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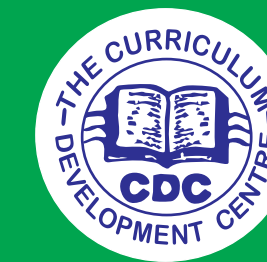
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GEOGRAPHY SYLLABUS

**SECONDARY EDUCATION ORDINARY LEVEL
FORM 1 – 4**



DEVELOPED BY THE CURRICULUM DEVELOPMENT CENTRE
LUSAKA
2024



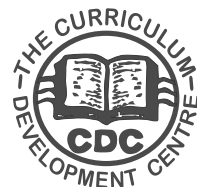
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MINISTRY OF EDUCATION

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FORM 1 – 4



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VISION

Quality, lifelong education for all which is accessible, inclusive and relevant to individual, national and global needs.

PREFACE

Geography Syllabus for Ordinary Level Secondary School has been developed to provide quality education that is aligned with the **Competency-Based Curriculum** and 21st century skills in Form 1-4. The syllabus is designed to ignite curiosity, relate to everyday experiences and foster appreciation for the diverse landscapes, cultures and ecosystems that shape the Earth. Through the syllabus learners will explore the dynamics of the Earth's features, including landforms, climate and natural resources as well as the impact of human activities on the environment.

This syllabus places emphasis on spatial awareness, analytical skills, sustainable practices and the use of geographical tools and technologies to prepare learners to engage meaningfully with global challenges such as climate change, urbanisation and resource management.

The topics provided in this syllabus are aimed at facilitating the holistic development of learners. The suggested activities are designed to offer learners hands-on experiences through manipulation of real objects and interaction with nature. Thus, the children will develop knowledge, desirable lifelong skills, values, and positive attitudes needed for their personal and national development.

Cross-cutting themes and emerging issues such as National Values and Principles, Life Skills and Health Education, and Entrepreneurship Education have been incorporated into the syllabus to ensure that children cultivate a mindset, skills, values, and positive attitudes that prepare them to live responsible lives and be protected from life-threatening vices.

It is hoped that the syllabus will make learning at secondary school level more meaningful and enjoyable as it is highly activity-oriented and will allow the learners to use the knowledge, skills, and values acquired from this subject to help them in life and also assist them in facing the world with confidence.



Joel Kamoko, (Mr.)
2Permanent Secretary- Education Services
MINISTRY OF EDUCATION

ACKNOWLEDGMENT

The **Geography Syllabus** is a result of broad-based consultation involving several stakeholders within and outside the education system. Many individuals, institutions, and organisations were consulted to give views on the existing syllabus and make suggestions for the new syllabus.

The Ministry of Education wishes to express heartfelt gratitude to all those who participated for their valuable contributions, which resulted in the development of this syllabus.

Many thanks go to individuals, institutions, and organisations that provided the technical input for the successful development of this syllabus. These include teachers, lecturers from Colleges of Education and the University of Zambia. I am also grateful to the Directorate of Secondary Education in the Ministry of Education.

Last but not the least, I recognise the commitment and hard work of all the members of staff at the Curriculum Development Centre in ensuring that this syllabus comes to reality.



Charles Ndakala, (Dr.)
Director – Directorate of Curriculum Development
MINISTRY OF EDUCATION

INTRODUCTION

This syllabus is designed to guide the teaching and learning of Geography for Ordinary Secondary Education Form 1- 4. The syllabus interprets the competences indicated in the 2023 Zambia Education Curriculum Framework. The study of geography provides a holistic understanding of the Earth's physical and human systems and their interconnectedness. It also incorporates the techniques of map interpretation and the basic techniques in research.

The purpose of learning Geography is to enable learners develop knowledge, skills and values necessary to understand the Earth, its systems and the relationship between human settlements, natural resources, economic activities and environmental health and sustainability.

It is envisioned that learning Geography should enable learners acquire essential competences; and think reflectively, logically, scientifically, creatively and critically so as to promote sustainable development. It is desired that in this syllabus learners should develop a variety of functional and sustainable knowledge, skills, and experiences which will help them develop into citizens with positive attitude, a sense of curiosity, capacity and ability to fit in the local, national, regional and international community.

Structure of the Syllabus

At the beginning of each form level (1, 2, 3 and 4), there are competences and descriptors to be developed by the learners. For easy reference, the syllabus is arranged as follows; the topic, sub-topic, specific competences, learning activities, and expected standard.

Suggested Teaching Methodology

The approach to teaching and learning is learner-centred. Therefore, in order to develop learners with understanding, skills, and values that can contribute to the development of society, the starting point for teaching and learning is to recognise that learners come to school with a wealth of knowledge and experience gained from the family, community, and through interaction with the environment. Thus, learning in school must build on the learner's prior knowledge and experience.

This is best achieved when learners are actively involved in the learning process through *hands-on activities*. However, each learner has individual needs, pace of learning, experiences in life, and abilities. To accommodate this, the teacher must determine the needs of the learners and shape their learning experiences accordingly. Therefore, teaching methods must be varied but flexible within well-structured sequences of lessons and should include, among others:

- Working in Pairs
- Group/Team Work
- Individual Work

- Field trip Method
- Project Method
- Discussion Method
- Demonstration Method
- Inquiry Based Learning
- Collaborative Learning
- Team Teaching

Time Allocation

The standard period allocation for Geography Form 1 - 4 has been prescribed in the Zambia Education Curriculum Framework (ZECF) of 2023. The minimum learner-teacher contact time for the secondary school level (Form 1-4) is **3 hours and 20 minutes** per week, translating into **four (5) periods** for the **learning area**. The duration of a single period at this level is **40 minutes**.

Assessment

This syllabus recommends both formative and summative assessments. The School Based Assessment (SBA) shall be compulsory to all learners at Form 1, 2, 3 and 4. There will also be final examinations that will be set by Examinations Council of Zambia.

