreting situations at various scales – How to prepare, justify and evaluate solutions to environmental and socio-economic problems • Community engagement (Unhu/Ubuntu) <ul style="list-style-type: none"> – Ability to work in a group – Volunteerism and responsible citizenship – Innovativeness – Honesty and reliability – Integrity – Tolerance and mutual respect
<p>NSW HSC Geography³⁰</p>	<p>Knowledge and understanding of course content (40%) Geographic tools and skills (20%) Geographical inquiry and research, including fieldwork (20%) Communication of geographical information, ideas and issues in appropriate forms (20%)</p> <p>Through the study of Geography Stage 6, students will develop knowledge and understanding about:</p> <ul style="list-style-type: none"> • the characteristics and spatial distribution of environments • the processes that form and transform the features and patterns of the environment • the global and local forces which impact on people, ecosystems, urban places and economic activity • the contribution of a geographical perspective <p>skills to:</p> <ul style="list-style-type: none"> • investigate geographically • communicate geographically <p>and informed and responsible values and attitudes towards:</p> <ul style="list-style-type: none"> • ecological sustainability • ecological sustainability • a just society • ethical research practices • active and informed citizenship • responsible, autonomous life-long learning. <p>Alongside these broad objectives, which are drawn from the aims of the qualification, there are separate detailed objectives for the two levels of the qualification. There are 25 of these in total, which draw out some additional thinking to guide teachers in their development of the courses.</p>

³⁰ New South Wales Education Standards Authority (2021), *Geography Assessment materials*. Available from: <https://educationstandards.nsw.edu.au/wps/portal/nesa/11-12/stage-6-learning-areas/hsie/geography>

Some programmes do not specifically name “assessment objectives”. The content of this table was drawn from:

- NSC curriculum assessment objectives were drawn from the “cognitive levels” information in the subject curriculum guide.
- IB DP curriculum assessment objectives were drawn from the assessment objectives subsections of the subject curriculum guide.
- Cambridge International AS/A Level curriculum assessment objectives were drawn from the assessment objectives subsection of the subject curriculum guide.
- KCSE assessment objectives were drawn from the “General Objectives” bullet point list in the curriculum guide, as there is no specific “assessment objectives” subsection.
- Zimbabwe Forms 5-6 assessment objectives were drawn from the assessment objectives subsections of the subject curriculum guide.
- NSW curricula assessment objectives were drawn from “Objectives” and “Outcomes” subsections of the subject curriculum guide.

There will always be some common features of qualifications at this level in that there is an expectation of a thorough grasp of subject knowledge, which is backed up by

the development of skills, often building on prior qualifications. All assessments involve a combination of knowledge which needs to be learned, and other knowledge which is acquired in order to be applied. A broad range of statistical techniques, photo interpretation and other skills are also part of the assessment, and all examinations require mapping of some kind. This usually begins with the inclusion of topographic maps, but usually includes other mapping, whether that be isochrones, weather charts or geology related mapping. The NSC assessment objectives and the associated materials provided are consistent with the other qualifications.

NSC’s assessment objectives are broadly in line with the majority of the other qualifications, although they are not explicitly labelled as “assessment objectives”. The assessment tasks listed in the Curriculum and Assessment Policy Statement for (CAPS) Geography document appear to be well designed to provide a robust test of the objectives.

Assessment Methods

The table below demonstrates some key features of the methods used to assess each subject.

