

Social Science

Senior High

Grades 11 and 12

Syllabus

Standards-Based



Papua New Guinea

Department of Education

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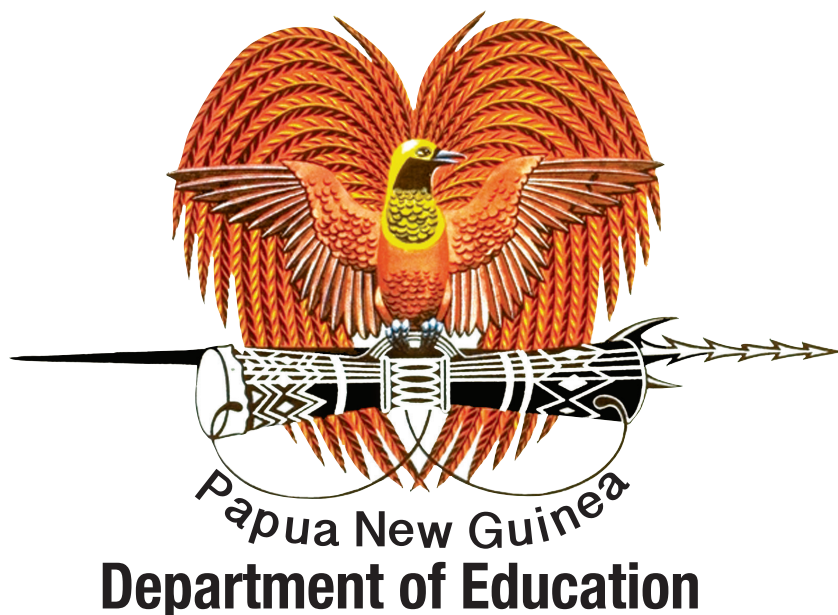
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Issued free to schools by the Department of Education

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Curriculum Panel (CP), Syllabus Advisory Committee (SAC), and Board of Studies (BOS) Committee members are also acknowledged for their consideration and endorsement of the syllabus.

Acronyms

AAL	Assessment AS Learning
AFL	Assessment FOR Learning
AOL	Assessment OF Learning
BoS	Board of Studies
CDD	Curriculum Development Division
CP	Curriculum Panel
CS	Content Standard
EO	Evidence Outcomes
ESD	Education for Sustainable Development
GoPNG	Government of Papua New Guinea
IHD	Integral Human Development
MSD	Measurement Services Division
NCSB	National Curriculum Standards and Benchmarks
NCSF	National Curriculum Standards Framework
NDoE	National Department of Education
OBC	Outcomes-Based Curriculum
OBE	Outcomes-Based Education
PNG	Papua New Guinea
SAC	Subject Advisory Committee
SBC	Standards-Based Curriculum
SBE	Standards-Based Education
SCG	Subject Curriculum Group
STEAM	Science, Technology, Engineering, Arts, and Mathematics
UNCRC	United Nations Convention on the Rights of the Child

Secretary's Message

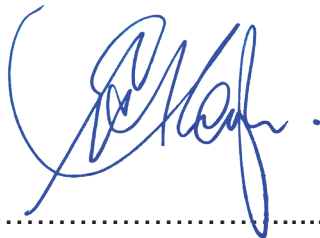
Papua New Guinea's cultural and linguistic diversity calls for a curriculum that would forge a path in building a culturally homogenous and politically and economically stable nation. The Social Science curriculum would be significant in this regard because social, economic, political, historical, and environmental phenomena affect people's lives in profound ways.

Through Social Science, students learn to recognize their own values and the values of others. They explore how values affect the ways in which people respond to issues and make use of opportunities. The study of Social Science helps students to be analytical, critical, and proactive democratic citizens in constructing, deconstructing, and reconstructing civil society organisations and political institutions to create political stability and social cohesion and extend their understanding of how societies function and how people participate in them. Students are challenged to think critically about social issues, to analyse complex situations, and find ways of explaining them, and to think critically about their own and others thinking (metacognition), beliefs, attitudes, behaviours, and characters, and analyse the factors that influence these traits. They will develop an insight and deep understanding of the social, economic, political, cultural, religious, and environmental phenomena affecting human's existence and the development and functions of societies.

Moreover, Social Science curriculum will provide an important platform for students to acquire and master significant Science, Technology, Engineering, Arts, and Mathematics (STEAM) knowledge, skills, values, and attitudes. By engaging in STEAM related activities inside and outside of the classroom and using STEAM problem-solving approach to solve real life problems, will hopefully motivate and prepare students to pursue undergraduate and postgraduate STEAM related courses in institutions of higher education and pursue STEAM related careers.

Teachers are encouraged to read and understand the Social Science core ideas, processes, skills, values, attitudes, and pedagogies outlined in this syllabus and the teacher guide. Creative teaching and learning activities should be used to teach the Social Science content.

I approve and commend this Grades 11 and 12 Social Science Syllabus to be used by teachers in all Senior High Schools throughout Papua New Guinea.



.....
UKE W. KOMBRA, PhD.
Secretary for Education

Introduction

Individuals possess unique traits that shape and are shaped by the various social groups that they belong to. These social groups and institutions can range from a family to a religious, social, economic, political, or cultural unit. These groups are made up of individuals who make up the status quo that decides on who will govern them, the type of goods and services they produce and/or consume, the type of social, political, economic, and religious ideologies they will embrace, adhere to, and practice, who their political allies will be, and, thereby, creating regions, alliances, and relationships across the globe.

The study of Social Science calls first of all for all students to examine their own personality and behaviour as well as the core values and norms of the social groups they belong to. Simultaneously, students should examine individuals and groups who have shaped the history of mankind in their communities, countries, regions, and globally. In this way, the students will be challenged to cultivate good citizenship traits while studying, develop good work values, ethics, and morals, and cultivate and possess good citizenship values and attitudes to enable them to live, work, and study anywhere in the world.

Social Science challenges students to be proactive in the democratic process by understanding their rights and responsibilities as well as respecting those who do not share their views. It will provide the pedagogical framework for empowering students and enabling them to critically construct, deconstruct, and reconstruct ideologies, policies, and institutions of society to understand in-depth their underlying principles and the values, perspectives, and practices they advocate and privilege. They will examine and become conscious of the impact of economies on individuals, societies, and countries, and importance economic literacy to living and working in the 21st century economy and society.

On the environment front, Social Science enables students to examine their symbiotic relationship with the natural environment. It provides a platform to permit them to recognize the opportunities and limitations posed by the different natural environments that contain diverse resources for human use. At the same time, it will ensure that they understand the biological and physical systems and cycles that drive the environment into forming resources needed by humans. By studying environment, students will develop an understanding that human actions can impact natural systems which will in turn affect human (social) systems. Students will be equipped and prepared with essential environment proficiencies to live in harmony with fellow humans and the natural environment by recognising and addressing human actions that threaten the survival of people and sustainability of environments.

Social Science is to be timetabled for 240 minutes for six periods per week for Grades 11 & 12 (40 minutes x 6 periods).

Aims and Goals

The ultimate aim of education in PNG is to prepare children for careers, higher education, and citizenship. To achieve this aim, a number of enabling aims and goals have been formulated based on evidence. The ultimate aim and the enabling aims and goals are closely linked. The enabling or operational aims and goals are described here.

Aims and Goals of Standards-Based Education and Curriculum

Curriculum aims and goals articulate the outcomes that will be achieved in the long-term and the medium-to-long term. They embed the development and educational aspirations of PNG and its citizens. These have been influenced by evidence from the analysis of context and research on teaching and learning, and on social, economic, political, technological, and cultural developments. There is a close link between the aims and goals of the curriculum. This is important for ensuring that the chain of learning results is clear.

Aim 1: Students will acquire essential and relevant knowledge, skills, values, and attitudes that will prepare them for careers, higher education, and citizenship.

Goals

Students will be able to:

- (a) acquire essential in-demand knowledge and employability skills, and values, and attitudes required for working, studying, and living in the 21st century.
- (b) achieve internationally comparable and high academic standards, and attain essential proficiencies that will enable them to make a smooth transition from secondary to post-secondary institutions, pursue a variety of career pathways, and live purposeful, productive, responsible, and harmonious lives.
- (c) acquire and use intellectual, emotional, cultural, physical, creative, vocational, recreational, and spiritual knowledge, skills, values, and attitudes as bases for living fulfilling, purposeful, and productive lives in communities in which they choose to live.

Aim 2: Students will achieve internationally comparable and high academic standards in English, Mathematics, Science, Technology, Engineering, Social Science, Character and Social Development, Citizenship and Christian Values Education, Business and Commerce, Agriculture, Arts, Physical Education, and Industrial Arts and Technology.

Goals

Students will be able to:

- (a) read and comprehend a variety of texts, communicate orally and in writing, use different approaches and modes of communication, identify different purposes of communication, and understand and appreciate PNG's languages and the languages of people from different cultures.
- (b) understand and apply mathematical reasoning, statistical thinking, processes, formulas, and concepts to solve different mathematical problems.
- (c) examine and apply scientific inquiry, reasoning, thinking, processes, and concepts to solve problems and improve real life situations. And understand the importance of logical and abstract thinking in the solving of problems, the importance of mathematics in science reasoning, and recognize the role of science in every aspect of life.
- (d) attain Science, Technology, Engineering, Arts, and Mathematics (STEAM) education literacy and become proficient in the use of STEAM principles and skills to solve problems posed by both the natural and physical environments by developing creative and innovative solutions.
- (e) acquire fundamental knowledge and skills in computer, communications, and construction technology and attain essential proficiencies that will prepare them for careers and higher education programs in computer, communications, and construction technology related fields.
- (f) investigate and develop an in-depth understanding of how people interact and relate to each other and their places, examine the different social, economic, political, environmental, natural, and physical systems, processes, structures, and organisations, and appreciate the cultural and language differences that exist amongst people.
- (g) analyse and critically reflect on the essential social and relationship values and skills, health and peace values and attitudes, and problem-solving and conflict management skills needed for social and character development, social cohesion, development of healthy and peaceful families and communities, and caring for the natural and physical environments.
- (h) understand the significance and purposes of Biblical values and principles in the shaping of personal character and personal conduct, developing and adhering to moral and ethical standards in one's conduct and relationships, and preparation for eternal life.
- (i) examine their civic and citizenship responsibilities, the importance of these responsibilities to harmonious living and maintaining social cohesion, and community and national development and well-being.

- (j) develop an in-depth understanding of business and commerce principles, processes, concepts, and practices, including e-business and e-commerce, and use the knowledge, skills, values, and attitudes learnt and mastered to start and manage their own businesses.
- (k) acquire knowledge, skills, values and attitudes required for learning and practice of arts, and the application of knowledge and skills to express themselves, promote PNG's cultures, and make a living.

Aim 3: Students will attain both regional and internally comparable standards in literacy and numeracy.

Goals

Students will be able to:

- (a) develop fluency in reading and comprehension to enable them to decode, critique, critically analyse, and synthesize a variety of texts.
- (b) acquire essential writing and publication proficiencies to enable them to write and publish a variety of texts.
- (c) learn and demonstrate proficiency on the essential mathematics knowledge, skills, values, and attitudes and use these to solve problems in real life situations.
- (d) attain the expected levels of literacy in Science, Social Science, Character and Social Development, Citizenship and Christian Values Education, Industrial Arts and Technology, Business and Commerce, Agriculture, Arts, Physical Education.

Aim 4: Students will continue to develop their full potential and empowered to be dynamically involved in the process of freeing themselves from oppressive situations, contribute to promoting the common good and welfare of society, and develop a sense of responsibility for oneself and others.

Goals

Students will be able to:

- (a) recognize and critically analyse the situations that oppress and marginalize them and others, and take appropriate individual and collective actions to transform these situations in order to improve their wellbeing and the well-being of others.
- (b) develop a positive attitude towards community service and responsibility for the well-being of the community while being responsible for their personal behaviour and conduct and hold others to account for their behaviour and attitudes in the interest of public good.

- (c) develop effective communication and social skills, and think critically and rationally when solving problems and making decisions at different stages of their personal development.
- (d) interpret language and cultural expressions attributed to oppressed and marginalized groups by dominant and powerful groups and challenge these in order to improve their situations.

Aim 5: Students will contribute towards the development of knowledge-based economy and society, and the transformation of Papua New Guinea from a developing to a middle income country by continuously learning and applying knowledge, skills, values, and attitudes to improve the prevailing social, economic, political, cultural, scientific, and technological conditions.

Goals

Students will be able to:

- (a) value creativity and innovation; the spirit of autonomy and independence; and foster an attitude to knowledge creation and application to improve working and development conditions.
- (b) obtain relevant knowledge, skills, values, and attitudes that will enable them to be multi-skilled, lifelong learners, and knowledge-based workers capable of functioning in a changing world and work environment.

Aim 6: Students will continue to learn throughout their lives and apply the outcomes of learning to improve their personal and collective learning, growth and development, and the quality of life for oneself and others.

Goals

Students will be able to:

- (a) think sensibly for themselves and to develop as individual members of a community.
- (b) develop and foster an attitude towards continuous learning as a basis for improving one's own knowledge, thinking, practice, value and belief system and hence improve life outcomes.
- (c) cultivate a positive attitude towards research, reflection, and critical analysis as bases for lifelong learning.

Aim 7: Students will acquire essential knowledge, skills, values, and attitudes necessary for the building of peaceful and safe communities, living together, upholding the principles of a democratic state and society, building social cohesion, promoting equity and social justice, and ensuring economic prosperity for all.

Goals

Students will be able to:

- (a) value justice, responsibility, equality between men and women, mutual respect and cooperation, and actively contribute to the building and fostering of peaceful, safe, and inclusive communities.
- (b) use effective communication skills and think creatively in a rational manner and develop better problem solving and decision making skills at appropriate levels and ages.
- (c) examine in-depth problems at hand by collecting and using evidence to make informed decisions about the best strategies to address the problems and achieve results that are satisfactory to all stakeholders.
- (d) become happy, healthy and useful members of their society.
- (e) analyse the principles of democracy, how a democratic government works, citizen's democratic rights and responsibilities, and the weaknesses and the strengths of the democratic ideology.

Aim 8: Students will foster an understanding and an appreciation of PNG's many cultures and languages, their influence on the construction and representation of Papua New Guinean's identities, and the value, knowledge, and belief systems that underlie these diverse cultures and languages; while embracing the cultural and linguistic differences, and take actions to sustain the good and eliminate the bad aspects of cultures.

Goals

Students will be able to:

- (a) have pride and responsibility towards their cultures and languages, and preserve and promote one's identity through language and culture while at the same time learning, appreciating, and tolerating other cultures and languages, both local and international.
- (b) communicate with other people through written and spoken language, through mathematics and through other ways such as art, music and movement.
- (c) investigate the underlying knowledge, value, and belief systems of different cultures and languages, and take appropriate individual and collective actions to eliminate aspects of cultures that hinder the building and fostering of healthy relationships and peaceful and safe environments, that are oppressive and detrimental to human development, and detrimental to the promotion of inclusive development and a hindrance to promoting and safeguarding fundamental human rights.

Aim 9: Students will develop their knowledge and an appreciation and respect for the natural environment and physical and human resources, and the need to develop these in ways that are sustainable for the benefit of current and future generations.

Goals

Students will be able to:

- (a) cultivate and maintain an attitude to respect life, care for nature, and contribute to the protection of the environment.
- (b) help develop and sustain Papua New Guinea's environment and its physical and human resources, for the benefit of current and future generations.
- (c) become wise guardians of Papua New Guinea's resources.
- (d) act responsibly and within the spirit of environment sustainability in the use of natural resources with the knowledge that local actions on environment have both local and global consequences.

Aim 10: Students will develop healthy self-concepts; contribute to the establishment and sustainability of healthy communities; the eradication of common diseases; and improvement in the health status of all citizens.

Goals

Students will be able to:

- (a) demonstrate an understanding of the different stages of child development from conception to childhood, adolescence to adulthood.
- (b) show awareness and understanding of the importance of building and promoting healthy life styles and healthy communities as prerequisites for healthy living and life style.
- (c) investigate common diseases in PNG and their causes and symptoms, appreciate the consequences and impact they have on the citizens, look at what is being done to eradicate these diseases, and know how they can contribute to eradicating these diseases.