FORM 1

KEY COMPETENCES TO BE DEVELOPED

S/N	COMPETENCE	DESCRIPTORS
1	Analytical Thinking	<ul style="list-style-type: none"> Analyse the relationship between population and natural resources
2	Citizenship	<ul style="list-style-type: none"> Use Renewable and non-Renewable resources responsibly Resolve challenges experienced in settlements
3	Collaboration	<ul style="list-style-type: none"> Practise mitigation measures to climate change Promote orderliness in settlements
4	Communication	<ul style="list-style-type: none"> Use maps or GIS tools to analyse population distribution
5	Creativity and Innovation	<ul style="list-style-type: none"> Demonstrate understanding of Geography Apply calculations of time and longitude in different situations Apply knowledge of earth movements in everyday tasks Apply calculations of the midday sun in various aspects of daily life Apply knowledge of weather and climate in daily activities Apply knowledge of migration in aspects of daily life Demonstrate understanding of population composition Demonstrate understanding of the position of the Earth in the solar system Use latitude calculate distance
6	Critical Thinking	<ul style="list-style-type: none"> Use model of the earth to show the Earths shape and size Make settlement choices
7	Digital	<ul style="list-style-type: none"> Use maps or GIS tools to analyse population distribution

S/N	COMPETENCE	DESCRIPTORS
8	Environmental Sustainability	<ul style="list-style-type: none"> • Protect Earth's atmosphere • Practise sustainable management of natural resources
9	Problem Solving	<ul style="list-style-type: none"> • Address the challenges of rapid population growth in Zambia • Use latitudes and longitudes to locate places on the globe • Adapt lifestyles to local climate risks and disasters • Relate urbanisation to daily lives and environment

TOPIC	SUB-TOPIC	SPECIFIC COMPETENCES	LEARNING ACTIVITIES	EXPECTED STANDARD
1.1 Geography	1.1.1. Introduction to Geography	1.1.1.1. Demonstrate understanding of Geography	<ul style="list-style-type: none"> • Discussing Geography (<i>Major concepts in Geography</i>) • Identifying various branches of Geography (<i>Physical and Human</i>) • <i>Analysing the importance of studying Geography (Conservation of the environment, spatial and navigational skill...)</i> 	<ul style="list-style-type: none"> • Understanding of Geography demonstrated clearly
1.2. The Solar System	1.2.1. The Earth in the Solar System	1.2.1.1. Demonstrate understanding of the position of the Earth in the solar system	<ul style="list-style-type: none"> • Identifying various elements found in the solar system (<i>Sun, Planets, Meteors...</i>) • Engaging in observing celestial activities as a hobby or for educational purposes such as (<i>observing visible planets, phases of the moon, stars, eclipses, meteor showers...</i>) 	<ul style="list-style-type: none"> • Understanding of the position of the earth in the solar system demonstrated correctly
	1.2.2. Shape and Size of the Earth	1.2.2.1. Use model of the earth to show the Earth's shape and size	<ul style="list-style-type: none"> • Describing the shape and size of the earth • Analysing evidence of the earth's shape • Relating the Earth's spherical shape and size to natural and human activities (<i>climatic patterns, ocean currents and weather phenomena, and earth's curvature in satellite positioning and communication...</i>) 	<ul style="list-style-type: none"> • Model of the earth to show the Earth's shape and size used correctly

TOPIC	SUB-TOPIC	SPECIFIC COMPETENCES	LEARNING ACTIVITIES	EXPECTED STANDARD
	1.2.3. Movements of the Earth	1.2.3.1. Apply knowledge of earth movements in different situations	<ul style="list-style-type: none"> Examining the movements of the Earth and their effects (<i>rotation: day and night, time difference, deflection of winds... revolution: seasons, varying lengths of day and night, altitude of the midday sun, solar and lunar eclipse...</i>) Using knowledge of earth movements to plan for specific events (<i>calendar system and time predict weather patterns, check the impact of human activities on the planets ecosystems....</i>) 	<ul style="list-style-type: none"> knowledge of earth movements in different situations applied accordingly
	1.2.4. Earth's Graticule	1.2.4.1. Use latitudes and longitudes to locate places on the globe	<ul style="list-style-type: none"> Describing latitude and longitude Illustrating the International Date Line Locating places on the map using latitudes and longitudes Locating places on the globe using Geographic Information System (GIS) Using knowledge of location of places in various ways. (<i>route planning, reading maps and using GPS, time zone differences, daylight saving...</i>) 	<ul style="list-style-type: none"> Latitudes and longitudes to locate places on the globe used correctly
		1.2.4.2. Apply calculations of time and longitude in different situations	<ul style="list-style-type: none"> Calculating local and standard time using longitudes Calculating longitude using time given Using time zones in different 	<ul style="list-style-type: none"> Calculations of time and longitude in different situations applied accordingly

TOPIC	SUB-TOPIC	SPECIFIC COMPETENCES	LEARNING ACTIVITIES	EXPECTED STANDARD
			situations. (<i>plan for international travel, minimize jet lag, scheduling calls, meetings and events...</i>)	
		1.2.4.3. Use latitude to calculate distance	<ul style="list-style-type: none"> • Computing distance using latitudes • Guiding family and community members to use such calculations to arrive at distances, routes, directions and travel times to their destinations 	<ul style="list-style-type: none"> • Latitude used to calculate distance correctly
		1.2.4.4. Apply calculations of the midday sun in real- life	<ul style="list-style-type: none"> • Calculating the position of the midday sun (Angle of Elevation) at a given latitude at different times of the year. • Calculating the latitude of a place using the position of the midday sun (Angle of Elevation) • Using calculations of midday sun in various ways. (<i>estimate time, determine directions based on their hemisphere, manage solar exposure for people and plants, solar panel placement, designing homes and buildings that are energy efficient...</i>) 	<ul style="list-style-type: none"> • Calculations of the midday sun in real-life applied accordingly
	1.2.5. The Earth's Atmosphere	1.2.5.1. Protect Earth's atmosphere	<ul style="list-style-type: none"> • Identifying various layers that make the structure of the atmosphere: (<i>Troposphere, Stratosphere, Mesosphere, Ionosphere, Thermosphere, Exosphere</i>) • Sharing with family and 	<ul style="list-style-type: none"> • Earth's atmosphere protected appropriately

TOPIC	SUB-TOPIC	SPECIFIC COMPETENCES	LEARNING ACTIVITIES	EXPECTED STANDARD
			<p>community members on the role of the atmosphere: (<i>air we breathe, protection from ultra violet rays, keeps the planet's heat, plays a role in water cycle...</i>)</p> <ul style="list-style-type: none"> Engaging in measures that protect the Earth's atmosphere (<i>planting trees and supporting green spaces, using sustainable transportation, reducing energy use, reducing, reusing and recycling</i>) 	
1.3. Weather and Climate	1.3.1. Weather and Climate	1.3.1.1. Apply knowledge of weather and climate in daily activities	<ul style="list-style-type: none"> Distinguishing weather from climate Identifying the various elements of weather and climate (<i>temperature, humidity, rainfall, cloud cover...</i>) Identifying factors influencing weather and climate (<i>latitude, altitude, seasons, continentality, prevailing winds...</i>) Analysing the climate of Zambia (<i>Savanna, winds/Air masses, seasons...</i>) Using knowledge on weather and climate (<i>planning outdoor activities, clothing and preparedness, health and wellbeing travel, agriculture...</i>) 	<ul style="list-style-type: none"> Knowledge of weather and climate applied in daily activities correctly
	1.3.2. Climate Change	1.3.2.1. Analyse climate change	<ul style="list-style-type: none"> Identifying the causes of climate change (<i>Human causes such as the burning of fossil fuels, agriculture, deforestation... Natural causes such as fumes from volcanic eruption...</i>) 	<ul style="list-style-type: none"> Climate change analysed properly