Table 6: Comparison of assessment methods

	Assessment Method (External) and Weighting	Assessment Method (Internal) and Weighting	Use of Question Types
<p>NSC Geography³¹</p>	<p>Formal examinations make up 75% of final grade. The format of examinations involves a number of elements which are revisited several times through the curriculum. Assessment at Grade 12 involves 2 papers: PAPER 1 (THEORY) This is a 3-hour question paper and will be written first on the day of the Geography examination. The total mark for this paper is 225 marks. The question paper consists of two sections, namely SECTION A and SECTION B. SECTION A: Climate and Weather and Geomorphology SECTION B: Settlement Geography and Economic Geography of South Africa Each of the two sections consists of two questions of 75 marks each. Any THREE of the four questions must be answered. PAPER 2 (MAPWORK) This is a 1½-hour paper and will be written second on the day of the Geography examination. The total mark for this paper is 75 marks The question paper consists of four questions that are COMPULSORY and is comprised as follows:</p>	<p>There is some internal assessment during the curriculum. This takes the form of continuous assessments which are carried out at intervals through the curriculum. These are itemised in the documentation. An internal assessment mark (constituting 25% of final grade) for Grade 12 should comprise of 7 different assessment methods across three terms. 1. Data-handling task 20 marks 2. 2 Tests 20 marks 3. Mapwork task 20 marks 4. Mid-year examination (Paper 1 and Paper 2) 10 marks 5. Research/Essay writing task 20 marks 6. Trial Examination (Paper 1 and Paper 2) 10 marks The seven tasks completed during the school year are internally assessed and make up 25% of the total mark for Geography.</p>	<p>Paper 1 Marks: 225 Time: 3 hours Learners must answer any three questions. Section A: Question 1 • Short objective type questions for 15 marks to cover content on Climate and weather and Geomorphology. • Climate and weather for 30 marks • Geomorphology for 30 marks Question 2 • Short objective type questions for 15 marks to cover content on Climate and weather and Geomorphology. • Climate and weather for 30 marks • Geomorphology for 30 marks Section B: Question 3 Short objective type questions for 15 marks to cover content on Settlement and Economic Geography. • Settlement Geography for 30 marks • Economic Geography for 30 marks</p>

³¹ Department of Basic Education Republic of South Africa (2017), Geography: Examination Guidelines Grade 12; National Curriculum Statement (2011), Curriculum and Assessment Policy Statement Grades 10-12 Geography, p 50.

NSC Geography ²¹ continued	Assessment Method (External) and Weighting	Assessment Method (Internal) and Weighting	Use of Question Types
	<p>QUESTION 1: Multiple-choice questions (15 marks)</p> <p>QUESTION 2: Geographical techniques and calculations (20 marks)</p> <p>QUESTION 3: Application of theory/map and photo interpretation (25 marks)</p> <p>QUESTION 4: Geographical Information Systems (15 marks).</p> <p>There is also information provided on the Cognitive level rating of both question papers:</p> <p>Low Order: 25%</p> <p>Middle Order: 50%</p> <p>High Order: 25%</p>		<p>Question 4</p> <ul style="list-style-type: none"> Short objective type questions for 15 marks to cover content on Settlement and Economic Geography. Settlement Geography for 30 marks Economic Geography for 30 marks <p>Paper 2 Marks: 75 Time: 1½ hours Based on mapwork.</p> <p>Question 1 Multiple choice questions (15 marks)</p> <p>Question 2 Map calculations (20 marks)</p> <p>Question 3 Analysis and interpretation of a topographic map and a photograph, and application of theory (25 marks)</p> <p>Question 4 GIS (15 marks)</p> <p>The documentation also provides guidance on cognitive levels of the questions on the papers.</p>

	Assessment Method (External) and Weighting	Assessment Method (Internal) and Weighting	Use of Question Types
<p>IB DP Geography³²</p>	<p>As with the other qualifications, there are several external assessments.</p> <p>SL</p> <p>External assessment (2 hours 45 minutes)</p> <p>Paper 1 (1 hour 30 minutes)</p> <p>Geographic themes—two options (40 marks)</p> <p>Paper 2 (1 hour 15 minutes)</p> <p>Geographic perspectives—global change (50 marks)</p> <p>HL</p> <p>External assessment (4 hours 30 minutes)</p> <p>Paper 1 (2 hours 15 minutes)</p> <p>Geographic themes—three options (60 marks)</p>	<p>SL External Assessment has a dual structure. Papers include elements of both physical and human geography.</p> <p>Paper 2 (1 hour 15 minutes)</p> <p>Geographic perspectives—global change (50 marks)</p> <p>HL</p> <p>Paper 2 (1 hour 15 minutes)</p> <p>Geographic perspectives—global change (50 marks)</p> <p>Paper 3 (1 hour)</p> <p>Geographic perspectives—global interactions (28 marks)</p>	<p>A range of questions are used in the assessments. These include a list of command words which students are provided with.</p> <p>Questions tend to move from 1 or 2 mark questions to others which are marked on a level which ranges up to 10 mark questions. There is also a degree of optionality as well.</p>
<p>Cambridge International AS/A Level Geography³³</p>	<p>For Cambridge International AS and A Level Geography, candidates take Papers 1 and 2 only (for the Cambridge International AS Level qualification) or follow a staged assessment route by taking Papers 1 and 2 (for the Cambridge International AS Level qualification) in one series, then Paper 3 and 4 (for the Cambridge International A Level qualification) in a later series. Alternatively, students can take Papers 1, 2, 3 and 4 in the same examination series, leading to the full Cambridge International A Level. All components will be externally assessed.</p>	<p>All assessment for this qualification is externally marked.</p>	<p>A range of questions are used in the assessments, and these have been carefully designed to provide a range of formats for students to engage with. These are also described in the documentation as they match the Assessment Objectives.</p> <p>AO1 Knowledge and understanding of specified content</p> <p>Classify</p> <p>Define</p> <p>Describe</p> <p>Determine</p> <p>Estimate</p> <p>Identify</p> <p>Outline</p>