Aim 11: Students will understand that parenthood is a lifelong responsibility however, in exercising this right they should be aware of the impact of uncontrolled population growth and its consequences on families, communities, the environment, available resources, and the nation.

Goals

Students will be able to:

- (a) appreciate the importance of having a family unit and show awareness of parental responsibilities, recognize the consequences of the decisions they make regarding the size of their families, recognizing the fact that the quality of life for their children depend on the decisions they make.
- (b) aware of the contributing factors to population growth and demonstrate an understanding of the consequences of uncontrolled population growth.

Aim 12: Students will acquire knowledge, skills, values, and attitudes required for social and economic development, for gainful employment and self-employment, and for transforming individual and collective livelihoods and alleviating poverty.

Goals

Students will be able to:

- (a) acquire knowledge, skills, values, and attitudes required for active participation in the formal and informal economy as means for making a sustainable living.
- (b) explain and apply the concepts and practices of self-reliance and personal viability to create own employment as an alternative to formal employment.
- (c) foster an attitude towards work by acquiring relevant values, knowledge, and skills that will prepare them to pursue vocational skills occupations.

Aim 13: Students will develop required values and respect for oneself, others, and the community, and use these as a basis for developing effective national and global citizenships traits.

Goals

Students will be able to:

- (a) learn about and show awareness about past and present outstanding and model citizens whose character, moral standing, ethical standards, and contributions have shaped PNG and the world.
- (b) demonstrate awareness and understanding of their civic and citizenship roles and responsibilities, the importance of performing these responsibilities in a transparent and accountable way for the greater good of PNG and their communities, and the consequences of neglecting these roles and responsibilities.

- (c) develop and foster values, behaviours, attitudes, and communication competencies required to live together and in harmony with peoples of other cultures and linguistic groupings.
- (d) show awareness and concern for the welfare and the rights of others, contribute to the promotion of justice for all and the empowerment of the oppressed and marginalized people, promote gender and social inclusion as the basis for protecting and promoting the rights of all.

Overarching Curriculum Principles

Curriculum principles identify, describe, and focus attention on the important concerns that must be addressed when developing the curriculum at all levels of schooling. They are based on significant social, economic, political, cultural, religious, philosophical, environmental, and educational values and beliefs. Curriculum principles are evidence-based and influenced by best practice. The following principles underpin the design, development, and implementation of SBC in PNG.

Relevance

The national curriculum should target the national, community, and personal social, economic, political, cultural, environmental, and spiritual, development needs and aspirations. Curriculum should aim to prepare children for careers, higher education and citizenship. Children should be equipped with essential, in demand knowledge, skills, values, and attitudes to meet the demands and challenges of working, studying, and living in a complex, knowledge-based, and technology driven economy and society of the 21st century. This can be achieved through the development of rigorous and comparable learning standards, design, development, implementation, and monitoring of a quality SBC, and embedding of values and critical, creative, decision-making, reasoning, problem-solving, high level, 21st century, and STEAM skills in the curriculum.

The national curriculum will enable teachers to support students' learning by encouraging teaching and learning in real-life contexts, and providing opportunities for students to address the problems posed by the natural and physical environments by developing creative and innovative solutions. This means students will relate and use the knowledge, skills, values and attitudes learnt in different subjects to real life situations.

Multiculturalism

PNG is blessed and fortunate to have so many languages and cultures. The diversity of our cultures is the source of our knowledge, skills, attitudes, and values. As a multicultural society, we must protect, promote, and respect our many cultures and languages. There are many people from our own ethnic groupings and from other countries with their own cultures living and working together in PNG. This is the most multicultural country in the world. We must ensure that we promote and share our cultures with the rest of the world. We must also critically examine and address the problematic aspects of our cultures.

Ethics, Morals, and Values

PNG is striving to create a society in line with democratic liberal traditions. The citizens of PNG should recognise appropriate social relationships based on sound human and religious ethics, morals and values. These are

required for interaction with families and people from other provinces and nations. The process of socialisation requires a belief in the ethics, morals and values of the Melanesian extended family, dialogue with and respect for others and a willingness to conserve and promote those aspects of our traditions, which are consistent with studying, working, and living in the 21st century global society. Socialisation also requires an awareness of the interdependence of individuals, societies, and nations in the postmodern world. It requires involvement with family, school, church, community, and the world beyond.

Integral Human Development

Integral human development focuses on the holistic development of every person. National curriculum should provide opportunities for all children to receive an education that will enable them to:

- be dynamically involved in the process of freeing themselves from every form of domination and oppression so that they will have the opportunity to develop as integrated persons in relationship with others. This means that the national curriculum must integrate and maximise socialisation, participation, liberation, and equality;
- be aware of human potential and the willingness to develop and maximize this potential so that each individual can solve his or her own problems, contribute to the common good of society, and maintain, promote, and improve the learning, working, and living conditions of all, and
- acquire and consistently use Biblical and spiritual values, personal, social and sustainability values, and work, relationship, health, and peace values in their lives.

PNG is a rapidly changing society and faces many challenges. To face these effectively, an individual must strive to become an integrated person and to work with others to create a better community.

The process of integral human development calls for a national curriculum, which helps individuals to:

- identify their basic human needs;
- analyse situations in terms of these needs;
- see these needs in the contexts of spiritual and social values of the community; and
- take responsible action in co-operation with others.

The success of a national curriculum requires the integrated involvement of all the agents of education such as the home, church, school, and community.

The Right to Healthy Living

The health status of PNG is very low. All citizens have a right to clean water, a nutritious diet, improved sanitation, and appropriate and better local health services. Students need to learn attitudes; skills, and knowledge that will help them become productive, healthy, and contented citizens of PNG. They need to be given a set of skills that will enable them to improve their own and their community's health in order to improve the health status of PNG. The national curriculum will ensure that students have the opportunity to learn about healthy living and lifestyles.

Nation Building and National Unity

Our nation is young and there is still a great deal of nation building to be done. Students need to be given the skills to undertake this task and participate in nationally organised events. The national curriculum should enable them to understand how Papua New Guinean societies work and how they can be a useful part of these societies. Students should learn that they have a place in PNG and that PNG has a place in the world as a whole. They will be able to help PNG develop a national identity as one nation if they learn to:

- work together with tolerance;
- respect one another, their traditional ways and resolve problems peacefully;
- respect and act in the spirit of the national Constitution;
- recognise their capabilities and develop their own talents;
- participate in the development of the national community; and
- protect and safeguard the national wealth and resources.

Sustainability

The natural environment of PNG is as diverse as its cultures. It is often under threat from uncontrolled exploitation, over logging, abuses associated with mining, over fishing, dynamiting of reefs, and dumping of toxic wastes. Our diverse cultures are also under threat from over exploitation and commercialisation of sacred cultural practices. Our cultural traditions are not being handed down from generation to generation. The national curriculum will guide students to further appreciate, respect, and value their natural environment, cultures, customs, and traditions. It will give them the skills and knowledge to identify problems and issues and to take action to sustain these aspects of life in PNG.

Gender Equity and Social Inclusion

Gender is what it means to be a woman or a man. Gender refers to those behaviours and attitudes that are culturally accepted as ways of being a woman (femininity) and being a man (masculinity). Addressing gender issues goes well beyond ensuring that females have the same

opportunities as males to receive an education. A person's experiences determine the way they understand and make sense of the world. Gender is also culturally determined. In PNG, there is a need for sensitivity to local cultural practices and values, with respect to traditional roles for males and females. The national curriculum will provide students with subjects, resources, activities, and experiences that value the needs of both girls and boys.

Females are generally a disadvantaged group in PNG. PNG does not have in place a good record about gender equity for females. Violence against females is widely acknowledged as a serious problem. A number of health and other indicators of human development show that females have a lower quality of life than males. Females have lower literacy rates and lower income levels than males. Males hold nearly all positions of leadership, authority, and decision making.

Men hold most senior positions in government departments and the community. It is a similar situation in the Department of Education, provincial education divisions, and schools. The national curriculum will provide students with opportunities to consider these problems and ways of addressing gender issues.

Inclusive Curriculum

The national curriculum is inclusive and designed to meet the needs of all students irrespective of their abilities, gender, geographic locations, and cultural language, or socioeconomic backgrounds. The national curriculum must be implemented by teachers in ways that are inclusive of all students at all levels of schooling. Much more can be achieved if parents, community leaders, churches, and schools co-operate and communicate with each other.

Students learn in different ways. It is best to use a variety of methods to teach them. No one method is best. It is true that students are very different and even the same students learn best from different methods at different times. By using a range of teaching methods, it is more likely that the needs of all students will be met. In order to be inclusive of all students, teachers need to cater for a range of physical, social, cultural, emotional, spiritual, and intellectual needs of their students. This can be achieved through using appropriately and carefully planned learning activities, a range of teaching methods and strategies, and thoughtful use of the language of communication.

To be inclusive, teachers will need to ensure that all girls and boys have the opportunity to participate. Teaching practices, including classroom organisation and management, should ensure that girls and boys are able to participate fully in all learning activities. Participation requires that individuals are motivated to achieve the goal of socialisation fully where they are encouraged to develop a sense of obligation for the opportunity to contribute. Through participation, individual creativity can be recognised and encouraged, without losing sight of the principle of communal sharing. Participation is the key to social interaction and can

lead to social mobility. It can also help to conserve and generate knowledge and cultural values for future generations.

Student-Centered Learning

Student-centred learning recognises the fact that no two classes are alike and no two children are the same with respect to their needs. A teacher who uses a student-centred approach will endeavour to create a classroom environment that will motivate students to discover new skills and knowledge. In such an environment, the teacher might focus on teaching students how to learn and help them discover relevant information. It is essential to teach students how to learn while at the same time teaching them important content. A student-centred classroom will usually involve students working together in small groups using activity centres set up in the classroom while the teacher works more closely with one or two students. The national curriculum describes what all students are expected to learn in all subjects. A student-centred approach allows teachers to be more flexible in determining the most effective ways to help all students achieve these learning outcomes

Lifelong Learning

School is an important part of a student's education but learning continues throughout life. The initial experience that students have with the school curriculum is critical in encouraging them to continue learning throughout their lives. Going to school should be an enjoyable and satisfying experience for the students and should prepare them for life after school. Students know many things when they come to school. They will learn many things outside of school and continue to learn after they leave school. The national curriculum should build on what students already know. Teachers should make use of this knowledge and skills. When students are learning new, unfamiliar things, teachers should relate the new things to what students already understand. This important learning will continue throughout life as students increasingly take responsibility for their own learning. Increasingly, students who leave school will look for opportunities to continue their education and to return to school or some other educational or training institutions in order to improve their qualifications.

Language Development Across the Curriculum

The national curriculum will provide opportunities for language development across the curriculum. Language development across the curriculum should be encouraged because all subject areas provide meaningful contexts for purposeful learning. Specific subjects have different language requirements such as, the vocabulary and language features of science and the written and oral genres to narrate, explain, persuade, report, and discuss the particular content of various subjects. The conventions and differences must be explicitly taught in relevant contexts across the curriculum.

Knowledge, Skills, Values, and Attitudes for Careers, Higher Education, and Citizenship in the 21st Century

PNG shapes and is being shaped by the 21st century social, economic, political, cultural, religious, and environmental discourses and practices. It is important to provide opportunities for students to learn in-depth and master the 21st century knowledge, skills, values, and attitudes to prepare them for careers, higher education, and citizenship. There is an increasing demand for knowledge-based workers and workers with qualifications in STEAM globally. This cadre of workers is not available in PNG because education is not geared towards preparing this category of workers. PNG children should be equipped with the necessary 21st century and STEAM proficiencies to ensure that they are marketable globally and can contribute meaningfully to the development of PNG.

Science, Technology, Engineering, Arts and Mathematics

The majority of careers in the 21st century is STEAM related. However, demand for STEAM graduates and experienced workers far exceed the supply of this cadre of workers. What is more, although a slow paradigm shift is taking place, careers in STEAM fields are dominated by males. Females are beginning to venture into these careers but at a very slow pace. There is an enormous gender parity gap in this area. Thus, it is critical for STEAM knowledge, skills, values, and attitudes to be taught from prep to post-secondary school level to provide opportunities for all students to attain STEAM related proficiencies before leaving school. The main aim of this education is to shape students' thinking, motivate, and influence them to develop an interest in careers in the STEAM field, and pursue STEAM related academic programs in institutions of higher education.

Standards-Based Curriculum Principles

The principles of SBC include the following:

- Setting of high academic standards and a careful and continuous assessment and reporting of students' performance against these standards will motivate students to perform at a much higher level.
- Standards allow every student, every parent, and every teacher to share in common expectations of what students should know, understand, and be able to do.
- Students will learn more when more is expected of them in school and at home.
- The setting of clear, measurable, and attainable standards is the key to attaining high academic standards and hence the attainment of the desired quality of education.
- All children are capable of learning and achieving high academic standards, regardless of their backgrounds.
- Students can learn in their own ways and at their own rates.

Protection of Children's Rights

It is paramount that children's rights stipulated in national legal and policy frameworks, and international conventions such as the United Nations Convention on the Rights of the Child (UNCRC) are recognised, promoted, protected, and safeguarded by everyone and every organisation working and dealing with children's welfare and well-being. A child is defined by UNCRC as a human being below the age of 18 years. However, definitions of a child may differ based on the socio-cultural contexts of different countries. Notwithstanding the differences in definitions, biologically, a child is generally anyone between birth and puberty.

The four core principles of UNCRC underpinning children's rights are:

- non-discrimination.
- devotion to the best interests of the child.
- the right to life, survival and development.
- respect for the views of the child.

Children's rights are human rights and, therefore, they should be promoted and safeguarded by the whole of the education system. They should permeate all education plans, policies, programs, and activities, and firmly embedded in the school curriculum, teaching and learning practices, and the overall management of the education system.

Social Science Rationale, Aim and Goals, and Guiding Principles

Rationale

Social Science integrates the fundamental ideas of sociology, anthropology, archaeology, politics, economics, geography, history, and environment. These ideas are sequenced and scoped appropriately to provide students' expanded learning opportunities to learn and develop an in-depth understanding of each concept and progressively master it from prep to grade 12.

Social Science addresses social, political, economic, geographic, historical, cultural, and environmental processes that allow students to make informed decisions for personal and public good. In a world that is highly globalised through transport, technology, and communication. Social Science equips an individual to reflect global citizenship traits through knowledge, skills, values, and attitudes acquisition.

Social Science develops the knowledge, skills, values, and attitudes, and the processes necessary to understand historical and present-day connections among diverse individuals and groups. It helps students to understand the rationale and the interrelationship between individuals and groups socially, culturally, religiously, economically, and politically. Moreover, the study of the environment is aimed at highlighting the interconnectedness of human systems and physical environmental systems. It is envisioned that the Social Science curriculum will create citizens that will ensure the sustainability of human systems by first ensuring the sustainability of natural systems since human systems thrive on these systems.

Ultimate Aim

The primary purpose of Social Science is to help young people make informed and reasoned decisions for the public good as citizens of a culturally diverse, democratic society in an interdependent world.

Goals

Students will be able to:

- i. develop critical thinking abilities to participate competently and productively as concerned citizens to address societal and global concerns using literature, technology, and other resources.
- ii. investigate how society has evolved to understand historical and present-day connections among diverse individuals, groups, places, and the environment.
- iii. examine the diversity and interdependence of the world and helps them to recognise the challenges and benefits of living in a world

with multiple cultures, ethnicities, languages, belief and value systems, identities, and ideologies.

- iv. explore the interdependence between human systems and environmental systems to ensure sustainability.
- v. investigate and understand in-depth the different economic paradigms and systems, and acquire essential knowledge, skills, values and attitudes required for active participation in the national and global economic systems, and making a sustainable living.

Guiding Principles

The Social Science curriculum guiding principles can be described as an approach to teaching and learning that is based on both philosophy and practice. It can generally be defined as a curriculum approach that purposefully draws together knowledge, skills, attitudes and values from within or across subject areas to develop a more powerful understanding of key learning concepts. The content of the Social Science curriculum is connected and related in meaningful ways for both the students and teachers.