TOPIC	SUB-TOPIC	SPECIFIC COMPETENCES	LEARNING ACTIVITIES	EXPECTED STANDARD
			<ul style="list-style-type: none"> Analysing the impact of climate change on human activity (<i>extreme temperatures, drought, heat waves, loss of habitat...</i>) Sharing information with family and community members on the causes and impact of climate change 	
	1.3.3. Mitigation and Adaptation to Climate Change	1.3.3.1. Practise mitigation measures to climate change	<ul style="list-style-type: none"> Identifying mitigation measures to climate change (<i>reducing on waste generations, using renewable energy, conserving water, planting trees, ...</i>) Engaging in mitigation measures to climate change Sharing information on the climate change with family and community members 	<ul style="list-style-type: none"> Mitigation measures to climate change practised appropriately
		1.3.3.2. Adapt lifestyles to local climate risks and disasters	<ul style="list-style-type: none"> Identifying ways of adapting to climate risks and disasters (<i>growing early maturing and drought resistant crops, water harvesting, limiting consumption, staying informed, having a family emergence plan...</i>) Engaging in adaptation measures to climate change 	<ul style="list-style-type: none"> Lifestyles adapted to climate risks and disasters appropriately
1.4. Natural Resources	1.4.1. Natural Resources	1.4.1.1. Use Renewable and non-Renewable resources responsibly	<ul style="list-style-type: none"> Identifying different natural resources Describing the types of natural resources: (<i>Renewable- water, land, wildlife, solar... and non-renewable- minerals, fossil fuels...</i>) 	<ul style="list-style-type: none"> Renewable and non-renewable resources used responsibly

TOPIC	SUB-TOPIC	SPECIFIC COMPETENCES	LEARNING ACTIVITIES	EXPECTED STANDARD
			<ul style="list-style-type: none"> Utilising renewable and non-renewable resources responsibly (<i>renewable resources: use clean technologies, minimizing overuse, conservation and restoration</i> <i>non-renewable resources: minimizing consumption, recycling and reusing, reducing dependance on non-renewable energy, sustainable resource extraction...</i>) 	
	1.4.2. Population and Natural Resources	1.4.2.1. Analyse the relationship between population and natural resources	<ul style="list-style-type: none"> Discussing population and natural resources Analysing the relationship between population and natural resources (<i>natural resources attract high population whereas unsustainable use leads to depletion...</i>) Engage in practices that ensure (<i>efficient use of resources, conservation of water resources, use of renewable energy, reducing waste. sustainable consumption, advocating for family planning...</i>) 	<ul style="list-style-type: none"> Relationship between population and natural resources analysed correctly
	1.4.3. Sustainable Management of Natural Resources	1.4.3.1. Practise sustainable management of natural resources	<ul style="list-style-type: none"> Identifying sustainable ways of managing natural resources (<i>conservation farming, water conservation, wildlife protection, energy efficiency, waste reduction and recycling, sustainable food choices, sustainable transportation, protecting biodiversity and ecosystems,</i> 	<ul style="list-style-type: none"> Sustainable management of natural resources practised appropriately

TOPIC	SUB-TOPIC	SPECIFIC COMPETENCES	LEARNING ACTIVITIES	EXPECTED STANDARD
			<i>involvement in environmental clubs...</i> • Practising sustainable management of natural resources	
1.5. Population	1.5.1. Population Composition	1.5.1.1. Demonstrate understanding of population composition	• Exploring population concepts population (<i>Population, census, population density birth rate, death rate, migration...</i>) • Drawing population pyramids to show population composition (<i>age structure, sex ratio...</i>) • Interpreting population composition using population pyramids (<i>age distribution and its implications on resources/needs of different age groups in the community...</i>)	• Understanding of population composition demonstrated accordingly
	1.5.2. Population Distribution in Zambia	1.5.2.1. Analyse population distribution	• Locating on the map of Zambia areas of sparse, moderate and dense population • Describing factors influencing population distribution in Zambia (<i>water, electricity, minerals, transport...</i>) • Analysing population distribution using maps or Geographical Information Systems (GIS)	• Population distribution analysed appropriately
	1.5.3. Rapid Population Growth in Zambia	1.5.3.1. Address challenges of rapid population	• Analysing the causes of rapid population growth in Zambia (<i>high birth rate, declining death rate, early marriages,</i>	• Challenges of rapid population growth addressed accordingly

TOPIC	SUB-TOPIC	SPECIFIC COMPETENCES	LEARNING ACTIVITIES	EXPECTED STANDARD
			<p><i>immigration, illiteracy...</i>)</p> <ul style="list-style-type: none"> Analysing the effects of rapid population growth in Zambia (<i>unemployment, high crime rate, pressure on social services, overcrowding...</i>) Describing potential benefits of rapid population growth in Zambia (<i>adequate manpower, maximum utilization of natural resources, security...</i>) Engaging in actions that help address the challenges of rapid population growth. (<i>improving waste management, resource management, raising awareness...</i>) 	
	1.5.4. Migration	1.5.4.1. Apply knowledge of migration in aspects of daily life	<ul style="list-style-type: none"> Discussing concepts of migration (<i>migration, immigration, emigration) internal (rural-urban, seasonal and international migrations...</i>) Analysing the causes of migration (<i>employment, social services and recreational facilities, disputes, natural disasters, food insecurity...</i>) Examining the effects of migration on the destination area and the place of origin (<i>Receiving destination- Positive: cultural diversity, labour force</i> 	<ul style="list-style-type: none"> Knowledge of migration in aspects of daily life applied accordingly

TOPIC	SUB-TOPIC	SPECIFIC COMPETENCES	LEARNING ACTIVITIES	EXPECTED STANDARD
			<p><i>growth increased economic activities...Negative: strain on public resources, pressure on housing, cultural and social tension...</i></p> <p>The area of origin- Positive: <i>reduced unemployment, relief from population pressure...Negative: brain drain, labour shortages, economic stagnation...</i></p> <ul style="list-style-type: none"> • Relating migration to various aspects of life. (<i>workforce, cultural and societal changes, environmental issues in the area of origin and receiving destination...</i>) 	
1.6. Settlements	1.6.1. Settlements	1.6.1.1. Promote orderliness in settlements	<ul style="list-style-type: none"> • Identifying different types of settlement (<i>rural and urban settlements</i>) • Classifying settlements according to their hierarchy (<i>homestead, hamlet, village, town, city...</i>) • Identifying the various patterns of settlements • Drawing the various patterns of settlements (<i>linear/ribbon, nucleated/clustered, dispersed/Isolated</i>) 	<ul style="list-style-type: none"> • Orderliness in settlements promoted appropriately