³² International Baccalaureate Diploma Programme (2019), *Geography Guide*, p. 83.

³³ Cambridge International Examinations (2016), *International AS and A Level Syllabus: Cambridge International AS and A Level Geography 9696*, p.13.

Cambridge International AS/A Level Geography ³³ continued	Assessment Method (External) and Weighing	Assessment Method (Internal) and Weighing	Use of Question Types
	<p>Details of the 4 papers:</p> <p>Paper 1 Core Physical Geography 1 hour 30 minutes Section A: Three data response questions (30 marks) Section B: One structured question from a choice of three (30 marks) 60 marks</p> <p>Paper 2 Core Human Geography 1 hour 30 minutes Section A: Three data response questions (30 marks) Section B: One structured question from a choice of three (30 marks) 60 marks</p> <p>Paper 3 Advanced Physical Geography Options 1 hour 30 minutes Candidates answer questions on two of the optional topics. Each topic consists of one structured question (10 marks) and a choice of essay questions (20 marks). 60 marks</p> <p>Paper 4 Advanced Human Geography Options 1 hour 30 minutes Candidates answer questions on two of the optional topics. Each topic consists of one structured question (10 marks) and a choice of essay questions (20 marks). 60 marks</p>		<p>State These terms require students to demonstrate knowledge and understanding.</p> <p>AO2 Application and analysis of knowledge and understanding Analyse Distinguish Explain Suggest These terms require students to use and analyse knowledge and understanding.</p> <p>AO3 Synthesis and evaluation Compare Compare and contrast Contrast Discuss Evaluate Examine Justify To what extent? These terms require students to make a judgment based on evidence and when relevant construct an argument.</p> <p>AO4 Selection, use and application of a variety of appropriate skills and techniques Annotate Construct Draw Label These terms require students to demonstrate the selection and application of skills.</p>

	Assessment Method (External) and Weighting	Assessment Method (Internal) and Weighting	Use of Question Types
<p>KCSE Geography³⁴</p>	<p>This qualification is structured using papers. Paper 1 - 2 hours and 45 minutes Physical Geography (also including Map Interpretation and Fieldwork) 100 marks (50% of marks) Section A Short answer questions. Compulsory questions apart from a choice from 4 essay titles based on Physical geography and Field work of which candidates answer 2. Paper 2 - 2 hours and 45 minutes. Human and Economic Geography 100 marks (50% of marks) Compulsory questions apart from a choice from 4 essay titles based on Human and Economic Geography of which candidates answer 2. 100 marks (50% of marks) Field work (as it is described in the qualification document is examined as part of Paper 1: Questions based on a topographic map and optional essays. Paper 2 includes a compulsory question based on either statistics or photographic interpretation.</p>	<p>There is no internal assessment for this qualification identified in the documentation.</p>	<p>A wide range of question types are used for the assessment. The exam papers start with short point marked questions worth 2 or 3 marks which are knowledge recall. Generally, marks are linked to the format of the question e.g. 'Explain four positive effects of urbanisation of a country' is worth 8 marks. Two marks per effect. There are also diagrams to label. Candidates write on separate lined paper and not in the examination paper. This leads on to essay titles which are marked out of 25, although they are actually split into smaller sections rather than being one long question marked out of 25.</p>

³⁴ The Kenya National Examinations Council (2014). Kenya Certificate of Secondary Education (KCSE): Examinations Regulations and Syllabuses.