Furthermore, the Social Science curriculum principles identify, describe and focus attention on the concerns that must be addressed when developing and implementing the Social Science course of study. They are based on significant cultural, social, political, economic, philosophical, theoretical, and education beliefs about teaching and learning. The guiding principles influence the design and the writing of this syllabus.

Given below are the guiding principles for Social Science:

- meaningful, important, challenging, active, and issues based.
- consistent with current research relating to how children learn.
- combining multiple views of environmental issues and importance.
- reflecting a balance of local, national, and global content.
- promoting achievements in the processes of governance, communication, investigation, and participation.
- promoting literacy through the learning of Social Science content.
- developing knowledge, skills, and attitudes for lifelong learning.
- promoting the development of informed and active citizens.
- supporting the realization of an effective learning environment.
- promoting time and interventions of technology in learning and teaching social science.
- promoting culture, economy, and resource-based learning.
- promoting the use of diverse learning and assessment strategies.

STEAM Rationale, Aim and Goals, and Guiding Principles

Rationale

The majority of careers in the 21st century is STEAM related. However, demand for STEAM graduates and experienced workers far exceed the supply of this cadre of workers. What is more, although a slow paradigm shift is taking place, careers in STEAM fields are dominated by males. Females are beginning to venture into these careers but at a very slow pace. There is an enormous gender parity gap in this area. Thus, it is critical for STEAM education to be introduced and taught from prep to the higher education level to provide opportunities for students to study in-depth and master the STEAM related knowledge, skills, values, and attitudes, and engage in real life experiences to learn and have hands-on experience of applying STEAM concepts, processes, ideas, skills, values, and attitudes to solve real problems and come up with creative and innovative solutions.

Ultimate Aim

The ultimate aim of STEAM education is to develop a STEAM literate society in which all citizens have the expected level of STEAM literacy. STEAM literacy refers to an individual's:

- knowledge, skills, values, and attitudes to identify problems and questions in life situations, explain the natural and design world, and draw evidence-based conclusions about STEAM issues;
- understanding of characteristic features of STEAM disciplines as forms of human knowledge, inquiry, and design;
- awareness of how STEAM disciplines shape our material, intellectual, and cultural environments, and
- willingness to engage in STEAM related issues and with the ideas of STEAM as a constructive, concerned, and reflective citizen.

Goals

The following are the goals of STEAM:

- (i) Provide students with STEAM related experiences and opportunities to use STEAM concepts, ideas, and skills to solve problems relating to the natural and physical worlds, and use the evidence to make informed decisions about the interventions.
- (ii) Build positive attitudes and embed essential STEAM values in children thereby motivating them to choose STEAM related careers or undertake STEAM related academic programs or courses of study.
- (iii) Provide students opportunities to work in collaboration and partnership with people engaged in STEAM related careers or disciplines to learn about how STEAM skills, concepts, processes,

and ideas are applied in real life.

- (iv) Build a pool of STEAM workers who can contribute to national and global development and progress.
- (v) Enable children to achieve high academic standards

Guiding Principles

Integration and application of knowledge and skills in real life situations

Integration of STEAM knowledge and skills and their application to real-life situations inside and outside of the classroom setting will enable students to explain how STEAM disciplines shape our material, intellectual, cultural, economic, social, and environmental contexts.

Emphasis is on the learning and the application of STEAM knowledge and skills to investigate, explain, and solve problems rather than on content

STEAM education emphasizes the learning and the application of knowledge, and skills to investigate, explain, and solving physical and natural problems rather than on in-depth teaching and learning of STEAM content.

STEAM related knowledge and skills are used to investigate, explain, and solve problems relating to the natural and physical environments

STEAM education focuses on providing the learners real life experiences of how STEAM related skills, concepts, processes, ideas, principles, values, and attitudes are applied and used to identify problems and questions in real life situations, explain the natural and physical world, and draw evidence-based conclusions.

Core Curriculum

A core set of common learning's (knowledge, skills, values, and attitudes) have been integrated into the curriculum to provide all students an opportunity to acquire and master these before they are career, higher education, and citizenship ready. The core curriculum includes:

- Cognitive skills (critical and creative thinking);
- Reasoning, problem-solving and decision-making skills;
- High level thinking skills (analysis, evaluation and synthesis);
- 21st century skills;
- STEAM principles and skills;
- Spiritual values and virtues;
- Reading, writing and communication skills, and
- Essential values and attitudes.

The above knowledge, skills, values and attitudes should be taught and assessed by all teachers from prep to grade 12. These are reinforced at each school grade and school level to enable students to become proficient in their application in different careers, higher education and citizenship contexts.

Essential Knowledge, Skills, Values, and Attitudes

Students' level of proficiency and progression towards the attainment of content standards will depend on their mastery and application of essential knowledge, skills, values and attitudes in real life or related situations.

Essential Social Science knowledge, skills, values, and attitudes have been integrated into the content standards and benchmarks. They will also be integrated into the performance standards. Teachers are expected to plan, teach, and assess these in their lessons.

Provided here are examples of different types of knowledge, processes, skills, values and attitudes that all students are expected to learn and master as they progress through the grades. These are expanded and deepened in scope and the level of difficulty and complexity are increased to enable students to study in – depth the subject content as they progress from one grade to the next.

Types of Knowledge

There are different types of knowledge. These include;	
<ul style="list-style-type: none"> • Public and private (privileged) knowledge • Specialised knowledge • Good and bad knowledge • Concepts, processes, ideas, skills, values, attitudes • Theory and practice • Fiction and non-fiction • Traditional, modern, and postmodern knowledge 	<ul style="list-style-type: none"> • Subject and discipline-based knowledge • Lived experiences • Evidence and assumptions • Ethics and Morales • Belief systems • Facts and opinions • Wisdom • Research evidence and findings • Solutions to problems

Types of Processes

There are different types of processes. These include;	
<ul style="list-style-type: none"> • Problem-solving • Logical reasoning • Decision-making • Reflection 	<ul style="list-style-type: none"> • Cyclic processes • Mapping (e.g. concept mapping) • Modelling • Simulating

Types of Skills

There are different types of skills. These include:

1. Cognitive (Thinking) Skills

Thinking skills can be categorized into **critical thinking** and **creative thinking** skills.

i. Critical Thinking Skills

<p>A person who thinks critically always evaluates an idea in a systematic manner before accepting or rejecting it. Critical thinking skills include;</p>	
<p><i>Analysis Skills</i> – Analysis skills involve examining in detail and breaking information into parts by identifying motives or causes, underlying assumptions, hidden messages; making inferences and finding evidence to support generalisations, claims, and conclusions.</p>	<p><i>Evaluation Skills</i> – Evaluation skills involve justifying and presenting and defending opinions by making judgments about information, validity of ideas or quality of work based on set criteria.</p>
<p>Key words</p>	<p>Key words</p>
<p>Analyse, compare, contrast, classify, distinguish, infer, explain, separate, select, categorise, connect, differentiate, discriminate, divide, order, point out, prioritise, sub-divide, survey, advertise, appraise, breakdown, calculate, conclude, correlate, criticize, devise, deduce, arrange, discover, establish, examine, organize, outline, investigate, examine, simplify, see, research, recognize, highlight, in-depth, discuss, list, find, group, divide, focus, question, experiment, test, illustrate, identify, deconstruct, simplify.</p>	<p>Evaluate, criticize, order, appraise, judge, support, compare, decide, discriminate, recommend, summarise, assess, choose, convince, defend, estimate, find errors, grade, measure, predict, rank, score, select, test, argue, conclude, consider, monitor, check, debate, determine, justify, explain, give reasons, interpret, opinion, validate, value.</p>

ii. Creative Thinking Skills

<p>A person who thinks creatively has a high level of imagination, able to generate original and innovative ideas, and able to modify ideas and products. Creative thinking skills include;</p>
<p><i>Synthesis/Creative Skills</i> – Synthesis skills involve changing or creating something new, compiling information together in a different way by combining elements in a new pattern proposing alternative solutions.</p>
<p>Key words</p>
<p>Categorise, combine, compose, create, devise, design, explain, generate, modify, organize, plan, rearranges, construct, deconstruct, reconstruct, relate, reorganize, revise, rewrite, summarise, tell, write, formulate, invent, hypothesise, develop, compile, prepare, produce, arrange, rearrange, assemble, role-play, anticipate, make, predict, act-out, model, build, convert, discuss, elaborate, solve, propose, visualize, imagine, extend, tabulate, transform, integrate, innovate, maximize, minimize.</p>

2. **Reasoning Skills** - Reason is a skill used in making a logical, just, and rational judgment.
3. **Decision-Making Skills** - Decision-making involves selection of the best solution from various alternatives based on specific criteria and evidence to achieve a specific aim.
4. **Problem Solving Skills** – These skills involve finding solutions to challenges or unfamiliar situations or unanticipated difficulties in a systematic manner.

Types of Values

1. Personal Values

Core values	Sustaining values
<ul style="list-style-type: none"> • Sanctity of life • Truth • Aesthetics • Honesty • Human • Dignity • Rationality • Creativity • Courage • Liberty • Affectivity • Individuality 	<ul style="list-style-type: none"> • Self-esteem • Self-reflection • Self-discipline • Self-cultivation • Principal morality • Self-determination • Openness • Independence • Simplicity • Integrity • Enterprise • Sensitivity • Modesty • Perseverance

2. Social Values

Core Values	Sustaining Values
<ul style="list-style-type: none"> • Equality • Kindness • Benevolence • Love • Freedom • Common good • Mutuality • Justice • Trust • Interdependence • Sustainability • Betterment of human kind • Empowerment 	<ul style="list-style-type: none"> • Plurality • Due process of law • Democracy • Freedom and liberty • Common will • Patriotism • Tolerance • Gender equity and social inclusion • Equal opportunities • Culture and civilisation • Heritage • Human rights and responsibilities • Rationality • Sense of belonging • Solidarity • Peace and harmony • Safe and peaceful communities

Types of Attitudes

Attitudes - Ways of thinking and behaving, points of view	
<ul style="list-style-type: none"> • Optimistic • Participatory • Critical • Creative • Appreciative • Empathetic • Caring and concern • Positive • Confident • Cooperative 	<ul style="list-style-type: none"> • Responsible • Adaptable to change • Open-minded • Diligent • With a desire to learn • With respect for self, life, equality and excellence, evidence, fair play, rule of law, different ways of life, beliefs and • opinions, and the environment.

Content Standards, Benchmarks and Evidence Outcomes

Content standards, benchmarks, and evidence outcomes are all curriculum standards. However, they have specific curriculum purposes. Despite this, these curriculum standards are interconnected and enable the intended learning outcomes to be attained.

Content Standards

Content Standards are broadly stated expectations of what students should know, understand, and be able to do in a particular subject, grade, or school level. They embed essential knowledge, skills, values, and attitudes that all students are expected to learn and master in each strand or unit to prepare them for the next grade or level of schooling.

Benchmarks

Benchmarks are specifications of content standards or more detailed descriptions of a specific level of performance expected of students at particular ages, grades, or levels of development. Benchmarks focus on the essential knowledge, skills, values and attitudes that all students are expected to learn, master and demonstrate proficiency.

Evidence Outcomes

Evidence outcomes are indicators that indicate students' progress towards meeting an expectation at the mastery level. They measure students' mastery and application of knowledge, skills, values, and attitudes at each grade, cluster or school level. They indicate that a student is meeting an expectation or achieving a benchmark at the mastery level. They enable teachers to know if a student can do what he/she was expected to know, understand, and do in real life or relevant situations. Evidence outcomes are given for each strand in each grade to describe what all students should do at the end of the different strands of Social Science.

Content Standards and Benchmarks Coding

The following is the coding system used to code the content standards and the benchmarks to not only make it easier to interpret and understand the relationship between these two standards but also to help with lesson planning and assessment and reporting of students' performance in relation to a content standard.

Grade	Grade is indicated by the first number (for example, 11)
Strand	Strand is indicated by the second number (for example, 11.1).
Content Standard	Content Standard is indicated by the third number (for example, 11.1.1)
Benchmark	Benchmark is indicated by the fourth number (for example, 11.1.1.1)
Thus, the code will read as; Content Standard 11.1.1 and Benchmark 11.1.1.1 .	

Content Overview

Content overview outlines what grades 11 and 12 students will learn in Social Science. Content is organised into five main strands – Geography, History, Political Science, Economics, and Environment. These strands embed the content that all students are expected to learn and master at each grade level. Each strand is further organised into units.

The table below outlines the strands and units for grades 11 and 12.

Strands	Units
1. Geography	Geography Skills
	People and Places
	People and Resources
	People and Environment
2. History	Making Sense of History
	Systems of Power, Authority, and Governance
	Culture and Society
	Development and Sustainability of Societies
	Economic Needs and Wants
	Geographical Influences on Historical Events, People, Places, and Environment
	Historical Inquiry
3. Political Science	Government Systems
	Political Ideologies and Systems
	International Relations
	Civics and Citizenship
4. Economics	Factors of Production and Consumption
	Methods of Production and Distribution
	Regulation of Production, Distribution, and Consumption
	Satisfying Needs and Wants
	Economic Ideologies
5. Environment	Resources and Environment
	The Earth and Its Systems
	Biological Dynamics of the Earth
	Environmental Change and Sustainability

Strand 1: Geography

Rationale

Students gain geographical perspectives on the world by studying the earth and the interactions of people with places where they live, work, and play. Knowledge of geography helps students to address the various cultural, economic, social, and civic implications of life in earth's many environments. It also helps them to understand the different physical, social, economic, political, religious, cultural, and geographical structures and systems, and the consequences of interfering with these systems. Concepts and skills related to geography are integrated in the other Social Science strands – History, Politics, Economics, and Environment. This integration of geographical knowledge, skills, values, and attitudes provides extended opportunities for reinforcing what students learn in Geography. This will enable students to appreciate the importance and relevance of geographic knowledge, skills, values, and attitudes in the learning of other subjects.

Careers, higher education, and citizenship readiness knowledge, skills, values and attitudes are taught at this level of education. Physical, human, and economic geography are taught at a more complex and advanced level. In addition, political and religious geography are taught to allow students to develop an understanding of the distribution of these geographic characteristics and examine their impact on people's thinking, perceptions, actions, practices, cultures, movement, and behaviours. The subject content and learning activities provide essential knowledge, skills, values, and attitudes that students will require to function effectively in the work and higher education environments, and as productive and useful citizens. Grades 11 and 12 students are expected to master the following essential knowledge, skills, values and attitudes to prepare them for careers, higher education, and citizenship.

Evidence Outcomes

By the end of grades 11 and 12, all students can:

- compile and interpret geographical information using geographical tools such as maps, texts, graphs, tables, charts and other schematic representations.
- elaborate on how natural processes and human influences contribute to creating regions.
- distinguish regions according to physical, human, economic, political, and religious characteristics.
- construct political and religious profiles of various regions using available data.
- use political and religious maps to show the types and distribution of political and religious ideologies across the globe.
- interpret political and religious maps, and indicate changing patterns in the spread of particular religions or ideologies.

- compile political and religious information of different countries using various geographic tools and data sources.
- examine the effect of Earth's tilt, rotation, and revolution on the global temperature distribution, world and regional winds, ocean currents, climatic region and world biomes.
- investigate Earth's rotation, evolution, and tilt and the individual and combined features they create.
- define and examine oceanographic geographical and biological features.
- assess the world's population distribution, migration patterns and demographics of developed and developing countries.
- analyse the natural and human factors that account for the world population distribution patterns.
- investigate the socio-economic and environmental features of developed and developing economies.
- analyse the structure and the composition of the earth.
- explain the natural processes occurring inside and outside the Earth's crust and the associated outputs, landforms, and risks and hazards.
- examine the concept of Green House Effect.
- research the process of global warming and climate change.
- identify and analyse the factors contributing to global warming and climate change.
- analyse the impact of climate change on the environment and the people.
- investigate and interpret cases of impact of climate change in Papua New Guinea and elsewhere.
- critique various national and global strategies, agenda, and actions for addressing climate change.
- examine the diverse physical systems and processes and their origins, causes, and effects.