TOPIC	SUB-TOPIC	SPECIFIC COMPETENCES	LEARNING ACTIVITIES	EXPECTED STANDARD
	1.6.2. Location of Settlements	1.6.2.1. Make settlement choices	<ul style="list-style-type: none"> Identifying factors that influence the location of settlements (<i>relief, soil fertility, transport, water...</i>) Describing functions of different settlements (<i>administrative, commercial, agricultural, mining...</i>) Choosing a place to live that aligns with one's needs and lifestyle (<i>considering factors such as proximity to school or work, availability of resources; water and food, transportation options, safety and amenities...</i>) 	<ul style="list-style-type: none"> Settlement choices made accordingly
	1.6.3. Challenges in Settlements	1.6.3.1. Resolve challenges experienced in settlements	<ul style="list-style-type: none"> Identifying challenges faced in settlements (<i>Rural -limited access to basic services, poor infrastructure, environmental degradation... Urban -overcrowding, inadequate infrastructure, limited access to green spaces, unemployment, environmental degradation</i>) Resolving challenges experienced in settlements (<i>Rural -sustainable agriculture, environmental conservation, clean water and sanitation campaign, health care campaigns... Urban managing waste, urban greening, energy conservation, water conservation, sustainable urban mobility campaigns, disaster preparedness campaigns ...</i>) 	<ul style="list-style-type: none"> Challenges experienced in settlements resolved accordingly

TOPIC	SUB-TOPIC	SPECIFIC COMPETENCES	LEARNING ACTIVITIES	EXPECTED STANDARD
1.7. Urbanisation	1.7.1. Urbanisation	1.7.1.1. Relate urbanisation to daily lives and environment	<ul style="list-style-type: none"> • Discussing urbanisation • Discussing causes of rapid urbanisation (<i>physical, social and economic factors</i>) • Analysing the impacts of urbanisation in different areas. (<i>business owners, farmers and town planners...</i>) • Relating urbanisation to daily lives and the environment. (<i>basic problem solving, leaning different cultures and lifestyles, road safety and traffic congestion solutions, clean-up and tree planting, appreciating local community growth...</i>) 	<ul style="list-style-type: none"> • Urbanisation related to daily lives and environment appropriately

FORM 2

KEY COMPETENCES TO BE DEVELOPED

*9- +S/N	COMPETENCE	DESCRIPTORS
1	Analytical Thinking	<ul style="list-style-type: none"> Analyse terrain Analyse drainage patterns Analyse fieldwork
2	Citizenship	<ul style="list-style-type: none"> Respond to natural hazards and disasters
3	Collaboration	<ul style="list-style-type: none"> Practise distance and area measurement Collect data in the field
4	Communication	<ul style="list-style-type: none"> Use findings to address local challenges
5	Creativity and Innovation	<ul style="list-style-type: none"> Use 4-figure and 6-figure to grid references to locate points or features Use contours and other symbols to determine relief Demonstrate understanding of Zambia’s soils and coverage Use compass bearing and cardinal directions for navigation Use symbols and legend to recognise features Use symbols to interpret vegetation and land use
S/N	COMPETENCE	
6	Critical Thinking	<ul style="list-style-type: none"> Show a relationship between Agriculture and Agro-Ecological Regions Establish relationship between climate and Agro-Ecological Regions Analyse environmental hazards and disasters
7	Digital	<ul style="list-style-type: none"> Process data

S/N	COMPETENCE	DESCRIPTORS
8	Environmental Sustainability	<ul style="list-style-type: none">• Conduct sustainable management practices
9	Problem Solving	<ul style="list-style-type: none">• Respond to natural hazards and disasters

TOPIC	SUB TOPIC	SPECIFIC COMPETENCES	LEARNING ACTIVITIES	EXPECTED STANDARD
2.1 Basic Map Reading Techniques	2.1.1. Maps and Diagrams	2.1.1.1. Demonstrate understanding of maps and diagrams	<ul style="list-style-type: none"> Differentiating maps from diagrams Drawing different maps and diagrams Identifying the characteristics of a map (<i>symbols, key, direction, grid systems, scale, elevation...</i>) 	<ul style="list-style-type: none"> Understanding of maps and diagrams demonstrated correctly
	2.1.2. Map Symbols	2.1.2.1. Use symbols and legend to recognise features	<ul style="list-style-type: none"> Recognising natural (<i>rivers and mountains...</i>) and man-made features (<i>roads, settlements...</i>) Using map colours to identify features on the map. (<i>physical relief, vegetation and land use patterns...</i>) 	<ul style="list-style-type: none"> Symbols and legend used to recognise features correctly
	2.1.3. Map Reading and Interpretation	2.1.3.1. Use 4-figure and 6-figure to grid references to locate points or features	<ul style="list-style-type: none"> Identifying precise locations using 4-figure or 6-figure grid references Plotting known points or features on a map 	<ul style="list-style-type: none"> 4-figure or 6-figure grid reference used to locate points or features correctly
	2.1.4. Relief	2.1.4.1. Use contours and other symbols to determine relief	<ul style="list-style-type: none"> Interpreting contour lines and other symbols to identify features (<i>slopes, hills, valleys...</i>) 	<ul style="list-style-type: none"> Contours and other symbols to determine relief used correctly.
		2.1.4.2. Analyse terrain	<ul style="list-style-type: none"> Calculating gradient Creating cross sections or land profiles Assessing gradient and elevation of land for suitability of land use (<i>agriculture, tourism, construction...</i>) Identifying safe zones or risky areas in case of floods or other hazards 	<ul style="list-style-type: none"> Terrain analysed accordingly

TOPIC	SUB TOPIC	SPECIFIC COMPETENCES	LEARNING ACTIVITIES	EXPECTED STANDARD
	2.1.5. Drainage Features	2.1.5.1. Analyse drainage patterns	<ul style="list-style-type: none"> Identifying river features (<i>Rivers, tributaries and other water bodies ...</i>) Analysing how water flows and how it relates to elevation and topography Using contours to identify areas prone to flooding 	<ul style="list-style-type: none"> Drainage patterns analysed correctly
	2.1.6. Land Use	2.1.6.1. Use symbols to interpret vegetation and land use	<ul style="list-style-type: none"> Using map symbols to identify land use patterns (<i>agriculture, urban, forest areas...</i>) Inferring the type of vegetation from topography and other map data 	<ul style="list-style-type: none"> Symbols used to interpret vegetation and land use correctly
	2.1.7. Direction and Orientation	2.1.7.1. Use compass bearing and cardinal directions for navigation	<ul style="list-style-type: none"> Using the maps compass rose or grid to determine direction Calculating precise bearings for navigation Aligning the map with actual terrain using a compass or landmarks 	<ul style="list-style-type: none"> Compass bearing and cardinal directions for navigation used correctly
	2.1.8. Measurement of Distance and Area	2.1.8.1. Practise distance and area measurement	<ul style="list-style-type: none"> Identifying different scales on a map (<i>Linear, Representative Fraction, Statement</i>) Measuring distance on a map (<i>along a straight line and winding course</i>) Calculating the size of specific areas using grid squares or scales 	<ul style="list-style-type: none"> Distance and area measurement practised correctly