	Assessment Method (External) and Weighting	Assessment Method (Internal) and Weighting	Use of Question Types
<p>ZIMSEC Forms 5-6 Geography³⁵</p>	<p>The examination consists of three papers, all of which are compulsory. These will account for 60% of the total assessment.</p> <p>Paper 1: Structured, physical component. 3 hours.</p> <p>10 structured questions, each marked out of 25. Two questions will be set per topic. Candidates answer any four for a total mark of 100.</p> <p>Internal (continuous) assessment makes up 40% of the total assessment - a higher figure than the other qualifications.</p> <p>Paper 2: Structured, human component. 3 hours.</p> <p>10 structured free-response and data-response questions, each marked out of 25. Two questions will be set per topic. Candidates answer any four for a total mark of 100.</p> <p>Paper 3: Practical paper. 3 hours. This consists of 7 questions. The paper will be based on experiments, investigations, observations and calculations. Section A is a compulsory question on statistics. Section B has 3 questions on mapping and GIS from which candidates will choose one. Section C will have 3 questions on research techniques from which candidates will answer one. Each question will be marked out of 25 to give a total mark of 75.</p>	<p>There is a range of continuous assessment, adding up to 40% of the total mark. Candidates will design and carry out individual research projects on any part of the syllabus. There will be one per year, making up 10% of the assessment (5% per year)</p> <p>Candidates will also participate in communal projects that solve prevailing community problems. These should demonstrate soft skills as inculcated in Hunhu/Ubuntu. This is important. There will be one per year making up 10% of the assessment (5% per year)</p> <p>Practical experiments will need to be carried out in the field or laboratory. There will be one per year, making up 10% of the assessment (5% per year)</p> <p>Theory tests will also be carried out in school. There will be one per term making up 10% of the assessment in total (5% per year)</p>	<p>A wide range of question types are used. These include structured questions, including free-response and data-response questions.</p> <p>Paper 1 includes ten structured questions marked out of 25 - candidates need to answer any four questions.</p> <p>For paper 2, this moves to structured free-response and data-response questions.</p>

³⁵ Zimbabwe Ministry of Primary and Secondary Education (2015), Geography Syllabus Forms 5-6.

	Assessment Method (External) and Weighting	Assessment Method (Internal) and Weighting	Use of Question Types
<p>NSW HSC Geography³⁶</p>	<p>The Year 12 external examination will consist of a written paper worth 100 marks. The time allowed is 3 hours plus 5 minutes reading time.</p>	<p>The Year 11 formal school-based assessment program is to reflect the following requirements:</p> <ul style="list-style-type: none"> • three assessment tasks • the minimum weighting for an individual task is 20% • the maximum weighting for an individual task is 40% • only one task may be a formal written examination • one task must be the Senior Geography Project with a weighting of 30–40%. <p>The Year 12 formal school-based assessment program is to reflect the following requirements:</p> <ul style="list-style-type: none"> • a maximum of four assessment tasks • the minimum weighting for an individual task is 10% • the maximum weighting for an individual task is 40% • only one task may be a formal written examination with a maximum weighting of 30%. 	<p>External HSC Examination paper: The paper will consist of three sections. Section I (20 marks): There will be objective response questions to the value of 20 marks. Questions may require candidates to refer to the stimulus booklet and to apply geographical skills and tools. Section II (40 marks): There will be approximately five short-answer questions. Questions may contain parts. There will be approximately 12 items in total. Questions may require candidates to refer to the stimulus booklet and to apply geographical skills and tools. Section III (40 marks): There will be three extended response questions, one question for each of the syllabus topics. Candidates will be required to answer two questions. The expected length of each response will be around six pages of an examination writing booklet (approximately 800 words). Questions may require candidates to refer to the stimulus booklet.</p>

³⁶ New South Wales Education Standards Authority (2021), *Geography Assessment materials*. Available from: <https://educationstandards.nsw.edu.au/wps/portal/nesa/11-12/stage-6-learning-areas/hsie/geography>.

Assessment of all the qualifications involves a number of externally assessed papers, which run to considerable length to provide a robust test of knowledge and competences. Most programmes also include some element of internal assessment, which involves teachers in assessing and providing marks based on rubric provided by awarding bodies.