Unit 1: Geography Skills

Geography skills are important as they enable students to observe, inquire, collect, record, construct, analyse, interpret, and communicate valuable information about people, places, resources, and the environment. This unit encompasses the skills required for obtaining, analysing, and interpreting information using geographic tools and drawing conclusions about people, places, resources, and environment.

In grade 11, students will recognize the importance of acquiring spatial reasoning skills through mapping activities to help them make sense of our world. They will also develop awareness of climate and its effect on vegetation and people’s activities by constructing and analysing climate graphs. Moreover, they will analyse and interpret demographic information using population pyramids to understand different population structures.

Grade 12 students will construct, analyse, and interpret political and religious profiles and maps to gain an understanding of national and global issues and ideologies. This will enhance students’ abilities to assess, critique, and make informed decisions on social, economic, cultural, political, and religious issues.

Content Standard 1.1: Students will be able to use geographic tools to collect, analyse, and interpret data about people, places, and environment.

Grade 11 Benchmarks	Grade 12 Benchmarks
<p>11.1.1.1. Compile and interpret geographical information using geographical tools such as maps, texts, graphs, tables, charts and other schematic representation of geographic information.</p>	<p>12.1.1.1. Construct political and religious profiles of various regions using available data.</p>
<p>11.1.1.2. Locate places on a topographic map using a four and six figure grid referencing.</p>	<p>12.1.1.2. Use political and religious maps to show the types and distribution of political and religious ideologies across the globe.</p>
<p>11.1.1.3. Calculate distance, bearing, and gradient.</p>	<p>12.1.1.3. Interpret political and religious maps, and indicate changing patterns in the spread of particular religions or ideologies.</p>
<p>11.1.1.4. Draw cross-sections and calculate the gradient using a topographic map.</p>	<p>12.1.1.4. Compile political and religious information of different countries using various geographic tools and data sources.</p>
<p>11.1.1.5. Construct a climate and vegetation profile of a region using temperature and rainfall (climate) graphs.</p>	
<p>11.1.1.6. Locate a place and the likely vegetation of this place using its temperature and rainfall characteristics presented on its climate graph.</p>	
<p>11.1.1.7. Interpret distinct maps on distinct natural and human geographical features.</p>	
<p>11.1.1.8. Compile demographic information of different countries using a population pyramid.</p>	

Unit 2: People and Places

People and places emphasise the importance of places and the environment to the people. Students will examine and explain how geographic and human characteristics create cultures and define places. It is important that students examine the different climatic regions of the world to appreciate the different climates and vegetation, relationships between various geographic features, and develop an understanding of how people live in different regions of the world and their places and cultures.

In grade 11, students will become aware of the vital interaction that exists between biotic and abiotic environments and its influence on people's decisions, activities, and culture. This will enable them to critique, analyse, observe, and draw conclusions on the way people view, adapt, and alter their environments to suit their needs.

The ever-increasing population and its effects have been, and continue to be, a growing concern locally and globally. Grade 12 students will explore and compare the demographic, socio-economic, and environmental features of developed and developing countries.

Content Standard 1.2: Students will be able to investigate and explain how geographic and human characteristics create cultures and define places.

Grade 11 Benchmarks	Grade 12 Benchmarks
<p>11.1.2.1. Identify and distinguish the world's climatic regions.</p> <p>11.1.2.2. Identify and distinguish the world's biomass.</p> <p>11.1.2.3. Examine the effect of earth's tilt, rotation, and revolution on the global temperature distribution, world and regional winds, ocean currents, climatic region, and world biomass.</p> <p>11.1.2.4. Define and examine oceanographic, geographical, and biological features.</p>	<p>12.1.2.1. Interpret the world's population distribution, migration patterns, and demographics of developed and developing countries.</p> <p>12.1.2.2. Investigate the socio-economic and environmental features of developed and developing economies.</p> <p>12.1.2.3. Explore the significant characteristics or features of mega cities.</p>

Unit 3: People and Resources

Resources are over exploited, poorly managed, unequally distributed, and concentrated in the hands of just a few people and in particular regions and countries of the world. They are becoming scarce and inadequate to meet the demands of increasing populations globally. Thus, people move from one place or country to another to access much needed resources. This trend will no doubt continue given fragmented action and procrastination in addressing factors such as climate change, unequal distribution of resources, poverty, depletion of Earth’s resources, and poor sustainability of resources.

Grade 11 students will investigate and explain the human and physical factors that affect the distribution of people and natural resources and industries, and probe the contributing factors. Grade 12 students, on the other hand, will analyse and make sense of migration data of various regions and countries and draw appropriate conclusions with regards to the migration of people and distribution and consumption of resources. It is important for students at this level to learn and become critically aware of the significant relationship between people and resources and understand that people’s survival and livelihoods depend not only on the availability of adequate resources but also the equal distribution and access to these resources.

Content Standard 1.3: Students will be able to analyse and discuss how human factors and the distribution of resources affect the development of places and the movement of people.

Grade 11 Benchmarks	Grade 12 Benchmarks
<p>11.1.3.1. Examine the physical and human factors that affect the distribution of people.</p> <p>11.1.3.2. Assess and describe the global distribution of natural resources and industries.</p> <p>11.1.3.3. Analyse the factors that influence the distribution of natural resources.</p> <p>11.1.3.4. Investigate the factors that influence the distribution of industries.</p>	<p>12.1.3.1. Use migration data to show and analyse migration trends and patterns of various countries and regions.</p> <p>12.1.3.2. Examine the factors that influence people to migrate.</p> <p>12.1.3.3. Analyse the consequences of migration.</p>

Unit 4: People and Environment

The physical features of the environment we see around us are a result of the natural processes that work both internally and externally to build and shape the surface of the earth. The environment has been modified by humans to satisfy their needs, however in the process, the physical systems and processes are being disturbed. Therefore, we experience extreme physical conditions that affect human's and animal's livelihoods.

Grades 11 and 12 students will examine the structures that shape both the outside and the inside of the earth, and the consequences that result when these structures are disturbed. This will enable students to learn and acquire essential knowledge of the earth's processes and features and become aware of the social, economic, political, and environmental consequences when these are interfered with and disturbed by human actions or natural changes. Therefore, enabling them to respect, care, and protect the environment.

Content Standard 1.4: Students will be able to evaluate the different ways geographic processes and human actions modify the environment, and how the modified environment affects humans.

Grade 11 Benchmarks	Grade 12 Benchmarks
<p>11.1.4.1. Use research skills to investigate and discuss the structure and the composition of the earth.</p> <p>11.1.4.2. Investigate the natural processes occurring inside and outside the Earth's crust and the associated outputs, landforms, and risks and hazards, and assess the social, economic, political, and environmental consequences.</p>	<p>12.1.4.1. Explain the concept of Green House Effect.</p> <p>12.1.4.2. Examine the processes of global warming and climate change.</p> <p>12.1.4.3. Identify and analyse the factors contributing to global warming and climate change.</p> <p>12.1.4.4. Investigate the impact of climate change on the environment and the people from different perspectives.</p> <p>12.1.4.5. Use research skills to investigate and document cases of social, economic, political, and environmental impact of climate change in Papua New Guinea and elsewhere.</p> <p>12.1.4.6. Critique various national and global strategies, agenda, and actions for addressing climate change.</p> <p>12.1.4.7. Show places being affected by climate change on maps and develop and present their profiles to advocate for the reduction of the contributing factors.</p>

Strand 2: History

Rationale

Students need to understand their historical roots and how past events have shaped their world. In developing these insights, students should know what life was like in the past and how things have changed and developed over time. Reconstructing and interpreting historical events provide a needed perspective in addressing the past, the present, and planning for the future.

The essential career, higher education, and citizenship preparedness knowledge, skills, values, and attitudes are taught at this level to prepare students for the work environment, to effectively function in higher education, and to live and work as productive and useful citizens. What students learned at this level of education is intensified and reinforced to enable students to master the essential knowledge of history and the required skills, values, and attitudes before they leave the general education system.

Evidence Outcomes

By the end of grades 11 and 12, all students can:

- use various sources of information to (re) construct and deconstruct the history of people and places in order to interpret and develop an in-depth appreciation of the purposes, the contexts, characteristics, influences, key players, and the consequences.
- use research skills to collect and analyse information about a regional political event that occurred in the past that had a major impact on the political structure and world order.
- interpret historical narratives – fiction and non-fiction – and use the information to explain powerful nation's influence on world politics and social, economic, political, cultural, and religious orders.
- analyse the influence of great leaders on social, economic, religious, and cultural organization, belief systems, thinking, actions and practices, attitudes and behaviours, and global development using personal biographies, symbols, photographs, structures, and other representations.
- use artefacts, archaeological data, primary and secondary sources, technology, photographs, and oral accounts to interpret and explain the culture, cultural practices and ceremonies, socialization processes, and the spread and imposition of cultures globally.
- investigate how technology has impacted on the way people's lives are organized and on the ways in which they comprehend reality, behave, think, act, and relate to each other over time.
- investigate and document a significant world event that had changed the mindset, behaviour, perceptions, and practices of people and governments globally.

- analyse historical research to understand the purpose of the research, the methods used to collect, represent and interpret data, and evaluate the validity of the findings and the conclusions.
- investigate and explain how governments in various regions and the Commonwealth have changed over time.
- explain how citizens participate in decision-making and in the creation, maintenance, and change of governments globally.
- investigate how different systems of power, authority, and governance were/are created, sustained, or changed in the chieftain, dynasty, monarch, feudal, and similar political units/systems.
- identify and analyse the reasons and the contributing factors in the creation, sustainability, and the demise of the Roman Empire, Hitler, Fidel Castro, Stalin, Mussolini, Christianity, Buddhism, Muslim, British Empire, and similar systems of power, authority, and governance.
- analyse the culture of Christianity, its spread throughout the world, and its impact on people, places, and cultures.
- explain the difference between mono-cultural and multicultural societies and evaluate the advantages and disadvantages of each culture.
- examine the migration of people from different cultures and the processes and the challenges of creating and sustaining a national culture, identity, and a cohesive society.
- interpret global migration patterns and analyse the contributing factors, advantages and disadvantages, and regulation of different aspects of migration on people.

Unit 1: Making Sense of History

Students study this unit to see the connectivity and chronology of significant historical patterns. Grade 11 students will use information from the past to understand political events that happened in some of the most powerful nations of the world and examine how these have shaped and impacted political thinking and structures. They will also investigate and explain how great leaders have influenced their nations and the world as a whole. In grade 12, students will use archaeological data to interpret and document the cultures and activities of people. They will also use historical data to investigate the impact of technology over time and the spread of various religions throughout the world.

Content Standard 2.1: Students will be able to discover that people construct knowledge of the past from multiple sources to make sense of historical patterns, periods of time, and the relationship among these elements.

Grade 11 Benchmarks	Grade 12 Benchmarks
<p>11.2.1.1. Use research skills to collect and analyse information about a regional political event that occurred in the past that had a major impact on the political structure and dynamic in the region (for example the dismantling of the United Soviet Union Republic, the rise and fall of Hitler, Cuban rule under Fidel Castro, the invasion of Iraq by the USA and its allies, and the Balkan War).</p> <p>11.2.1.2. Interpret historical narratives – fiction and non-fiction - and use information to explain powerful nations’ influence on world politics and social and economic order at various points in time.</p> <p>11.2.1.3. Analyse the influence of great leaders on social, political, economic, religious, and cultural organization, thinking, behaviour, and global development using personal biographies, symbols, photographs, and development structures.</p>	<p>12.2.1.1. Use artefacts, archaeological data, primary and secondary sources, photographs, oral accounts, and technology to interpret and document the culture, cultural practices, and ceremonies of a group of people over a period of time.</p> <p>12.2.1.2. Research world religions and their spread throughout the world using primary and secondary sources.</p> <p>12.2.1.3. Investigate how technology has impacted the ways peoples’ lives are organized and ways in which they comprehend, behave, think, and relate to each other over time.</p> <p>12.2.1.4. Analyse historical research to understand the purpose of the research, the methods of data collection and interpretation, and the validity of the main findings.</p> <p>12.2.1.5. Investigate and document a significant world event that has changed the mindset, values attitudes, behaviour, perceptions, and practices of people globally (for example, dropping of Atomic Bomb on Hiroshima, Bombing of Pearl Harbor, bombing and destruction of Aleppo in Syria, discovery of penicillin, development of computers, provision of internet, invention of television, radio, airplanes, and bullet trains, etc.).</p>

Unit 2: Systems of Power, Authority and Governance

In this unit, students will study the changes and developments in the systems of power, authority, and governance in different contexts. This will enable them to understand and contribute meaningfully towards future changes and shifts in power, authority, and governance in their own and other countries. What was learnt in preceding grades will be intensified in grades 11 and 12. In grade 11, students will investigate and explain how governments in the Asian Region and the Commonwealth have changed over time, and how change was influenced by foreign governments and interest groups. In grade 12, students will explore how power and authority are exercised in non-government and government contexts and systems, changed, and maintained over time, and analyse the contributing factors.

Content Standard 2.2: Students will be able to critique the processes and probe the reasons for people creating, maintaining, or changing the systems of power, authority, and governance.	
Grade 11 Benchmarks	Grade 12 Benchmarks
<p>11.2.2.1. Investigate and explain how governments in the countries of the Asian Region and the Commonwealth have changed over time.</p> <p>11.2.2.2. Compare the election process of various countries in the Commonwealth and the Asian Region, and its role in the creation, maintenance, or change in the systems of power, authority, or governance.</p> <p>11.2.2.3. Evaluate how individuals and groups influenced government decisions, policies, and development strategies in different countries in the Commonwealth and the Asian Region.</p> <p>11.2.2.4. Investigate how foreign governments, interest groups, multi-corporations, and powerful individuals contribute towards the creation, maintenance, or change in the power systems, authority, and governance of the countries in the Commonwealth and the Asian Region.</p>	<p>12.2.2.1. Examine how systems of power, authority, and governance were/are created, sustained, or changed in chieftain, dynasty, monarch, feudal, and similar political units/systems.</p> <p>12.2.2.2. Identify and analyse the reasons and the contributing factors in the creation, sustainability, and the demise of the Roman Empire, Hitler, Mussolini, Fidel Castor, Stalin, Buddhism, Christianity, British Empire, and other systems of power and authority.</p> <p>12.2.2.3. Evaluate how individuals influenced the creation, sustainability, or change in the systems of power, authority, and governance globally over the years (for example Religious leaders, Presidents of the United States of America, Cult leaders, Separatist Movements leaders, Chiefs, Kings and Queens, dictators, etc.).</p> <p>12.2.2.4. Examine and compare how power systems, authority, and governance are created, maintained, or changed in democratic, communist, monarch, dictatorship, and chieftain societies.</p>

Unit 3: Culture and Society

Culture is at the heart of society. It is the glue that binds society. Cultures of societies have changed over time. People have adopted and adapted to new cultures. Students study cultural diffusion in societies to critically think about culture and cultural transmission that has affected the maintenance and sustainability of cultures and societies. It is important that students understand that culture can be transmitted from one society to another resulting in changes in the cultures and other attributes of societies, particularly those societies in which a foreign culture has been diffused.

In grade 11, students will examine how cultures of different societies are constructed, represented, regulated, and transmitted over time. They will also critically analyse the cultures of dominant groups and how they are diffused over time and its impact on people, including oppression of people from minority or less powerful groups. In grade 12, students will explore cultural diffusion and its impact in some depth by investigating and differentiating the cultures of different religions, examining and distinguishing monocultural and multicultural societies, and examine people migration and its impact on cultures.

Content Standard 2.3: Students will be able to investigate and analyse the different ways of transmitting and diffusing culture, and evaluate their impact on the development and maintenance of societies.