TOPIC	SUB TOPIC	SPECIFIC COMPETENCES	LEARNING ACTIVITIES	EXPECTED STANDARD
2.2. Basic Research Skills	2.2.1. Fieldwork	2.2.1.1. Analyse fieldwork	<ul style="list-style-type: none"> Identifying types of fieldwork (<i>Field studies, field research and field excursion</i>) Discussing the importance of fieldwork (<i>Translate theories learnt in the classroom into reality, observe geographical phenomena in their natural setting, acquire skills of observation, recording, analysis and interpretation of data...</i>) 	<ul style="list-style-type: none"> Fieldwork analysed accordingly
	2.2.2. Planning and Preparing for Field Work	2.2.2.1. Plan for field work	<ul style="list-style-type: none"> Identifying a research problem or topic Formulating research aim, objectives or hypothesis Selecting a suitable location for the study Organising resources such as maps, equipment and logistics 	<ul style="list-style-type: none"> Field work planned for appropriately
	2.2.3. Data Collection/ Fieldwork	2.2.3.1. Collect data in the field	<ul style="list-style-type: none"> Employing sampling methods to collect representative data (<i>random sampling; simple random, stratified...</i>) (<i>non-random; purposive, convenience...</i>) Identifying types of data (<i>primary and secondary</i>) Designing data collection 	<ul style="list-style-type: none"> Data collected in the field accurately

TOPIC	SUB TOPIC	SPECIFIC COMPETENCES	LEARNING ACTIVITIES	EXPECTED STANDARD
			tools/instruments (<i>questionnaires, interview guides...</i>) <ul style="list-style-type: none"> Recording physical and human geographical features systematically Using tools such as clinometer, tape measure or anemometer for accurate data collection 	
	2.2.4. Data processing	2.2.4.1. Process Data	<ul style="list-style-type: none"> Organising data Analysing data Interpreting data Discussing data (<i>Make a conclusion on the objectives/hypothesis, support conclusion with relevant data taken from tables and graphs</i>) 	<ul style="list-style-type: none"> Data processed accordingly
	2.2.5. Presenting Findings	2.2.5.1. Use findings to address local challenges	<ul style="list-style-type: none"> Writing a geography fieldwork report Creating visual presentations (<i>maps infographics...</i>) Communicating results to academics and policy makers 	<ul style="list-style-type: none"> Research findings used to address local challenges accordingly
2.3. Environment	2.3.1. Environment Degradation	2.3.1.1. Demonstrate understanding of environmental degradation	<ul style="list-style-type: none"> Conducting surveys to; (<i>identify degraded areas in the community, human activities and natural processes that lead to environmental degradation and impacts of environmental degradation ...</i>) Presenting findings in class 	<ul style="list-style-type: none"> Understanding of the environment demonstrated accordingly

TOPIC	SUB TOPIC	SPECIFIC COMPETENCES	LEARNING ACTIVITIES	EXPECTED STANDARD
	2.3.2. Environmental Protection	2.3.2.1. Conduct sustainable management practices	<ul style="list-style-type: none"> • Discussing sustainable management practices • Participating in actions that promote care for the environment (<i>waste; sorting, reusing, composting. Soil; planting trees or grass. Water; turning off taps, reusing water for cleaning or watering plants. Biodiversity; build bird feeders for local wildlife...</i>) 	<ul style="list-style-type: none"> • Sustainable management practices conducted correctly
	2.3.3. Environmental Hazards and Disasters	2.3.3.1. Analyse environmental hazards and disasters	<ul style="list-style-type: none"> • Identifying environmental hazards and disasters (<i>floods, drought, lead contamination, water pollution...</i>) • Analysing the impacts of environmental hazards and disasters on the environment (<i>loss of life, destruction of property...</i>) • Reporting environmental hazards and disasters to authorities. (<i>teachers, parents, local leaders...</i>) 	<ul style="list-style-type: none"> • Environmental hazards and disasters analysed correctly
		2.3.3.2. Respond to natural hazards and disasters	<ul style="list-style-type: none"> • Identifying ways of responding to environmental hazards and disasters (<i>Preparedness, immediate response, recovery, mitigation...</i>) • Practising best ways of responding to environmental hazards and disasters 	<ul style="list-style-type: none"> • Natural hazards and disasters responded to accordingly

TOPIC	SUB TOPIC	SPECIFIC COMPETENCES	LEARNING ACTIVITIES	EXPECTED STANDARD
2.4. Agro-Ecological Regions in Zambia	2.4.1. Zambia's Agro-Ecological Regions	2.4.1.1. Analyse Zambia's Agro Ecological Regions	<ul style="list-style-type: none"> Identifying Zambia's soil types and their coverage Identifying Zambia's Agro-Ecological Regions Showing Zambia's Agro-Ecological Regions on a map Using knowledge of soils and ecological zones in various ways. (<i>crop selection, farming techniques, management of soil fertility, water and environmental...</i>) 	<ul style="list-style-type: none"> Zambia's Ecological Regions analysed accordingly
	2.4.2. Climate and Agro-Ecological Regions	2.4.2.1. Establish relationship between climate and Agro Ecological Regions	<ul style="list-style-type: none"> Examining the relationship between climate and Agro-Ecological Regions (AER I: (<i>Rainfall less than 800mm</i>) (AER II: <i>Rainfall between 800mm and 1000mm</i>) (AER III: <i>Rainfall 1000mm and 1500mm</i>) Relating climate and Agro-Ecological Zones in different aspects (<i>farming seasons, crop selection, soil fertility, agricultural resource management, livestock management, agro-forestry and sustainable land use, climate adaptation...</i>) 	<ul style="list-style-type: none"> Relationship between climate and Agro-Ecological Regions established appropriately
	2.4.3. Agriculture and Agro-Ecological Regions	2.4.3.1. Show a relationship between Agriculture and Agro-Ecological Regions	<ul style="list-style-type: none"> Describing the relationship between agriculture and Agro-Ecological Regions AER I: Pastoralism and crop agriculture) AER II: Pastoralism, crop 	<ul style="list-style-type: none"> Relationship between Agriculture and Agro-Ecological Regions shown clearly

TOPIC	SUB TOPIC	SPECIFIC COMPETENCES	LEARNING ACTIVITIES	EXPECTED STANDARD
			agriculture and aquaculture) AER III: Crop agriculture, Aquaculture and Pastoralism) <ul style="list-style-type: none"> • Participating /initiating small scale farming projects that align with their zone’s conditions • Linking aspects such as crop selection, soil management, environmental conservation, water resource management to their zone’s conditions 	