The NSC qualification is the only one to actually build in and identify one term in Grade 12 of the curriculum to be used completely for revision. In all other qualifications, revision would need to be built in by perhaps aiming to finish the curriculum some time ahead of the final assessments, or even to offer revision outside of the normal school day or Geography curriculum time. This is an interesting element of the qualification.

There is also the question of optionality in some qualifications, which provides some flexibility for students to prepare and revise less material, and also for teachers to make decisions about which sections of the curriculum to teach, based on local circumstances and context. This would include, for example, physical content such as a choice between rivers, coasts and glacial landscapes.

All of the questions on the NSC assessment are compulsory and provide comprehensive coverage of the different aspects of the qualification. This is significant as it illustrates to students that all areas of the qualification are equally important and form part of a coherent subject framework, rather than being left to the discretion of teachers. It also provides clarity over the structure that the qualification has: that the content in each year builds on the former and every subject topic provides foundational knowledge for later material.

One qualification which differs is the ZIMSEC which, alongside lengthy examination papers adding up to nine hours in total, includes some additional assessment features not included in the comparator qualifications. Candidates are expected to participate in communal projects that aim to solve prevailing community problems. These should demonstrate soft skills as inculcated in Hunhu / Ubuntu. This practical application is significant and has the potential to develop vocational skills which could be carried forward.

Key Findings

Learning Outcomes and Assessment Objectives

Scope

All of the Geography specifications analysed here are broad and ambitious in scope. They each explore and focus on different branches of geography which are recognised by many national qualifications beyond those explored here: physical geography, human geography, and fieldwork skills, including mapwork skills and statistical analysis.

The focus of the NSC is more closely linked to South African contexts than the other, non-SA qualifications. The topic on the Economic Geography of the country takes an approach which goes for depth rather than breadth, which is entirely appropriate, and this and other areas also link to possible careers that those students who complete the qualification may move into.

The NSC qualification shares the broader scope of the other subjects, although it does not include the same extent of global focus as qualifications such as the IB DP and the Cambridge International AS/A Level. These cover more ground but do not have the specificity of the NSC regarding industrial areas and specific links to South Africa. The format of NSC Geography assessment requires students to be appropriately prepared for a range of different themes and content; from this perspective, the scope is proportionate.

Skills Coverage

There is much agreement between the qualification documentation around the subject-specific and more generic skills which students should develop during their studies in geography at this age. These often relate to the use of primary and secondary data and the skills which are developed during fieldwork. Some

of these are used within the curriculum, others are developed for use in the final assessment. Ideally, students see the intrinsic value in the acquisition of these skills rather than the purely extrinsic purpose of passing as assessment. They also form part of the internal assessment of qualifications as well.

The NSC qualification has a strong emphasis on skills development. The idea of competences or soft skills is an element of many of the qualifications and the NSC also explores these in the documentation provided for teachers. One particular growth area in geographical skills is that of the use of Geographic Information Systems (GIS). GIS is covered in the NSC qualification and also the development of some more traditional geographic skills. The NSC aims to make geography students proficient in the use of aerial photography and other mapping. Those students who follow this qualification will therefore be prepared for entry into a suitable career in key industrial sectors including mining, agriculture and forestry, and bring some key skills and knowledge with them.

Skills are also explored during research projects, which each of the qualifications include. NSC Geography develops skills which are consistent with the other qualifications in this area, including some generic ones alongside the more explicitly geographical ones. There is a greater emphasis on photographic interpretation, images are a key tool of the geographer when it comes to comparisons between locations, and also exploring change: all important larger aims for geographers to be able to demonstrate.

Content and Structure

Scope

All qualifications have a broad and ambitious range of topics to cover. All of the qualifications explore a wide range of geographical themes or concepts. They also cover a number of different

locations at a range of scales from the local to the global. There is an African focus to the case studies on the qualifications from Kenya and South Africa, and the Zimbabwean qualification also explores locations within country. The IB has perhaps the broadest scope of all, mirrored by the Cambridge International syllabus which is ambitious in its scope.

The NSC has a few elements which one could describe as traditional, rather than being a little more future focussed. Some of the urban models such as Harris and Ullman have been a little overtaken by modern urbanisation trends and globalisation has also changed the dynamics of trade with regard to terms such as “break of bulk” points.