Grade 11 Benchmarks	Grade 12 Benchmarks
<p>11.2.3.1. Examine the ways in which cultures of different societies in the Asian or other regions are (re) constructed, represented, regulated, and transmitted over time.</p> <p>11.2.3.2. Deconstruct culture of a society in the Asian or one other region to understand how it is created, diffused, protected, and managed as well as how it contributes to shaping the identity, the practices, and worldview of its citizens.</p> <p>11.2.3.3. Investigate the way the culture of a dominant power group is diffused across time in Asia or other regions, and its effect on people’s thinking, feelings, behaviour, perspectives, worldviews, practices, etc.</p> <p>11.2.3.4. Compare an oppressive culture with a non-oppressive one, and discuss ways in which the oppressive culture could be changed to emancipate (free) and empower people to improve their life situations and the overall quality of life.</p>	<p>12.2.3.1. Investigate the culture of Christianity, its spread throughout the world, and evaluate its impact on local cultures.</p> <p>12.2.3.2. Analyse and differentiate between the Muslim, Buddhism, and Christianity cultures and their consequences on the people and places they have influenced.</p> <p>12.2.3.3. Explain the difference between monoculture and multicultural societies and evaluate the advantages and disadvantages of each culture.</p> <p>12.2.3.4. Examine the migration of people from different cultures and the process and the challenges of creating and sustaining a national culture and a cohesive society.</p>

Unit 4: Development and Sustainability of Societies

In this unit, students will learn about individuals and groups in communities having similar backgrounds and cultures. Societies are structured and bound together with related ethnicities and ideologies. Individuals and groups contribute to the development, sustainability, and welfare of societies by performing different roles and responsibilities. Governments play a pivotal role in the development and sustainability of societies.

Students in grade 11 will examine and analyse how different governments, groups, individuals, and religions contribute to social, economic, political, cultural, or religious change or sustainability in the Asian Region and globally. They will also investigate and analyse cases where military force from within or outside of the region or particular countries was used to bring about change or maintain the status quo. The concepts of change and sustainability are reinforced in grade 12 but are deepened in scope to allow students to study in-depth the development and sustainability of societies at the global level. Students will evaluate the role and responsibility of different organisations in initiating, fostering, and sustaining change as well as the catalysts for change or sustainability.

Content Standard 2.4: Students will be able to analyse and explain the roles of individuals and groups within a society as promoters of change or guardians of status quo.

Grade 11 Benchmarks	Grade 12 Benchmarks
<p>11.2.4.1. Examine how different governments have contributed to change or sustainability in the Asian region and globally.</p> <p>11.2.4.2. Analyse how the actions of different governments have impacted the Asian region and the world.</p> <p>11.2.4.3. Compare how governments of different countries in the world react to and contribute to social, economic, political, cultural or religious change and sustainability in the region.</p> <p>11.2.4.4. Evaluate the sustainability or change of policies and plans of different governments in the Asian region and the world.</p> <p>11.2.4.5. Identify individuals and groups who have made important contributions towards promoting change or stability in the Asian region and the global context and evaluate the nature of their contributions.</p> <p>11.2.4.6. Examine the role and responsibilities of religion in bringing about change in maintaining the status quo in the Asian region and globally.</p> <p>11.2.4.7. Analyse cases where military force was used or are being used to bring about change or to maintain the status quo in the Asian region and globally.</p> <p>11.2.4.8. Justify the intervention of outside forces or governments in promoting change or maintaining stability in the Asian region and globally.</p>	<p>12.2.4.1. Evaluate the roles and responsibilities of the United Nations in promoting change and ensuring stability.</p> <p>12.2.4.2. Examine the different ways the United Nations promote change and maintain stability in different regions of the world.</p> <p>12.2.4.3. Use research skills to investigate the roles and responsibilities of countries under different global treaties, conventions, and alliances in promoting change and maintaining status quo (for example, Commonwealth Nations, NATO, bilateral and multilateral treaties, Convention on the Rights of the Child, World Trade Organization, International Labour Organization, UNICEF, and Nuclear Arms Treaty).</p> <p>12.2.4.4. Critique the Global Sustainability Goals in terms of their messages, strategies, and intended outcomes.</p> <p>12.2.4.5. Analyse Papua New Guinea's National Goals and Directive Principles with regards to their intent to promote change, maintain the status quo, and ensure sustainable development.</p>

Unit 5: Economic Needs and Wants

In this unit, students will learn about how individual and group decisions are influenced by economic needs and wants. People have many needs and wants. However, it may not be possible for them to produce or procure all the goods and services they want at the same time. They will have to decide on their priorities, taking into account their constraints and what is available, and procure what is important or necessary. Making informed decisions, prioritization of needs and wants, being aware of others needs and wants, being aware of personal and others economic constraints, and the market forces, particularly supply and demand, will ensure that wise decisions are made to satisfy individual, group, family, community, and national needs and wants. These are important economic decision-making, reasoning, analytical, and evaluation skills that all students should develop and become proficient in so that they can conduct themselves in a responsible, wise, considerate, and caring manner.

Grade 11 students will examine the economic reasons for people migrating from one place to another, analyse the contribution of economic factors to regional and global conflicts, and inquire into and report on the role of World Trade Organisation. In grade 12, students will examine the use of child labour, colonisation and exploitation of places, and economic relationships to meet needs and wants.

Content Standard 2.5: Students will be able to investigate and discuss how economic needs and wants affect individual and group decisions.

Grade 11 Benchmarks	Grade 12 Benchmarks
<p>11.2.5.1. Map global migration on the global map and explain the movement of people from various regions due to economic reasons.</p> <p>11.2.5.2. Analyse the reasons for people seeking jobs and working in other countries.</p> <p>11.2.5.3. Analyse the contribution of economic factors to regional and global conflict (for example the South China Sea conflict, the West Papua debate, imposition of trade sanctions on Russia by NATO).</p> <p>11.2.5.4. Evaluate the role of economic factors in conflicts and decisions to use military force globally.</p> <p>11.2.5.5. Use research skills to investigate and report on the role of the World Trade Organization.</p>	<p>12.2.5.1. Examine the use of child labour to meet economic needs and wants.</p> <p>12.2.5.2. Investigate the exploitation of Papua New Guineans and people of other countries and places by powerful nations and people for economic gain.</p> <p>12.2.5.3. Examine the role economic factors play in the colonization of people and places.</p> <p>12.2.5.4. Critically examine the economic relationships between different countries of the world.</p> <p>12.2.5.5. Explain and discuss the concept of ‘instrumental rationality’ and evaluate whether economic means justify the economic ends.</p>

Unit 6: Geographical Influences on Historical Events, People, Places, and Environment

In this unit, students will learn about how geographical factors influence historical events, people, places, and environment overtime. They will analyse and reflect on how these geographical factors hinder development and make informed decisions by developing strategic plans to improve and make changes in future. Students will apply their knowledge of the geographic themes (location, place, movement, region, and human and environment interactions) and skills to understand the interrelationships among people, places, and environment overtime.

Grade 11 students will map out and compare the geographic systems of the Asian Region with those of the Pacific Region, and identify the impact of geographical systems on the social, economic, political, religious, and cultural development of the region. They will compare the development of the region from the past to the present and examine how developments influence and are influenced by global factors. In grade 12, students will investigate how natural events such as tsunami, earthquakes, and cyclones impact various regions and countries. They will investigate and explain the causes of these events and propose strategies for mitigating them.

Content Standard 2.6: Students will be able to analyse and critically reflect on the effects of geographic factors on historical events, people, places, and environment in the past.

Grade 11 Benchmarks	Grade 12 Benchmarks
<p>11.2.6.1. Compare the geographic systems of the Asian Region with those of the Pacific Region.</p> <p>11.2.6.2. Identify and analyse the role geographical systems played and are playing in the social, political, economic, and cultural development and relationships between the different countries of the Asian Region in the past and at present.</p> <p>11.2.6.3. Explore how throughout time industries such as mining, agriculture and logging affected and were affected by different countries in the Asian Region.</p> <p>11.2.6.4. Use research skills to examine how one Asian country influenced and is influenced by regional and global development policies and agenda.</p>	<p>12.2.6.1. Appraise the effects of tsunami on various regions and countries of the World.</p> <p>12.2.6.2. Investigate and compare the devastation caused by earthquakes in various countries and the regions of the world (for example earthquakes in New Zealand, Nepal, and Japan).</p> <p>12.2.6.3. Reconstruct events prior to and after a volcanic eruption in different places (for example events before and after the 1994 volcanic eruption in Rabaul).</p> <p>12.2.6.4. Describe and interpret the causes and effects of cyclones and tornadoes on people, places, and the environment.</p>

Unit 7: Historical Inquiry

In this unit, students will learn about historical inquiry and how it is carried out to investigate and understand historical phenomena. It is important that students understand the principles and processes of historical inquiry so that they can investigate, document, analyse, and interpret historical data, make appropriate inferences, and draw conclusions about people, places, and environment in the past. They will also draw useful lessons about places, people, resources, environment, and social, political, and economic systems in the past and make appropriate suggestions for development and progress in the future.

In grade 11, students will be introduced to the concepts of validity and reliability of historical information. They are provided opportunities to review and evaluate the validity and reliability of historical information about an event, including its contexts. They will also examine the impact of past events on people, places, and environment. Students will be introduced to the notion of metacognition and provided opportunities to examine and evaluate people’s thinking, feelings, and actions with regards to an historical event. In grade 12, students will be taught how to carry out literature reviews and use critical thinking skills to investigate and analyse the role of mass media in influencing people’s thinking, beliefs, perspectives, and action. towards past events. Students will be introduced to critical literacy and its significance in the emancipation and empowerment of people, and hegemony and how it is different from ideology. Using these concepts, they will then investigate and interpret cases where powerful warlords, landlords, dynasties, monarchs, chiefs, political leaders, and governments were changed for public good.

Content Standard 2.7: Students will be able to use historical inquiry skills and relevant methods to analyse and interpret historical events and issues.

Grade 11 Benchmarks	Grade 12 Benchmarks
<p>11.2.7.1. Review an account of a past event or issue in terms of its validity and reliability.</p> <p>11.2.7.2. Examine the social, political, economic, cultural, and religious contexts of an issue or an event that happened in the past in the Pacific Region in terms of the perspectives and actions of key players, the purpose and the intended outcomes, impact on the people, places, or the environment, and influence on regional development.</p> <p>11.2.7.3. Determine the impact of a past regional issue or event on the sustainability of the environment, people, and places.</p>	<p>12.2.7.1. Carry out a literature review of an issue or an event that happened in the past in Papua New Guinea, in the Pacific Region, or globally.</p> <p>12.2.7.2. Use critical thinking skills to investigate and analyse the role of mass media in influencing people’s thinking, beliefs, perspectives and actions towards past events and issues.</p> <p>12.2.7.3. Examine the effect of critical literacy on the oppressed people, the working class, and the powerless over time in challenging and transforming the prevailing oppressive contexts and conditions in order to improve the quality of their lives.</p>

Grade 11 Benchmarks	Grade 12 Benchmarks
<p>11.2.7.4. Evaluate people's thinking and actions with regards to an event or an issue that happened in the past in the region.</p>	<p>12.2.7.4. Use research skills to investigate and interpret cases where powerful warlords, landlords, dynasties, monarchs, chiefs, political leaders, and governments were changed for the perceived good of society.</p> <p>12.2.7.5. Define and differentiate between the terms ideology and hegemony and examine how they have influenced the less powerful groups and the colonized to become subjects and servants of powerful groups in society.</p>

Strand 3: Political Science

Rationale

Members of a society have many wants, which they hope to satisfy. Some of these wants will be satisfied through the economic, family, group, educational, and religious systems. Wants that cannot be satisfied by any of these systems are channelled to the political system. As people's wants enter the political system for satisfaction, they become demands. These demands are screened through the decision-making and other political processes, formal and informal organisations, political units, communities, and citizens. The binding decisions affect social, economic, political, cultural, and religious systems and the participants in them, generating positive and negative support for political systems, regimes, or governments. A good understanding of these key concepts and ideas of Political Science is essential for students to interpret and develop a good understanding of political ideologies and their principles, privileged practices and discourses, and their consequences on the participation of citizens in the political arena and on the satisfaction of citizens' wants and needs. Knowledge about the structures of power, authority, and governance and their evolving functions in the contemporary society is essential if young citizens are to develop civic responsibilities. Young people become more effective citizens and problem solvers when they know how wards, districts, provincial and national governments, and international organisations function and interact.

The study of political ideologies is expanded at the senior high school level. Communism, socialism, dictatorship, and other forms of government are studied in-depth to enable students to examine the different dimensions of these political systems, including their respect for and protection of human rights, conduct of bilateral and multilateral relationships, encouragement and support for people to people relationships, and conduct of social, economic, cultural, and religious activities.

Evidence Outcomes

By the end of grades 11 and 12, all students can:

- identify and examine the main principles of communism.
- explain the purpose (s) of a communist government and illustrate and interpret its structure.
- identify and examine the roles and responsibilities of communist governments.
- analyse the processes of creating, maintaining, or changing a communist government.
- explain the processes and evaluate the principles of decision and law making in a communist country.
- evaluate how citizens' demands are addressed and met through the communist government system.

- identify and examine the main principles of socialism.
- elaborate on the purpose (s) of socialist governments and illustrate and interpret their structures.
- identify and examine the roles and responsibilities of socialist governments.
- analyse the processes of creating, maintaining, or changing socialist governments.
- investigate the processes and the principles of decision and law making in a socialist country.
- evaluate how citizens' demands are addressed and met through the socialist government system.
- differentiate between democracy, communism, socialism, and dictatorship.
- define and explain the difference between ideology and hegemony.
- recognize and interpret national symbols, patriotic activities, and other representations of communist, socialist, and authoritarian nations.
- interpret the ideologies of dictators and fascist, religious, tribal, military, and guided democracy leaders in terms of their purposes, implementation, and consequences on the citizens.
- identify and evaluate multilateral and bilateral relationships between countries practicing different ideologies in terms of the purposes, implementation, and regulation.
- identify and analyse these relationships in terms of addressing national development aspirations and meeting the demands of citizens, creating and fostering peace amongst nations, security, recognizing, promoting, and protecting the rights of citizens, social, economic, political, religious, and cultural exchanges, alleviating poverty, and enabling inclusive development.
- describe and evaluate the roles and responsibilities of the United Nations, World Trade Organization, International Court of Arbitration, International Labour Organization and other global mechanisms for regulating and monitoring relationships between countries and ensuring the building and fostering of peace, fair trade, justice, and the respect for human rights and human dignity.
- use research skills to investigate conflicts arising out of bilateral and multilateral relationships between countries or between different political groupings.
- identify and analyse the roles and responsibilities of foreign missions in promoting and ensuring that the desired benefits are derived from bilateral and multilateral relationships.
- analyse human rights policies, laws, and practices of different political systems in terms of their consistency with global expectations.

Unit 1: Government Systems

A good understanding of key concepts and ideas of government systems is essential for students to interpret and develop a good understanding of political ideologies and their principles, privileged practices and discourses, and their consequences on the participation of citizens in the political arena and on the satisfaction of citizens' wants and needs.

Grade 11 students will study in-depth the ideology of communism, its underlying principles, its structures and processes for creating, maintaining, or changing government, and the roles and responsibilities of a communist government. Moreover, they will evaluate how citizens' demands are addressed and met through the government processes and systems. Grade 12 students will examine the socialist ideology using the same government system characteristics.

Content Standard 3.1: Students will be able to evaluate and explain the purposes, ideologies, concepts, structures, functions, and processes of different government systems.