FORM 3

KEY COMPETENCES TO BE DEVELOPED

S/N	COMPETENCE	DESCRIPTORS
1	Analytical Thinking	<ul style="list-style-type: none"> Analyse climatic regions Evaluate the impacts of earthquakes and volcanic activities on environment
2	Citizenship	<ul style="list-style-type: none"> Practise sustainable use of water
3	Collaboration	<ul style="list-style-type: none"> Plan for cyclonic activity
4	Creativity and Innovation	<ul style="list-style-type: none"> Relate rocks to everyday life Link faulting and folding to real life experiences Relate mass movement (mass wasting) to real -life experiences Relate earthquakes and volcanic activity to the natural environment
S/N	COMPETENCE	DESCRIPTORS
5	Critical Thinking	<ul style="list-style-type: none"> Evaluate the impacts of earthquakes and volcanic activities on environment
6	Emotional Intelligence	<ul style="list-style-type: none"> Adopt ways of coping with pandemics (HIV/AIDS and COVID 19)
S/N	COMPETENCE	DESCRIPTORS
7	Environmental Sustainability	<ul style="list-style-type: none"> Apply knowledge of river system in everyday life Demonstrate understanding of the internal structure of the earth
8	Problem Solving	<ul style="list-style-type: none"> Develop ways of adapting to climatic regions

TOPIC	SUB TOPIC	SPECIFIC COMPETENCES	LEARNING ACTIVITIES	EXPECTED STANDARD
3.1 Structure of the Earth	3.1.1. Earth's Internal Structure	3.1.1.1. Demonstrate understanding of the internal structure of the earth	<ul style="list-style-type: none"> Identifying the layers of the internal structure of the earth (<i>the crust/ lithosphere, mantle/mesosphere and core/baryosphere</i>) Describing the layers of the internal structure of the earth Drawing a cross section of the internal structure of the earth 	<ul style="list-style-type: none"> Understanding of the internal structure of the earth demonstrated correctly
	3.1.2. Types of Rocks	3.1.2.1. Relate rocks to everyday life	<ul style="list-style-type: none"> Identifying the types of rocks (<i>igneous, sedimentary and metamorphic</i>) Classifying the types of rocks (<i>structure, mode of occurrence, texture, colour, resistance and permeability</i>) Relating types of rocks to everyday life (<i>aquifers and groundwater, erosion, minerals, sculptures or pottery...</i>) 	<ul style="list-style-type: none"> Rocks to everyday life related accordingly
3.2. Internal Earth Movements and Land forms	3.2.1. Landforms Formed by Faulting and Folding	3.2.1.1. Link faulting and folding to real life experiences	<ul style="list-style-type: none"> Discussing the processes involved in faulting and folding (<i>compression and tension</i>) Describing the land forms associated with faulting and folding (<i>block mountains, fold mountains, rift valleys, escarpments</i>) Drawing diagrams of the land forms associated with faulting and folding 	<ul style="list-style-type: none"> Faulting and folding linked to real life experiences accordingly

TOPIC	SUB TOPIC	SPECIFIC COMPETENCES	LEARNING ACTIVITIES	EXPECTED STANDARD
			<ul style="list-style-type: none"> Linking faulting and folding to real life experiences. (<i>tourism; rift valleys, fold mountains, Water; aquifers and groundwater reservoirs, transport and construction; roads, bridges, buildings in areas affected by faulting and folding...</i>) 	
	3.2.2. Landforms formed by Earthquakes and Volcanic activities	3.2.2.1. Relate earthquakes and volcanic activity to the natural environment	<ul style="list-style-type: none"> Exploring the nature of earthquakes and volcanic activities Describing the landforms formed by earthquake (<i>steep scarps, elongated ridges, linear valleys...</i>) and volcanic activities (<i>intrusive and extrusive landforms</i>) Relating earthquakes and volcanic activity to the natural environment (<i>mild earth tremors, formation of valleys, plateaus and escarpments, mineral resources, geothermal features...</i>) 	<ul style="list-style-type: none"> Earthquakes and volcanic activities related to the natural environment accordingly
		3.2.2.2. Evaluate the impacts of earthquakes and volcanic activities on environment	<ul style="list-style-type: none"> Evaluating the impacts of earthquakes and volcanic activities on environment (<i>destruction of forests, loss of lives, damage to infrastructure...</i>) 	<ul style="list-style-type: none"> Impacts of earthquakes and volcanic activities on the environment evaluated appropriately

TOPIC	SUB TOPIC	SPECIFIC COMPETENCES	LEARNING ACTIVITIES	EXPECTED STANDARD
3.3. Weathering and Mass movement (Mass Wasting)	3.3.1. Weathering	3.3.1.1. Relate weathering to real-life experiences	<ul style="list-style-type: none"> • Discussing weathering • Describing the types of weathering (<i>Chemical, Mechanical/physical and biological weathering</i>) • Relating weathering to real-life and everyday experiences such as (<i>soil formation, building materials, landscapes, climate and weather, conservation...</i>) 	<ul style="list-style-type: none"> • Weathering related to real-life experiences appropriately
	3.3.2. Mass movement (Mass Wasting)	3.3.2.1. Relate mass movement to real -life experiences	<ul style="list-style-type: none"> • Discussing mass movement • Identifying the causes of mass movement (mass wasting) (<i>gravitational force, steepness of the slope, lubrication of the soil</i>) • Describing the types of mass movement (<i>Rockfalls, avalanches, landslides, soil creep, mudflow/soil flow...</i>) • Linking mass movement (mass wasting) to real life practices (<i>such as disaster preparedness and safety. land use, environmental conservation, mitigation of environmental impact, road and transportation management...</i>) 	<ul style="list-style-type: none"> • Mass movement (mass wasting) related to real - life experiences accordingly

TOPIC	SUB TOPIC	SPECIFIC COMPETENCES	LEARNING ACTIVITIES	EXPECTED STANDARD
3.4. River Processes	3.4.1. Hydrological Cycle	3.4.1.1. Practise sustainable use of water.	<ul style="list-style-type: none"> • Drawing the diagram showing the Hydrological cycle • Describing the process of the Hydrological cycle (<i>Evaporation, condensation, precipitation, run off and percolation...</i>) • Practising sustainable water use at home, school and community level (<i>Water conservation, recycling and reusing water, protecting water resources, educating the community...</i>) 	<ul style="list-style-type: none"> • Sustainable use of water practised accordingly
	3.4.2. River System	3.4.2.1. Apply knowledge of river system in everyday life	<ul style="list-style-type: none"> • Identifying the river drainage patterns (<i>dendritic, radial and trellis...</i>) • Examining the river processes (<i>erosion, transportation and deposition</i>) • Describing features associated with each stage of a river Youth (<i>waterfalls, interlocking spurs, rapids...</i>) Middle stage: (<i>meanders, slip of slopes river cliffs...</i>) Old stage (<i>flood plains, levees, oxbow lakes...</i>) • Using knowledge of river system in everyday life (<i>transportation, irrigation, power generation, tourism and recreation, disaster</i>) 	<ul style="list-style-type: none"> • Knowledge of river system in everyday life applied accordingly