The rivers element of the NSC geomorphology topic has quite a defined focus on drainage systems and river networks in Grade 12, whereas other specifications tend to prioritise processes and landforms. However, this links with the focus on topography and geology in Grade 11, which makes sense when looked at holistically. This approach is different to the other specifications but works well and has good coherence.

The exemplar assessment materials from November 2020 are a little focussed on the drainage network and underlying geology, including the stream order of the network channels. There is less of a focus on process and river landforms and the flood risk that rivers pose than one finds in qualifications such as the IB DP and Cambridge International AS/A Levels.

The food security focus is timely and relevant, and one which is mirrored in the IB DP and Cambridge International qualifications as well. Although one would not want the Geography specification to become unduly “negative” in its focus, there are some undoubted issues which Geography students should be introduced to, in the area of environmental pollution and management and the impacts of the climate emergency.

One theme which emerges when looking at the qualifications is that the NSC Geography students will emerge with a good understanding of landscape and topography; these topics are key to the discipline of geography. Students will be introduced to a range of landforms which the other specifications do not mention, including a specific look at the Karoo landscapes which are found in South Africa. The approach to development appropriate, where a model such as Rostow’s is approached critically and not just accepted as being the truth.

The ZIMSEC qualification also sets out a number of additional areas for focus which are not found in most of the other qualifications and have an African focus. Some of these are quite vocational, and one imagines that for some students, this qualification would provide a route into particular careers such as environmental management, agricultural production, mineral beneficiation, and energy sources.

It was initially surprising that GIS is given only one hour in term one of NSC as this is a growth area, but it is returned to later in the curriculum and given more time. Much of the focus here is on the technical aspects of GIS, such as vector and raster data, but there is a less practical application. The sequencing is also significant as the use of a “paper GIS” comes towards the end of the guidelines documentation but perhaps belongs more appropriately near the start.

The NSC qualification focuses on ensuring that the content is taught appropriately within the spatial context of the subject discipline, which is important, and the language used is appropriate and accurate, providing clear direction for teachers who are going to prepare students for the assessment.

Sequencing

The NSC uses a different structure from many other qualifications (in that it is explicitly set out in the qualification document which topics are to be taught and in which order, term by term).

This provides a useful structure for teachers to plan towards, assisted by the additional documentation in the Examination Guidelines document that was provided.

The sequencing of the qualifications is broadly comparable on the basis of the information that is provided in the documentation for the other qualifications. Some centres may also use team teaching and a block structure to their timetable as a way to position the teaching within the institution. The clear structure also removes the likelihood that particular areas of the curriculum (e.g. physical topics or skills) will be taught in one block rather than spread throughout. The other qualifications leave these choices up to individual departments within educational institutions.

Although some of the A level-style qualifications such as Cambridge International award offer scope for a one-year option, covering part of the content, most programmes require the full range of topics to be taught ahead of terminal examinations. The degree of optionality also varies as mentioned elsewhere in this document. All of NSC Geography's content is compulsory.

The curriculum structure of the ZIMSEC qualification is apparently informed by cognitive science and research into curriculum design which means that students revisit topics with a slightly different angle from year to year. Topics such as Weather and Climate are revisited three times, with additional depth and a change of focus.

The NSC also adopts a similar approach in Grades 10-12, building from an exploration of the structure of the atmosphere, to the earth's energy balance and global circulation, ending in a look at climate and weather. This is a very effective way of approaching the topic, rather than tackling all of the content in one topic which may then be forgotten if not taught in the second or third year of the curriculum.

Similarly, Geomorphology is a topic where the NSC starts with the structure of the earth and introduces plate tectonics before moving towards a more local structural look at topography, slopes, and mass movement. If we take this topic and look at coverage in some of the other qualifications, there is some variability in the actual approach. The NSC goes into more detail here than most of the other qualifications, although the KCSE also includes some of this quite specific geological focus.

The NSC therefore has a slightly more content-focussed approach than the conceptual ideas which are included in the NSW Stage 6 qualification for example, which has topics such as Global Challenges and Urban Places. These integrate a whole range of skills and knowledge into a larger topic lasting 40 hours. The NSC is made up of smaller sections, each of which has a guideline on how long it should be taught for.

Skills Coverage

The NSC Geography curriculum has skills coverage which is broadly in line with the other qualifications against which it is being benchmarked. Students following this curriculum will be clear on the nature of the skills embedded in the subject and the practical purpose for acquiring them.