Grade 11 Benchmarks	Grade 12 Benchmarks
<p>11.3.1.1. Identify and examine the main principles of communism.</p> <p>11.3.1.2. Explain the purpose (s) of a communist government.</p> <p>11.3.1.3. Illustrate and interpret the structure of a communist government.</p> <p>11.3.1.4. Identify and examine the roles and responsibilities of communist governments.</p> <p>11.3.1.5. Analyse the processes of creating, maintaining, or changing a communist government.</p> <p>11.3.1.6. Explain the processes and the principles of decision and law making in a communist country.</p> <p>11.3.1.7. Evaluate how citizens' demands are addressed and met through the communist government system.</p> <p>11.3.1.8. Differentiate between democracy and communism.</p>	<p>12.3.1.1. Identify and examine the main principles of socialism.</p> <p>12.3.1.2. Explain the purpose (s) of socialist governments.</p> <p>12.3.1.3. Illustrate and interpret the structure of socialist governments.</p> <p>12.3.1.4. Identify and examine the roles and responsibilities of socialist governments.</p> <p>12.3.1.5. Analyse the processes of creating, maintaining, or changing socialist government.</p> <p>12.3.1.6. Explain the processes and the principles of decision and law making in a socialist country.</p> <p>12.3.1.7. Evaluate how citizens' demands are addressed and met through the socialist government system.</p> <p>12.3.1.8. Differentiate between democracy, communism, socialism, and dictatorship.</p> <p>12.3.1.9. Examine the principles, structures, functions, and decision and law making functions of other systems of government (for example fascist, religious, tribal, military, guided democracy, and dictatorship) and their impact on the citizens in terms of addressing and meeting their demands, participation in social, economic, political, cultural, and religious activities, and involvement in the government processes, including decision-making.</p>

Unit 2: Political Ideologies and Systems

In order for students to clearly understand the essence of studying political systems and ideologies, they must be able to articulate the characteristics that underpin the belief systems, behaviours, traditions, and structures of political systems and ideas of various types of government.

Grade 11 and 12 students' study of political ideologies and systems will focus on the signifiers, representations, and identities of communist and socialist ideologies. These include national symbols, political leaders, patriotic activities, national flags and anthems, and monuments. Grade 12 students will also examine the political ideologies and systems of other forms of government, how these are promoted and embedded in the psyche of citizens, and how citizens respond and adhere to their principles.

Content Standard 3.2: Students will be able to identify and interpret the belief systems, representations, behaviours, traditions, structures, practices, and other characteristics that signify political systems and represent their ideologies.

Grade 11 Benchmarks	Grade 12 Benchmarks
<p>11.3.2.1. Define and explain the difference between ideology and hegemony.</p> <p>11.3.2.2. Identify and document the biographies of important communist leaders.</p> <p>11.3.2.3. Interpret the ideologies of important communist leaders in terms of their purposes, implementation, and consequences on the citizens.</p> <p>11.3.2.4. Recognise and interpret national symbols and other representations of communist nations (for example, national flag, national crest, national monuments, independence-day, infrastructure such as buildings, and military).</p> <p>11.3.2.5. Recognise and interpret patriotic activities and other representations (for example the national (pledge of allegiance), salute to the national flag, and the national anthem) of different communist nations in terms of their consistency, promotion, protection, and the sustainability of the communist ideology and hegemony.</p>	<p>12.3.2.1. Identify and document the biographies of important socialist leaders.</p> <p>12.3.2.2. Interpret the ideologies of important socialist leaders in terms of their purposes, implementation, and consequences on the citizens.</p> <p>12.3.2.3. Recognize and interpret national symbols and other representations of socialist nations (for example, national flag, national crest, national monuments, independence-day, infrastructure such as buildings, and military).</p> <p>12.3.2.4. Recognise and interpret patriotic activities and other representations (for example, the National Pledge (Pledge of Allegiance), salute to the national flag, and the national anthem) of different socialist nations in terms of their consistency, promotion, protection, and sustainability of the communist ideology and hegemony.</p> <p>12.3.2.5. Identify and document the biographies of dictators and fascist, religious, tribal, military, and guided democracy leaders.</p> <p>12.3.2.6. Interpret the ideologies of dictators and fascist, religious, tribal, military, and guided democracy leaders in terms of their purposes, implementation, and consequences on the citizens.</p>

Grade 11 Benchmarks	Grade 12 Benchmarks
	<p>12.3.2.7. Recognize and interpret national symbols and other representations of dictatorship and fascist, religious, tribal, military, and guided democratic nations (for example, national flag, national crest, national monuments, independence-day, infrastructure such as buildings, and military).</p> <p>12.4.2.8. Recognise and interpret patriotic activities and other representations (for example, the National Pledge (Pledge of Allegiance), salute to the national flag, and the national anthem) of different dictatorship and fascist, religious, tribal, military, and guided democratic nations in terms of their consistency, promotion, protection, and sustainability of their ideologies and hegemonies.</p>

Unit 3: International Relations

Drawing from political systems and ideologies, bilateral and multilateral relationships are introduced at this level with an emphasis on relationships between governments and people from different countries. It is important for students to understand that people and countries depend on each other for many things, including trade. The development and prosperity of nations and people depend, to a greater extent, on the development and fostering of mutually beneficial social, economic, political, and cultural relationships amongst the nations and peoples of the world.

Grade 11 students will analyse and evaluate the bilateral and multilateral relationships between countries adhering to different ideologies or between countries in different political groupings. They will also examine the global development agenda and how it is pursued through collaborative partnerships and the role of media in promoting international relations. The mechanisms for regulating international relationships will be examined as well. In grade 12, students will appraise the different ways people of different backgrounds interact with each other, evaluate the outcomes of these interactions, examine the factors that hinder and promote people to people relationships and the role of media in promoting these relationships, and analyse factors that contribute to violence between people.

Content Standard 3.3: Students will be able to analyse and discuss government to government and people to people relationships as a basis for satisfying social, economic, political, and cultural demands and achieving development goals and aspirations.

Grade 11 Benchmarks	Grade 12 Benchmarks
<p>11.3.3.1. Identify and evaluate multilateral and bilateral relationships between countries practicing different ideologies in terms of the purposes, implementation, and regulation.</p> <p>11.3.3.2. Identify and analyse these relationships in terms of addressing national development aspirations and meeting the demands of citizens, creating and fostering peace amongst nations, security, recognizing, promoting, and protecting the rights of citizens, social, economic, political, religious, and cultural exchanges, alleviating poverty, and enabling inclusive development.</p>	<p>12.3.3.1. Identify and appraise the different ways people from different cultures, religions, and ethnic and ideological backgrounds relate to each other.</p> <p>12.3.3.2. Examine the purpose, impact, and the outcomes of these relationships.</p> <p>12.3.3.3. Evaluate cases of conflict between people of different nations, political ideologies, cultures, belief systems, socio-economic classes, ethnic groupings, sectors, and religious philosophies in terms of the purpose(s), social, economic, political, religious, and cultural, and historical interests, involvement of other individuals and groups, strategies, impact, and outcomes.</p>

Grade 11 Benchmarks	Grade 12 Benchmarks
<p>11.3.3.3. Justify and analyse global development agenda, conventions, and treaties (for example the Millennium Development Goals, Sustainable Development Goals, Global Warming/ Climate Change, Nuclear Weapons Proliferation Treaty) in terms of their purposes, implementation, regulation, social, economic, political, and cultural implications, and outcomes.</p> <p>11.3.3.4. Use research skills to investigate conflicts arising out of bilateral and multilateral relationships between countries or between different political groupings and ascertain the background, the purposes, the intended outcomes, and how these conflicts were or being resolved.</p> <p>11.3.3.5. Describe and evaluate the roles and responsibilities of the United Nations, World Trade Organization, International Court of Arbitration, International Labour Organization and other global mechanisms for regulating and monitoring relationships between countries and ensuring the building and fostering of peace, fair trade, justice, and the respect for human rights and human dignity.</p> <p>11.3.3.6. Identify and analyse the factors that hinder or promote bilateral and multilateral relationships between countries.</p> <p>11.3.3.7. Identify and analyse the roles and responsibilities of foreign missions (Embassies and High Commissions) in promoting and ensuring that the desired benefits are derived from bilateral and multilateral relationships.</p> <p>11.3.3.8. Evaluate the role of media in promoting and protecting bilateral and multilateral relationships between countries.</p>	<p>12.3.3.4. Identify and analyse the factors that hinder and promote mutually beneficial and harmonious relationships between people, that create and escalate violence, that oppress and deny the rights of others, and that lead to alienation and colonization of places and people.</p> <p>12.3.3.5. Evaluate the role of media in promoting peace and mutually beneficial relationships amongst individuals, groups, and sectors from different ideological, religious, cultural, and ethnic backgrounds.</p>

Unit 4: Civics and Citizenship

In this unit, students will examine civics and citizenship, and other dimensions of political systems, including respect for and protection of human rights. Citizens play critical roles in the creation and sustainability of government systems, the promotion and fostering of the principles of government, and performance of important responsibilities essential for developing and sustaining cohesive societies and systems of government.

In grade 11, students will examine in-depth the involvement of citizens in creating, changing, and maintaining governments in a communist, socialist, and other systems of government. They will examine the civic roles and responsibilities of citizens in these systems of government, how citizens are empowered to contribute to nation building, influences on their thinking, perceptions, and behaviour, participation in decision-making, and the role of mass media in promoting their roles and responsibilities. In grade 12, students will analyse human rights laws, policies, conventions, and practices. They will investigate and report on cases of human rights promotion and abuse in different political contexts, and how cases of human rights violation are addressed.

Content Standard 3.4: Students will be able to evaluate and elaborate on the roles, responsibilities, and the rights of citizens in different government systems.

Grade 11 Benchmarks	Grade 12 Benchmarks
<p>11.3.4.1. Examine the involvement of citizens in creating, changing, and maintaining the government in communist, socialist, and other systems of government.</p> <p>11.3.4.2. Identify and describe the civic roles and responsibilities of citizens in these government systems.</p> <p>11.3.4.3. Identify and evaluate the main influences, including political propaganda, on the types of roles that individuals and groups play in promoting the ideals of each ideology, government, or political leader and manifesting these ideals in their thinking, behaviour, and activities.</p> <p>11.3.4.4. Analyse the roles and responsibilities citizens play in decision and law-making, and in ensuring the practice of good governance by their leaders of communist, socialist, and other government regimes and systems.</p>	<p>12.3.4.1. Analyse human rights policies, laws, and practices of different political systems in terms of their consistency with global expectations.</p> <p>12.3.4.2. Investigate and report on how human rights are promoted and protected in different government systems.</p> <p>12.3.4.3. Investigate and report on cases of human rights abuse in different political systems.</p> <p>12.3.4.4. Examine how the rights of women and girls, people with disabilities, and other marginalized and vulnerable groups are promoted and protected in different political systems.</p> <p>12.3.4.5. Interpret human rights conventions and ascertain if these are fully implemented by all participating countries.</p>

Grade 11 Benchmarks	Grade 12 Benchmarks
<p>11.3.4.5. Explain the role of media in promoting and critiquing the roles and responsibilities of citizens.</p> <p>11.3.4.6. Identify and analyse factors that emancipate and empower citizens of different political systems to change the systems to better serve their interests and meet their demands.</p> <p>11.3.4.7. Differentiate and contrast the roles and responsibilities of citizens from different political systems.</p>	<p>12.3.4.6. Compare and contrast the strategies used by different political systems to enforce the rights of all citizens and the consequences.</p> <p>12.3.4.7. Use research skills to investigate and report on cases where the United Nations, the media, governments, citizens, and other individuals and groups raised awareness and intervened when human rights were suppressed or violated.</p> <p>12.3.4.8. Identify and examine different ways citizens are emancipated and empowered to fight for and to ensure that their social, economic, political, cultural, and religious rights are accommodated, respected, and safeguarded.</p> <p>12.3.4.9. Identify and analyse the effectiveness of different mechanisms for dealing with human rights violations at the local, national, and global levels.</p>

Strand 4: Economics

Rationale

Every society faces a conflict between unlimited wants and limited resources. Because of this situation, human beings have tried to develop methods to produce and distribute resources in order to meet their needs and wants. Individuals, families, businesses, and governments must make complex economic choices as they decide what goods and services to provide and how to allocate limited resources for distribution and consumption. In a global economy marked by rapid technological change, students must learn how to be better producers, consumers, and responsible economic citizens.

The means of production, regulation of distribution of goods and services, mechanisms for the exchange of goods and services, and the influence of ideologies on economic systems are the main focuses of learning at this level. Emphasis is on preparing students for careers, higher education, and citizenship before they leave grade 12.

Evidence Outcomes

By the end of grades 11 and 12, all students can:

- justify the importance of human resources in the production and distribution of resources.
- research different ways human resources were used in traditional societies, in the colonial context, during the era of slavery, and historical places such as Egypt to extract, produce, and distribute resources to satisfy the wants and needs of governments and people.
- investigate and analyse different human resource theories and evaluate their relevance and applicability to resource production and distribution.
- identify and distinguish natural and capital resources and justify their importance in the production and distribution of resources.
- assess how natural and capital resources have been used to increase production, and improve the distribution of resources.
- compare the different types of economies (traditional, command market, and mixed).
- analyse how traditional, command, and mix economies were/are affected by specific social and political systems and important historical events.
- explore the role of price in the market system as signals and providing the incentives to buyers and sellers.
- investigate the economic and geographical factors that prompt international trade (availability of productive resources; differences in relative prices; transaction costs; production of a good or service at a lower opportunity cost; and comparative advantage due to

- resource prices, and events that occur in other countries.
- critique policies/ideologies of conservatism, protectionism, liberalism, and free market.
 - examine the characteristics of countries, political systems, and leaders that advocate and practice these ideologies in their economic systems and in their trade relationships with other countries.
 - assess the circumstances and the reasons for the practice and adherence to these ideologies by different countries and political regimes.
 - use research skills to investigate conservationist, protectionist, liberalist, and free market policies and practices and ascertain their consequences on national, regional, and world trade, and economic systems.
 - examine the roles and responsibilities of World Trade Organization, International Labour Organization, and the difference financial institutions such as the World Bank and the International Monetary Fund.
 - explain the role of the International Labour Organisation in regulating the use of human resources to provide labour for industries, business organisations, companies, and governments, and ensuring the rights and decent working conditions for all workers.
 - evaluate the relationships between donor and recipient countries, and the circumstances in which assistance is provided by the donor country.
 - examine the influence of the communist ideology on the production and distribution of resources.
 - discuss the influence of the socialist ideology on the production and distribution of resources.

Unit 1: Factors of Production and Consumption

This unit allows students to learn about the production and consumption of goods and services. There are many factors that influence the production and consumption of goods and services. These include scarcity, supply and demand, consumer behaviours, availability of markets, and regulation of products and services. It is important that students not only learn about the factors of production and consumption, they must also acquire proficiencies required for the production of goods and services that meet the expectations of buyers and consumers. Moreover, they need this knowledge to enable them to understand and monitor the market forces and make informed economic decisions, predictions, and judgements about the demand for goods and services.

An increase in economic activities in an economy is directly influenced by the quality and quantity of inputs that people make. Grade 11 students will learn that production and consumption are made possible through empowerment and capitalisation of human resources. They will assess the performance of people in production and distribution, and compare how human resources are capitalised to develop and sustain traditional and modern economies. Apart from human resources, development and expansion of economies require the input of both natural and capital resources. Human resources and capital and natural resources complement each other in the process of production. Grade 12 students will evaluate the use of natural and capital resources in the production of goods and services, and propose measures to sustain both the natural and capital resources.

Content Standard 4.1: Students will be able to identify and analyse the factors that influence the production and consumption of goods and services.	
Grade 11 Benchmarks	Grade 12 Benchmarks
<p>11.4.1.1. Justify the importance of human resources in the production and distribution of resources.</p> <p>11.4.1.2. Examine how human resources have been used and their performance improved over time to exploit raw materials, increase production, and improve the distribution of resources.</p> <p>11.4.1.3. Identify and evaluate the different ways human resources were used in traditional societies, in the colonial context, during the era of slavery, and historical places such as Egypt to extract, produce, and distribute resources to satisfy the wants and needs of governments and people.</p>	<p>12.4.1.1. Identify and distinguish natural and capital resources and justify their importance in the production and distribution of resources.</p> <p>12.4.1.2. Explain how natural and capital resources have been used to increase production, and improve the distribution of resources.</p> <p>12.4.1.3. Identify and analyse the different ways natural and capital resources were used in traditional societies, in the colonial context, during the era of slavery, and different places to extract, produce, and distribute resources to satisfy the wants and needs of governments and people.</p> <p>12.4.1.4. Investigate and analyse different natural and capital resource theories and evaluate their relevance and applicability to resource production and distribution.</p>

Grade 11 Benchmarks	Grade 12 Benchmarks
<p>11.4.1.4. Investigate and analyse different human resource theories and evaluate their relevance and applicability to resource production and distribution.</p> <p>11.4.1.5. Critically reflect the role of education and training in producing a cadre of workers required by the industry and capable to transforming working philosophies and practices, operation and management of industries and businesses, and improve the quality of outcomes.</p> <p>11.4.1.6. Evaluate the important role that human resources play in development and transformation of communities and nations.</p>	<p>12.4.1.5. Identify and examine different ways in which natural and capital resources can be improved to boost the production and distribution of resources.</p> <p>12.4.1.6. Examine the important role that natural and capital resources play in the development and the transformation of communities and nations.</p>

Unit 2: Methods of Production and Distribution

This unit focuses on the processes and methods of production and distribution of goods and services in an economy. Economic systems have their own ideologies and practices for managing and controlling the production and distribution processes. Grade 11 students will compare the production and distribution processes of different economic systems. They will evaluate how economic systems control the prices of goods and services.