TOPIC	SUB TOPIC	SPECIFIC COMPETENCES	LEARNING ACTIVITIES	EXPECTED STANDARD
			<i>preparedness and mitigation...)</i>	
3.5. Weather and Climate	3.5.1. Climatic Regions	3.5.1.1. Develop ways of adapting to climatic regions	<ul style="list-style-type: none"> • Locating climatic regions: (<i>Savannah, Hot Deserts, Tropical Rainforest</i>) on the map • Describing the characteristics of the regions (<i>climate, vegetation, and human activities</i>) • Analysing the relationship between climate and vegetation of each of the regions • Engaging in adaptation practices (<i>farming practices, disaster preparedness, environmental conservation, energy solutions...</i>) 	<ul style="list-style-type: none"> • Ways of adapting to climatic regions developed accordingly
	3.5.2. Tropical and Temperate Cyclonic Activities	3.5.2.1. Plan for cyclonic Activities	<ul style="list-style-type: none"> • Discussing the formation of tropical and temperate cyclonic activities (<i>the differences in pressure system</i>) • Describing the structure of cyclones and anticyclones • Analysing the effects of tropical and temperate cyclones: (<i>destruction of lives, property, the environment and displacement of people...</i>) • Planning for cyclone 	<ul style="list-style-type: none"> • Cyclonic Activities planned for appropriately

TOPIC	SUB TOPIC	SPECIFIC COMPETENCES	LEARNING ACTIVITIES	EXPECTED STANDARD
			preparedness and disaster management (arrangements for shelter, food, water, communication...)	
3.6. Population	3.6.1. World Population	3.6.1.1. Demonstrate understanding of world population distribution/density	<ul style="list-style-type: none"> Describing world population distribution (<i>densely, moderately and sparsely populated areas in the world</i>) Analysing world population structure (pyramids of the <i>Less Economically Developed Countries (LEDCs) and More Economically Developed Countries (MEDCs)</i>) 	<ul style="list-style-type: none"> Understanding of world population distribution/density/structure demonstrated correctly
3.7. Global Pandemics	3.7.1. HIV/AIDS and COVID 19	3.7.1.1. Adopt ways of coping with pandemics	<ul style="list-style-type: none"> Discussing the concept of pandemic Assessing the effects of the global pandemics (HIV/AIDS and COVID-19) on the population and socio-economic development of a country (<i>loss of life, economic slump...</i>) Coping with pandemics (<i>vaccination, abstinence, adherence to medication...</i>) 	<ul style="list-style-type: none"> Ways of coping with pandemics adopted appropriately

FORM 4

KEY COMPETENCES TO BE DEVELOPED

S/N	COMPETENCE	DESCRIPTORS
1	Analytical Thinking	<ul style="list-style-type: none"> Analyse implications Zambia's location Analyse efforts to improve transport and communication in landlocked countries Evaluate renewable and non-renewable resources Analyse land tenure Analyse unsustainable farming Evaluate fish farming in Zimbabwe Evaluate challenges and solutions of tourism Analyse hydro-electric power in Zambia
2	Citizenship	<ul style="list-style-type: none"> Promote cultural features of Zambia
3	Collaboration	<ul style="list-style-type: none"> Use sustainable energy responsibly Demonstrate understanding of new trends in transport and communication Demonstrate knowledge of tourism in Zambia
4	Communication	<ul style="list-style-type: none"> Exhibit knowledge transport and communication in Zambia
5	Creativity and Innovation	<ul style="list-style-type: none"> Analyse the relationship between farming and climate change Relate relief and drainage to real-life situations in Zambia Provide solutions to invasive plants Address deforestation Relate sugar cane growing in South Africa to Zambia Relate pastoral farming in Botswana to Zambia Adopt fishing practices from the fisheries of Malawi

		<ul style="list-style-type: none"> • Draw lessons of fish farming from Zimbabwe • Adopt tourism practices from Kenya and South Africa • Adopt measures to reduce overdependence on HEP • Draw lessons of mining from Angola and South Africa • Draw lessons of rapid industrial expansion in Japan and China • Develop solutions to Zambia’s transport and communication challenges
S/N	COMPETENCE	DESCRIPTORS
6	Critical Thinking	<ul style="list-style-type: none"> • Analyse the relationship between farming and climate change • Show relationship between energy and climate change • Examine the relationship between energy and climate change • Evaluate HEP in the Sub-Region • Relate mineral processing to economic growth in Zambia • Examine major processing and manufacturing industries in Zambia
7	Entrepreneurship	<ul style="list-style-type: none"> • Practise fisheries related entrepreneurship • Use opportunities within Zambia’s mineral value chain.
S/N	COMPETENCE	DESCRIPTORS
8	Environmental Sustainability	<ul style="list-style-type: none"> • Demonstrate understanding of relief and drainage features of Zambia • Promote sustainable use of vegetation in Zambia • Demonstrate knowledge of vegetation in Zambia • Explore exploitation of forests • Practise sustainable farming • Practise sustainable tourism • Adopt sustainable mobility practices

9	Financial Education	<ul style="list-style-type: none"> • Provide solutions to challenges Zambia faces in mineral markets
10	Problem Solving	<ul style="list-style-type: none"> • Provide solutions to fishing challenges • Practise irrigation farming • Practise fish farming • Provide solutions to the challenges of tourism • Provide solution to the challenges of transporting fuel and power • Address challenges associated with production of different types of energy • Provide solutions to challenges Zambia faces in mineral markets • Provide solution to challenges and impacts of processing and manufacturing industries

TOPIC	SUB TOPIC	SPECIFIC COMPETENCES	LEARNING ACTIVITIES	EXPECTED STANDARD
4.1. Zambia	4.1.1. Location of Zambia	4.1.1.2. Analyse implications of Zambia's location	<ul style="list-style-type: none"> Using lines of latitude and longitude to indicate the absolute location of Zambia (<i>latitude 8° south-18° south, longitude 22° east – 34° east</i>) Showing the relative location of Zambia (<i>the neighboring countries and the region</i>) Analysing the implications of Zambia's location (<i>Absolute location; time zones for communication and business, predict weather patterns, disaster preparedness... Relative location; regional interdependence, trade and transportation, tourism...</i>) 	<ul style="list-style-type: none"> Implications of Zambia's location analysed accordingly
	4.1.2. Relief and Drainage	4.1.2.1. Relate relief and drainage features to real -life situations	<ul style="list-style-type: none"> Identifying relief levels of Zambia (<i>High veld, Middle veld and Low veld and their features respectively</i>) Describing the drainage system of Zambia (<i>the four main rivers, lakes, dambos, swamps...</i>) Relating relief and drainage to real life situations. (<i>agriculture, disaster preparedness, tourism and recreation, water supply...</i>) 	<ul style="list-style-type: none"> Relief and drainage features related to real -life situations accordingly
	4.1.3. Cultural features	4.1.3.1. Promote cultural features of Zambia	<ul style="list-style-type: none"> Identifying the cultural features of Zambia (<i>roads, railways, bridges, pipeline...</i>) Engaging in actions that help improve the cultural features (clean up campaigns, avoiding vandalism) 	<ul style="list-style-type: none"> Cultural features of Zambia promoted accordingly