There are some key skills required for geography around the use and construction of different types of maps at varying scales. These are well covered and developed across the curriculum rather than being taught in one discrete section. NSC Geography includes a number of subject-specific skills as well as some of the more generic skills which are required around numeracy and literacy. These are also signposted and given appropriately directed time slots within the documentation.

The use of multiple-choice questions offers scope for students to gain more marks without writing extended pieces. This is one slight area

of difference that the NSC displays compared to some comparison programmes: some of the skills are assessed using different question types.

There is strong skills coverage in the NSC qualification which is mirrored in the assessment structure. The IB has a greater focus on the interpretation of data, including statistical measures. The ZIMSEC qualification has the additional soft skills development of the Ubuntu philosophy. This requires students to undertake a community-based project, which will allow opportunities for the development of practical and applied skills.

Assessment

Structure

Assessments are broadly similar for each of the qualifications: all involve significant time in external examinations providing a rigorous test of the knowledge and skills acquired during the curriculum. In comparison to the other qualifications, NSC Geography's assessment structure is similar in the nature of the examination papers and the combination of internal and external assessments. This offers scope for candidates to achieve in areas which allow them to show their particular strengths.

Clear support is provided by the Curriculum and Assessment Policy Statement for Geography documentation, which is a strength of the NSC qualification. This outlines the nature and purpose of Geography very clearly and also the philosophy underlying the teaching and assessment of the subject. This is a valuable part of the support needed for teachers.

NSC Geography is similar to the other qualifications in the structure of assessment in that it has both internal and external assessments. Comprehensive documentation is provided for teachers which outlines the format of the assessment and also provides sample materials and marking guidelines. A number of papers

dating from 2020 were provided as exemplar material.

Good quality source material is provided for students, including topographic map excerpts and aerial photography. This appears, from the exemplar material provided, to be mostly black and white rather than using significant colour content, such as topographic maps, imagery and supporting imagery. The quality of this source material is higher than some other qualifications, notably the KCSE. A calculator and magnifying glass are available to be used for the examination.

The Cambridge International qualification features no internal assessment. This is slightly unusual at this level as most qualifications require some sort of independent investigation and also some write-up of fieldwork which has been carried out. This stands out from the others in this respect, particularly from the ZIMSEC qualification, which has the highest percentage of continuous assessment at 40%, with 60% summative assessment, making it the outlier in terms of the overall assessment of students. This qualification involves more teacher assessment of student outcomes, including the use of theory tests, community projects and individual projects, and practical tasks. These are scattered through the curriculum and this is something which the NSC also employs to some degree.

Marking

The NSC provides guidance on marking so that teachers can prepare students appropriately and ensure they are clear on the expectations of the paper. This includes both the expected answers and clarification on longer responses where there may be a range of potential answers. This is important as geography can sometimes be open to interpretation and there are different views on issues. There are more multiple-choice questions in the assessment for NSC than in some other qualifications, which only have a few questions of this type.

Skills Coverage

NSC Geography includes clear guidance for teachers on the skills that are to be taught. This goes further than other qualification documents in that it provides several key ways by which these skills can be linked to content, along with clear guidance on the amount of time that should be taken to teach the particular skills content. This should ensure that the skills are given appropriate coverage by teachers.

Some of the map skills questions within the assessment papers are particularly technical. Calculating the average gradient for a truck which is transporting goods to a port moves into the area of engineering or transport management perhaps, but as mentioned earlier, this would also be something that someone employed in a relevant industry may be required to do. This technical and vocational aspect of the skills is a feature of all the African-based qualifications.

All of the qualifications have some mention of Geographical Information Systems (GIS). Some of the questions on the NSC assessment are a little technical in that they relate to the way that GIS works, with terminology related to the nature of base maps and the addition of layers and attributes of images. This is a similar approach to the ZIMSEC and KCSE qualifications. There is some degree of assessment of these skills as well.

The ZIMSEC qualification similarly provides some competency frameworks for teachers to add extra depth to the broader topic areas mentioned in the main curriculum framework section. The NSC approach to assessment of skills is generally consistent with the other qualifications.

Documentation

For details of the subject guides, assessment materials, and mark schemes used throughout this appendix (including years of publication), see **7. Bibliography** in the body of the report.



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