When countries specialize in the production of goods and services, they increase their levels of efficiency and produce a surplus to trade. Grade 12 students will analyse how specialization can minimize the cost of producing certain goods. They will be able to recommend strategies and educate small to medium scale producers in PNG about specialization to ensure efficiency and increase productivity.

Content Standard 4.2: Students will be able to analyse and discuss the methods of production and distribution of goods and services.

Grade 11 Benchmarks	Grade 12 Benchmarks
<p>11.4.2.1. Compare the different types of economies (traditional, command market, and mixed).</p> <p>11.4.2.2. Analyse how traditional, command, and mix economies were/are affected by specific social and political systems and important historical events.</p> <p>11.4.2.3. Explore the role of price in the market system as signals and providing the incentives to buyers and sellers.</p> <p>11.4.2.4. Identify and examine different ways of controlling the prices of goods and services.</p> <p>11.4.2.5. Define and explain the concept of 'inflation'.</p> <p>11.4.2.6. Explain how inflation affects the ability of people and nations to adequately meet their needs and wants.</p> <p>11.4.2.7. Analyse the effects of inflation on the cost of production, distribution, and consumption of goods and services.</p>	<p>12.4.2.1. Explore the relationship between specialization, cost of production and the subsequent impact on production and consumption in trade.</p> <p>12.4.2.2. Investigate the economic and geographical factors that prompt international trade (availability of productive resources; differences in relative prices; transaction costs; production of a good or service at a lower opportunity cost; and comparative advantage due to resource prices, and events that occur in other countries.</p> <p>12.4.2.3. Justify why markets are created with respect to supply and demand, and price.</p>

Unit 3: Regulation of Production, Distribution, and Consumption

This unit focuses on the regulation of production, distribution, and consumption of goods and services. Different regulatory mechanisms are formulated and implemented at different levels of an economic system to control and manage economic activities, money, sales and marketing, supply and demand, producer and consumer behaviours, and production, distribution, and consumption of products to ensure that there is prudence, compliance, fairness, accountability, transparency, equity, and mutual respect, cohesion, consistency, and sustainability in the economic systems.

International trade organizations play major roles in the development and implementation of economic policies. Grade 11 students will examine how money is managed, regulated, and controlled in different economies. Institutions are created by governments to control the flow of money. Similarly, governments of different countries form organizations and institutions to control the flow of money globally. Grade 12 students will examine how these organizations and institutions function to maintain stability in the world. Having learnt about that, will enable them to propose ways of assisting local businesses and producers to operate in an economic environment where prices of goods and services are determined by supply and demand as well as regulatory mechanisms.

Content Standard 4.3: Students will be able to analyse and elaborate on how market forces and other mechanisms are used to regulate the production, representation, distribution, and consumption of goods and services.

Grade 11 Benchmarks	Grade 12 Benchmarks
<p>11.4.3.1. Define and differentiate between policies/ ideologies of ‘conservatism’, ‘protectionism’, ‘liberalism’, and ‘free market’.</p> <p>11.4.3.2. Identify countries, political systems, and leaders that advocate and practice these ideologies in their economic systems and in their trade relationships with other countries.</p> <p>11.4.3.3. Provide arguments for and against this practice and adherence to these ideologies by different countries and political regimes.</p> <p>11.4.3.4. Use research skills to investigate how conservatism, protectionism, liberalism, and free market affect the production, distribution, and consumption of goods and services.</p> <p>11.4.3.5. Use research skills to investigate conservationist, protectionist, liberalist, and free market policies and practices and ascertain their consequences on national, regional, and world trade, and economic systems.</p>	<p>12.4.3.1. Investigate the roles and responsibilities of World Trade Organization, International Labour Organization, and the difference financial institutions such as the World Bank and the International Monetary Fund.</p> <p>12.4.3.2. Identify and analyse the regulatory roles and responsibilities of each of the economic institutions with regards to the production and distribution of resources, selling and buying of goods and services, management of prices of goods and services, and establishment and fostering economic relationships.</p> <p>12.4.3.3. Evaluate the role of the International Labour Organisation in regulating the use of human resources to provide labour for industries, business organisations, companies, and governments, and ensuring the rights and decent working conditions for all workers.</p> <p>12.4.3.4. Analyse the role of each institution and organization in developing and fostering mutually beneficial economic relationships amongst different countries.</p>

Unit 4: Satisfying Needs and Wants

Resources are scarce and inadequate to meet people's wants and needs. The demand for goods and services is growing at an exponential rate. Meeting this demand continues to be a challenge for all countries globally. Different mechanisms have been developed and will continue to be developed to mass produce existing and new products to meet the increasing demands of people. Mechanisms such as mass production of products, bilateral and multilateral trade, barter systems, e-business and commerce, and research and development of new products will ensure availability and effective circulation, increased coverage, and equitable access to products.

Papua New Guinea is heavily dependent on finished products from countries all over the world. Though, it has plenty of natural resources, there is lack of knowledge and skilled people to convert the natural resources to finished products. International trade will be taught in grades 11 and 12. Grade 11 students will evaluate the processes and principles of international trade, and analyse its impact on economies. Students in grade 12 will identify Papua New Guinea's trading partners and donor countries and agencies. They will evaluate the policies and regulations that guide international grants and aids, and analyse their impact on the economy. Students will propose strategies for improving international trade as well as the spending of grants and aids from other countries and donor agencies.

Content Standard 4.4: Students will be able to investigate and appraise the different mechanisms for satisfying wants and needs.

Grade 11 Benchmarks	Grade 12 Benchmarks
<p>11.4.4.1. Explain the characteristics of international trade, including absolute and comparative advantage, barriers to trade, exchange rates, and balance of trade.</p> <p>11.4.4.2. Examine how values and beliefs such as economic freedom, economic efficiency, equity, full employment, price stability, security and growth influence decisions in different economic systems.</p> <p>11.4.4.3. Investigate and document the different ways the exchange of goods and services by individuals, groups and nations create economic interdependence and change.</p> <p>11.4.4.4. Analyse the geographical factors responsible for creating interdependency through trade.</p> <p>11.4.4.5. Investigate the impact of trade on a nation's economy.</p> <p>11.4.4.6. Research the factors that promote or discourage trade between nations.</p> <p>11.4.4.7. Research and report on trade relations between countries that have been restricted or hindered and the factors responsible for this.</p>	<p>12.4.4.1. Define and differentiate between bilateral and multilateral relationships.</p> <p>12.4.4.2. Examine how bilateral and multilateral relationship aid resources production and distribution.</p> <p>12.4.4.3. Analyse the different ways in which bilateral and multilateral relationships enable the trade of goods and services between countries.</p> <p>12.4.4.4. Evaluate the types of assistance (monetary, human resources, capital, aid) given by donor country to the recipient country and how this assistance will benefit the recipient country.</p> <p>12.4.4.5. Identify and probe the purpose and main focus of different aid modalities.</p> <p>12.4.4.6. Investigate the relationships between donor and recipient countries, and the circumstances in which assistance is provided by the donor country.</p>

Unit 5: Economic Ideologies

Economic ideologies influence the economic and political systems of countries. Capitalism, socialism, liberalism, and communism are dominant political as well as economic ideologies. They provide the economic frameworks for the production, distribution, and consumption of goods and services. These economic ideologies are underpinned by essential economic principles which include individualism, competition, free trade, government vs private control of the means of production, distribution, and consumption, patriotism vs globalism, and welfare systems.

Grades 11 and 12 students will learn about the principles and practices of socialist and communist economic systems. They will compare the management and control of economic activities in these political systems and evaluate the impact on national and global economies.

Content Standard 4.5: Students will be able to interrogate and rationalise the influence of economic ideologies on economic systems and trade relationships amongst different nations and people.

Grade 11 Benchmarks	Grade 12 Benchmarks
<p>11.4.5.1. Examine the influence of the communist ideology on the production and distribution of resources.</p>	<p>12.4.5.1. Examine the influence of the socialist ideology on the production and distribution of resources.</p>
<p>11.4.5.2. Analyse the management and control of the means of production in a communist economic system.</p>	<p>12.4.5.2. Analyse the management and control of the means of production in a socialist economic system.</p>
<p>11.4.5.3. Evaluate the strength and weakness of the communist economic system.</p>	<p>12.4.5.3. Evaluate the strength and weakness of the socialist economic system.</p>
<p>11.4.5.4. Explain how financial institutions function in a communist economic system.</p>	<p>12.4.5.4. Explain how financial institutions function in a socialist economic system.</p>
<p>11.4.5.5. Examine the influence of the communist ideology on the exchange of goods and services between governments and between people.</p>	<p>12.4.5.5. Examine the influence of social ideology on the exchange of goods and services between governments and between people.</p>
<p>11.4.5.6. Evaluate producer and consumer behaviour patterns in communist economies.</p>	<p>12.4.5.6. Evaluate producer and consumer behaviour patterns in a socialist economy.</p>
<p>11.4.5.7. Illustrate how private enterprise and business organizations operate in a communist environment.</p>	<p>12.4.5.7. Illustrate how private enterprise and business organizations operate in a socialist environment.</p>

Strand 5: Environment

Rationale

It is important that students are educated to be good stewards of environment. People and environment need each other to thrive and survive. There is an important symbiotic relationship between people and environment. Protection of environment and wise use of its vast resources is key to human survival and the sustainability of environment for future generations. To instil good stewardship in students, learning opportunities should be provided both inside and outside of the classroom for students to study its ecosystems, living and non-living things, natural and physical structures, and processes and cycles. Moreover, by studying environment, students will appreciate the interplay of both the biotic and abiotic components in sustaining the Earth. Importantly, students will value the interdependence between human and natural systems, and exercise respect towards the natural environment while being conscious of depletion and wastage of resources and degradation of the environment.

Grades 11 and 12 students will be provided lots of opportunities to learn in-depth and master the essential environmental concepts and ideas including, natural and man-made systems, impact of natural and man-made disasters on the environment, the critical relationships between living and non-living things and the environment, and environmental health and sustainability. They are expected to demonstrate proficiency on the following knowledge, skills, values and attitudes before leaving the general education system.

Evidence Outcomes

By the end of grades 11 and 12, all students can:

- investigate the influence of abiotic factors – precipitation, temperature, and soil on living and non-living things in different environments and regions of the world.
- examine the influence of abiotic factors – water, air, and energy on different aspects of various types of environments and natural systems and cycles in different regions of the world.
- appraise the influence of abiotic factors - light, dissolved oxygen, phosphorous, nitrogen, and pH on sustenance of life and survival of plants, animals, and human beings, and on the function of various natural systems and cycles in different environments and regions of the world.
- distinguish between perpetually renewable resources, potentially renewable resources and non-renewable resources and the natural processes involved with their formation and/or renewal.
- examine different types of physical environments (deserts, cold, temperate, arid, mountainous, etc.) and show where they are located using a global map.

- identify, illustrate, and interpret the ecosystems, and food chains and webs typical in each of these environments.
- explain and illustrate how plants, animals, and human beings adapt to and survive in these environments, use and manage resources, and relate to and protect the environment.
- compare commercial agricultural practices in the world and their impact on the environment and ecosystems.
- research and report on the process of greenhouse effect, its causes, and ways of mitigating these.
- investigate the effects of greenhouse effect on different types of environments and on the plants, animals, human beings, organisms, ecosystems, and natural cycles.
- examine the issue of global warming (i.e. its definition, greenhouse gases, causes, and effects on optimum range, and sea level rise).
- evaluate the evidence on global warming and draw appropriate conclusions and predictions.
- investigate and ascertain the effects of global warming on Papua New Guinea and other countries and people of the world.
- deconstruct the Paris Declaration on Global Warming and Climate Change to ascertain its purposes, main advocates and adversaries, underlying assumptions, intended outcomes, implementation processes and emissions targets, and the arguments for and against the proposed strategies and actions.
- analyse Papua New Guinea's frameworks for action on climate and actual actions that are being taken at various levels to minimize the effects of climate change on people, places, and the environment.
- examine the impact of colonization of places on the environment, the effects of resources exploitation, and predict changes to the environment and the natural systems, and the consequences.
- research wildlife management laws and their effect on biodiversity.
- investigate and ascertain the impact of plantation economy on various environments.
- investigate the roles and responsibilities of various national agencies and non-government organisations in Papua New Guinea that advocate for and act in various ways to protect and ensure environment and natural resources sustainability.

Unit 1: Resources and Environment

People depend on the environment around them for resources and existence. The study of resources and environments enables students to understand that different resources are found in different environments and have a life span. Moreover, students will be aware of the critical role that environment plays in the sustenance of life. Resources must be used wisely and replenished and sustained for the benefit of all living things. Resources in PNG have been misused at an alarming rate without consideration for future generations.

In grade 11, students will investigate and evaluate the influence of abiotic factors on different parts of the environment in different environments and regions of the world. Using these knowledge, students will study the different biomass, distinguish between renewable and non-renewable resources and investigate the natural processes involved in their formation or renewal, examine different types of physical environments and show their locations on a global map, identify and interpret their ecosystems, and explain how living things adapt and survive in these environments, use and manage resources, and relate and protect these environments.

Content Standard 5.1: Students will be able to examine and make sense of different types of resources and environments.

Grade 11 Benchmarks	Grade 12 Benchmarks
<p>11.5.1.1. Investigate the influence of abiotic factors – precipitation, temperature, and soil on living and non-living things in different environments and regions of the world.</p> <p>11.5.1.2. Examine the influence of abiotic factors – water, air, and energy on different aspects of various types of environments and natural systems and cycles in different regions of the world.</p> <p>11.5.1.3. Assess the influence of abiotic factors - light, dissolved oxygen, phosphorous, nitrogen, and pH on sustenance of life and survival of plants, animals, and human beings, and on the function of various natural systems and cycles in different environments and regions of the world.</p>	<p>12.5.1.1. Compare the different biomass.</p> <p>12.5.1.2. Distinguish between perpetually renewable resources, potentially renewable resources and non-renewable resources and document the natural processes involved with their formation and/or renewal.</p> <p>12.5.1.3. Examine the different types of physical environments (deserts, cold, temperate, arid, mountainous, etc.) and show where they are located using a global map.</p> <p>12.5.1.4. Identify, illustrate, and interpret the ecosystems, and food chains and webs typical in each of these environments.</p> <p>12.5.1.5. Explain and illustrate how plants, animals, and human beings adapt to and survive in these environments, use and manage resources, and relate to and protect the environment.</p>

Unit 2: The Earth and its Systems

The Earth is known as the habitat for humanity and it is the only planet in the solar system where there is life and organisms co-exist with each other. Understanding the processes and systems that operate together to hold the earth in its position is vital for the continuous supply of finite resources.

Grade 11 students will use the hydrological cycle to interpret and explain the physical and natural environments and examine atmospheric temperatures, air and water quality of these environment types. Moreover, they will review and compare agricultural practices used globally and analyse their impact on the environment and its ecosystems. Grade 12 students, on the other hand, will examine greenhouse effect, its casual factors, its effect on people and other living things, environment, and ways of mitigating it. They will examine in-dept the issue of global warming and use evidence to raise awareness of its consequences.

Content Standard 5.2: Students will be able to investigate and explain the physical dynamics of the Earth that result in the flow of energy and cycling of matter within an ecosystem to demonstrate that Earth is one interconnected system.

Grade 11 Benchmarks	Grade 12 Benchmarks
<p>11.5.2.1. Interpret man-made environments and natural environments through the lens of the hydrological cycle.</p> <p>11.5.2.2. Investigate man-made environments and natural environments by examining the atmospheric temperatures, air quality, and water quality.</p> <p>11.5.2.3. Review and compare commercial agricultural practices in the world and analyse their impact on the environment and ecosystems.</p>	<p>12.5.2.1. Illustrate and interpret the process of greenhouse effect.</p> <p>12.5.2.2. Identify and analyse the causes of greenhouse effect and examine ways of mitigating these causes.</p> <p>12.5.2.3. Investigate the effects of greenhouse effect on different types of environments and on the plants, animals, human beings, organisms, ecosystems, and natural cycles.</p> <p>12.5.2.4. Examine the issue of global warming (i.e. its definition, greenhouse gases, causes, and effects on optimum range, and sea level rise).</p> <p>12.5.2.5. Evaluate the evidence on global warming and draw appropriate conclusions and predictions.</p> <p>12.5.2.6. Investigate and ascertain the effects of global warming on Papua New Guinea and other countries and people of the world.</p> <p>12.5.2.7. Deconstruct the Paris Declaration on Global Warming and Climate Change to ascertain its purposes, main advocates and adversaries, underlying assumptions, intended outcomes, implementation processes and emissions targets, and the arguments for and against the proposed strategies and actions.</p> <p>12.5.2.8. Analyse Papua New Guinea’s frameworks for action on climate and actual actions that are being taken at various levels to minimize the effects of climate change on people, places, and the environment.</p>

Unit 3: Biological Dynamics of the Earth

The earth's geo-physical systems are natural processes that are functional in bio-physical systems that operate in a harmonious cycle. These systems are interconnected and interdependent, meaning, one cannot exist without the other.

The study of the biological dynamics of the earth will enable grade 11 students to understand how humans affect energy flow within an ecosystem. They will analyse the impact of human activities on ecosystems, environments, resources, and economic systems, and evaluate the consequences. Grade 12 students will focus on the significance of biological diversity in ecosystems, natural and human causes of extinction, and the importance of wildlife management laws in the regulation of biodiversity.

Content Standard 5.3: Students will be able to investigate and interpret the biological dynamics of earth.

Grade 11 Benchmarks	Grade 12 Benchmarks
<p>11.5.3.1. Research how humans affect energy flow within an ecosystem.</p> <p>11.5.3.2. Analyse the impact of industrial, agricultural, and commercial enterprise on an ecosystem in different environments and economic systems.</p> <p>11.5.3.3. Examine the impact of colonization of places on the environment, the effects of resources exploitation, and predict changes to the environment and the natural systems, and the consequences.</p>	<p>12.5.3.1. Analyse the significance of biological diversity in an ecosystem.</p> <p>12.5.3.2. Investigate how species adapt to limiting factors in an ecosystem.</p> <p>12.5.3.3. Analyse the differences between natural causes and human causes of extinction.</p> <p>12.5.3.4. Research wildlife management laws and their effect on biodiversity.</p>

Unit 4: Environmental Change and Sustainability

Processes of change occur both in the physical and human environment. Some changes are natural processes and cycles of change while others are man-made through the interaction with the natural and physical environment. Some changes are slow while others are rapid. Some are positive and yet others are negative. Careful investigation and analysis of changes that occurred in the past enables students to critique and make sense of the impact of human activities on the environment. They will then make predictions of the impact and consequences of change in the future, and come up with sustainable mitigation strategies and techniques for good governance, stewardship and care for the environment.

Grade 11 students will focus on the important relationship between human consumption of natural resources and environment stewardship responsibilities, past and emerging issues relating to this relationship, and examine how natural resources are consumed and conserved in different economic contexts. In grade 12, students will focus on the reciprocal relationship between the earth's processes and human activities, and investigate the different ways of sustaining the environment and its vast natural resources.

Content Standard 5.4: Students will be able to critique and make sense of the impact of human activities on the environment.

Grade 11 Benchmarks	Grade 12 Benchmarks
<p>11.5.4.1. Assess the relationships between human consumption of natural resources and the stewardship responsibility for reclamations, including disposal of hazardous and non-hazardous waste.</p> <p>11.5.4.2. Evaluate the impact of different points of view on health, population, resource and environmental issues from the government, businesses and ordinary citizens.</p> <p>11.5.4.3. Distinguish between developed and developing countries with respect to economic development and resource consumption and conservation.</p>	<p>12.5.4.1. Examine the reciprocal relationships between earth's processes (natural disasters) and human activities.</p> <p>12.5.4.2. Appraise the impact of plantation economy on various environments.</p> <p>12.5.4.3. Evaluate the role and responsibilities of various national agencies and non-government organisations in Papua New Guinea that advocate for and act in various ways to protect and ensure environment and natural resources sustainability.</p>

Assessment, Monitoring and Reporting

The relationship between content standards, benchmarks and performance standards is that they all define students' expected levels of proficiency or education quality but at different levels of schooling. Content standards describe the national expectations that all Papua New Guinean children are expected to meet while benchmarks describe the grade-level expectation that all students in a particular grade must meet before proceeding to the next grade. Conversely, performance standards describe the levels of proficiency or quality students should attain to indicate their meeting of grade-level expectations and the national content standards. Effective instruction and assessment are aligned to performance standards, lesson objectives, topic objectives, grade-level expectations, and national content standards.

What is Assessment?

The term "assessment" is generally used to refer to all activities that teachers use to assess students' mastery of what is learned, and to measure and monitor students' progress towards meeting grade-level expectations and the national content standards. Assessment is an on-going process of gathering and interpreting information about students' performance and progress towards meeting grade-level expectations as well as the achievement of the national content standards described in the subject syllabuses. Data should also be used to help and guide students who are yet to meet grade-level and national expectations to make the required progress towards meeting these expectations.

What is Standards-Based Assessment?

In standards-based curriculum, assessment is used to assess students' level of competency or proficiency of a specific knowledge, skill, value, or attitude taught using a set of performance standards (indicators or descriptors) and measuring, monitoring, evaluating, and reporting their progress towards meeting grade and national-level expectations. Assessment is viewed not only as a measurement activity that is performed after a course or a curriculum topic has been taught (summative), but more importantly, as a continuous process (formative) that provides students' performance data to teachers and students regarding their progress towards achieving the intended learning standards. Timely and ongoing assessment of student's learning and mastery of what is learned are key to the learning process and the attainment of the desired learning outcomes.

Throughout the year, teachers will be assessing students' performance and progress towards meeting each grade-level benchmark (grade-level expectation) and each content standard (national-level expectation), and using the data to identify areas where a student or a group of students need more attention, and monitor their progress towards meeting the required standards.

Purpose of Assessment

The primary purpose of assessment is to improve students' learning and teachers' teaching. The other purposes of assessment are to:

- improve students' learning, levels of proficiency, and progress towards meeting the expected standards;
- provide data that teachers, schools, and NDoE can use to make informed decisions about how to improve the quality of teaching and learning in the education system;
- inform teachers about the progress of students towards meeting grade-level and national expectations (standards) and enable them to adjust their lesson planning, instruction, and assessment to improve student learning and proficiency levels;
- inform parents and guardians about their children's achievements and status of progress towards meeting national standards; and what needs to be done to close the gaps and enable children to make the progress required to meet these standards, and
- provide information for schools and systems about teaching strategies, resource allocation and curriculum; and other educational institutions, employers, and the community about the achievements of students in general or of particular students.

Whatever its purpose, assessment is seen as an integral part of the teaching and learning program rather than a separate process.

Types of Assessment

The following types of assessment have been adopted to assess and monitor students' achievement of the education standards.

- Assessment For Learning (AFL)
- Assessment Of Learning (AOL)
- Assessment As Learning (AAL)

Assessment For and Assessment Of Learning are also known as *formative and summative assessments*.

Assessment For Learning

Assessment For Learning (AFL), also known as *classroom assessment*, is different. It is an ongoing process that arises out of the interaction between teaching and learning. It is not used to evaluate learning but to help learners learn better. It does so by helping both students and teachers to understand:

- the performance standards, grade-level benchmarks and content standards that students are expected to meet to achieve the desired level of proficiency or level of education quality;
- where each learner is in relation to the national curriculum standards;

- where they need to be, and
- what they need to do to make progress towards meeting the expected standards.

Assessment Of Learning

Assessment Of Learning (AOL), is the use of a task or an activity to measure, record, and report on a student's level of achievement in regards to specific learning expectations such as unit tests and end of term or year exams. It is normally referred to as *Summative Assessment*.

Assessment As Learning

Assessment As Learning (AAL), is the use of an assessment task or an activity by the teacher in his/her everyday teaching. This strategy provides students with opportunities to understand what they have learnt or are having difficulties with. Self and peer assessments allow students to reflect on their own learning and identify areas of strengths and weaknesses. These tasks offer students the chance to set their own personal goals to improve their own learning.

Diagnostic Assessment

Apart from these three main types of assessment, teachers are expected to do the diagnostic test/assessment to identify strengths and weaknesses in students. This can be done before any teaching and learning of a new content and for new entry levels for students.

Diagnostic assessment is a form of pre-assessment that allows a teacher to determine students' individual strengths, weaknesses, knowledge, and skills prior to instruction. It is primarily used to diagnose student difficulties and to guide curriculum and lesson planning.

Assessment Methods

These are some methods that teachers can use to assess students' performances, products, and processes:

- Observing students during the lesson;
- Conferencing with students;
- Students' Portfolios;
- Tests, and
- Assignments (projects/reports/quizzes/presentations/practical work samples)

Recording and Reporting

Recording

Teachers must keep accurate records of students' performance and achievements. They must report these achievements in fair and accurate ways to parents, guardians, teachers and students. Examples of recording methods include:

- anecdotal notes in a journal or diary;
- checklists;
- portfolios of students' work;
- progressive records, and
- work samples with comments written by the teacher.

Reporting

Reporting is communicating clearly to students, parents, guardians, teachers, and others the information gained from assessing students' learning.

Students' reports should be based on assessment information collected from ongoing assessments. Schools will decide on how best the reports will be presented to suit the needs of their communities. Methods will include interviews and written reports. Written reports should include:

- a written record of progress made towards meeting grade-level expectations and the attainment of content standards by each student since the previous report;
- a written record of each student's learning and mastery problems and what needs to be done to make the required progress towards meeting grade-level benchmarks and national content standards, and
- information about students' attitudes, values and general behaviour.

Monitoring and Evaluation

Assessment information should be used to make judgments about students' achievements and monitor their progress towards meeting grade-level expectations and national content standards.

Monitoring

Data from performance assessment should be used to monitor and report on students' performance towards meeting grade-level and national expectations. Performance standards or indicators should be used to report and keep a tab on each students' progress towards meeting the expected level of proficiency or competency. Teachers should develop a clear and measurable set of performance standards or indicators to monitor and report on students' progress and achievements on a regular basis.

Evaluation

Teachers should use assessment data to evaluate the effectiveness of their teaching and the quality of their students' learning, and make improvements to their teaching practices in order to improve student learning outcomes. Evaluation tools such as written records, questionnaires, logs and diaries, submissions or records of meetings and discussion with general staff members, teaching staff, parents, and other community members should be used to evaluate students' and teachers' competency levels, and make informed decisions about how these could be improved.

Glossary

Terms	Definitions
Aim	<p>An aim is a general statement that provide direction or intent to educational action. It is usually written in amorphous terms using words like: learn, know, understand, appreciate, and these are not directly measurable.</p> <p>Aims may serve as organizing principles of educational direction for more than one grade. Indeed, these organizing principles may encompass the continuum of educational direction for entire programs, subject areas or the district.</p>
Attitude	<p>Attitude refers to an individual's mental state, which is based on his/her beliefs or value system, emotions, and the tendency to act in a certain way. One's attitude reflects how one thinks, feels, and behaves in a given situation.</p>
Assessment	<p>Assessment is an on-going process of identifying, gathering, and interpreting information about students' academic achievement and progress towards meeting the content standards.</p>
Assessment As Learning	<p>It is a self or peer assessment that allow students to reflect on their own learning and identify areas of strength and weakness.</p>
Assessment For Learning	<p>It is an ongoing process of assessing students that arises out of the interaction between teaching and learning. It is not used to evaluate learning but to help teachers to improve their classroom practice and students to improve their learning. This is normally referred to as formative assessment.</p>
Assessment Of Learning	<p>Use of a task or activity to measure, record, and report on a student's level of achievement in regards to specific learning expectations such as unit tests and end of term or year exams. It is normally referred to as summative assessment.</p>
Benchmarks	<p>The specific components of the knowledge, process, skill, concept, principle, or idea identified by a content standard that students are expected to learn, master, and demonstrate proficiency.</p>
Career	<p>A career is the job or profession that someone does for a long period of their life. It includes education, training, and work experience. Career is an individual's metaphorical "journey" through learning, work, and other aspects of life.</p>
Citizenship	<p>Citizenship is the status of a person recognized under the custom or law as being a legal member of a sovereign state or belonging to a nation. Citizenship indicates the relationship between an individual and a nation state. Normally, the individual is conferred protection by the state, in return for the fulfilment of certain obligations owed by the individual to the state.</p>
Content standards	<p>Standards clearly define what all students are expected to know (content) and be able to do (process). They describe the knowledge, skills, values, and attitudes that students should attain, often called the "what" of "what students should know and be able to do."</p>

Terms	Definitions
Curriculum	A course of study that enables learners to acquire specific knowledge and skills. Curriculum is a framework that sets expectations for student learning.
Curriculum principles	Curriculum principles are the values a school believes will give both their students and community the best chance of succeeding, and what they know to be right, given its context, that are relevant, meaningful, and support students to acquire the knowledge, skills, and competencies necessary to prepare them for their futures.
Diagnostic assessment	An assessment given to identify a child's strengths and learning needs for improvement.
Evaluation	Assessment of teaching effectiveness and students' learning and mastery of subject content using evidence in order to improve teaching practices and students learning outcomes.
Evidence outcomes	Indicate students' progress towards meeting an expectation at the mastery level or attainment of the expected level of proficiency. They measure students' mastery of, and proficiency on, grade or cluster-level subject content.
Formative assessment	Formative assessment is an ongoing process of assessing and evaluating students' learning of subject content. The main purpose of formative assessment is to improve classroom practice and students' learning outcomes.
Goals	Goals are statements of educational intention which are more specific than aims. Goals encompass an entire program, subject area, or multiple grade-levels.
Higher education	Higher education is tertiary education leading to award of an academic degree. It is an optional final stage of formal learning that occurs after completion of secondary education.
Knowledge	Knowledge refers to facts, concepts, principles, processes, tenets, etc. that make up a subject.
Monitoring	General supervision over the teaching and learning of the standards.
Self-assessment	Refers to the assessment of one's own strengths and weaknesses in Order to make improvements and make the required progress towards the attainment of intended outcomes.
Skills	Skill refers to the ability of using information and applying it in a context.
Standard	The expected level of quality or achievement which comprises of the knowledge, skills, values, and attitudes that are the basis for quality education.
Standards-Based Curriculum	Standards-based curriculum is underpinned by learning standards. It outlines what matters, provide clear expectations of what students should progressively learn and achieve in school, and guide instruction, assessment and evaluation, and reporting.
STEAM education	The teaching and learning in the fields of science, technology, engineering, arts, and mathematics in both formal and informal classroom settings.

Terms	Definitions
STEAM literacy	Ability to identify problems and questions in life situations, explain the natural and design world, and draw evidence-based conclusions about steam issues.
Summative assessment	Summative assessment is carried out at the end of a period of study. It is also referred to as assessment of learning.
Values	Values are individual beliefs that motivate people to act one way or another. They serve as a guide for human behaviour.
21st century skills	Refers to a broad set of knowledge, skills, work habits, and character traits that are believed by educators, school reformers, college professors, employers, and others to be critically important to success in today's world, particularly in collegiate programs and contemporary careers and workplaces.

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