TOPIC	SUB TOPIC	SPECIFIC COMPETENCES	LEARNING ACTIVITIES	EXPECTED STANDARD
4.2. Forestry in Zambia	4.2.1. Vegetation of Zambia	4.2.1.1. Promote sustainable use of vegetation	<ul style="list-style-type: none"> Describing the types of vegetation in Zambia : (<i>tropical rain forests, miombo woodlands, mopane woodlands, munga woodlands, riverine forest, montane, swamp forests...</i>) Identifying exotic plants and the areas of their location: forest plantations (<i>Chichele, Chati, Itimpi on the Copperbelt, Shiwangádu... Species: eucalyptus, pine, cedar, gmelina, Cyprus....</i>) Identifying the forest products and their uses (<i>timber, medicine, charcoal, fruits, vegetables, fibre...</i>) Engaging in actions that help to sustain vegetation (<i>tree planting, preserving vegetation in protected areas and buffer zones, selective cutting of trees for timber and wood fuel...</i>) 	<ul style="list-style-type: none"> Sustainable use of vegetation promoted accordingly
	4.2.2. Invasive Plant Species in Zambia	4.2.2.1. Provide solutions to invasive plant species	<ul style="list-style-type: none"> Identifying invasive plant species (<i>Lantana camara, Kafue weed, Mimosa pigra, Amaranthus...</i>) Describing the effects of invasive plant species (<i>block waterways, displacement of local tree species, produce toxins, reduce oxygen for aquatic life...</i>) 	<ul style="list-style-type: none"> Solutions to invasive plant species provided appropriately

TOPIC	SUB TOPIC	SPECIFIC COMPETENCES	LEARNING ACTIVITIES	EXPECTED STANDARD
			<ul style="list-style-type: none"> • Providing solutions to the effects of invasive plant species (<i>avoid introduction of non-native plants, physical removal, chemical and biological control, awareness...</i>) 	
	4.2.3. Deforestation	4.2.3.1. Address deforestation	<ul style="list-style-type: none"> • Discussing deforestation • Identifying the causes of deforestation (<i>human activities, diseases, fires, destruction by animals...</i>) • Examining the impact of deforestation (<i>loss of forest products, loss of biodiversity, leads to global warming, desertification...</i>) • Participating in activities that address deforestation (<i>tree planting initiatives, use of alternative sources of energy, abide by forestry regulations, selective harvesting, conservation in gene banks and forest, agroforestry...</i>) 	<ul style="list-style-type: none"> • Deforestation addressed accordingly

TOPIC	SUB TOPIC	SPECIFIC COMPETENCES	LEARNING ACTIVITIES	EXPECTED STANDARD
4.3. Agriculture in Zambia	4.3.1. Land Tenure Systems	4.3.1.1. Analyse land tenure	<ul style="list-style-type: none"> • Discussing land tenure (<i>legal right to use of land</i>) • Describing the types of land tenure systems in Zambia (<i>traditional/customary land, state land. Leasehold, and free hold</i>) • Relating land tenure to land use, resource management and sustainable development. (<i>land rights, land title and registration, access to credit, land restoration, land disputes and conflict resolution...</i>) 	<ul style="list-style-type: none"> • Land tenure analysed appropriately
	4.3.2. Types of Farming in Zambia	4.3.2.1. Demonstrate understanding of farming in Zambia	<ul style="list-style-type: none"> • Identifying the types of farming in Zambia (<i>Traditional, emergent and commercial- arable and livestock</i>) • Analysing factors that influence farming in Zambia (<i>physical, climatic, economic and socio-cultural...</i>) • Encouraging the family and community to engage in farming that promotes food security and economic development. (<i>sustainable farming practices, ensure food security by setting up small gardens and using improved seed varieties...</i>) 	<ul style="list-style-type: none"> • Understanding of farming in Zambia demonstrated accordingly
	4.3.3. Irrigation Farming	4.3.3.2. Practise irrigation farming	<ul style="list-style-type: none"> • Discussing irrigation farming • Describing the types of irrigation: (<i>drip/trickle down, bucket, canal/furrow, overhead/sprinkler, treadle pump...</i>) • Identifying areas of major irrigation farming in Zambia (<i>Chisamba, Mpongwe, Mkushi, Mazabuka, Lusaka,</i> 	<ul style="list-style-type: none"> • Irrigation farming practised accordingly

TOPIC	SUB TOPIC	SPECIFIC COMPETENCES	LEARNING ACTIVITIES	EXPECTED STANDARD
			<p><i>Kasama, Mununshi, Kawambwa, Mbala...</i>)</p> <ul style="list-style-type: none"> Examining the factors that favour irrigation farming in Zambia (<i>topography, availability of water supply, soil fertility, market, transport, labour and capital</i>) Assessing the negative effects of irrigation farming on the environment (<i>salinisation, water logging, water borne diseases, pollution, leaching....</i>) Encouraging family and local community to engage in irrigation farming (<i>set up irrigation systems, minimize crop failure, ensure food security, increase income...</i>) 	
	4.3.4. Farming and Climate Change	4.3.4.1. Analyse relationship between farming and climate change	<ul style="list-style-type: none"> Describing the impact of climate change on farming (<i>seasonal variations and extreme weather conditions, temperature increase, change in rainfall patterns, shifts in growing season, impacts on pollinators, soil degradation and water scarcity on food production processes...</i>) Providing solutions to the impact of climate change on agriculture (<i>climate smart agricultural practices, crop and animal diversification, irrigation management, water harvesting, support for climate resilient agriculture research and development...</i>) Discussing the impacts of commercial farming practices on biodiversity and climate change (<i>emission of</i> 	<ul style="list-style-type: none"> Relationship between farming and climate change analysed accordingly

TOPIC	SUB TOPIC	SPECIFIC COMPETENCES	LEARNING ACTIVITIES	EXPECTED STANDARD
			<i>Greenhouse Gases (GHGs) through pesticide and fertilizer use, over exploitation of soil, vast monocultures...)</i>	
	4.3.5. Sustainable and unsustainable Farming	4.3.5.1. Practise sustainable farming	<ul style="list-style-type: none"> • Discussing sustainable farming • Exploring sustainable farming practices (<i>organic farming, crop selection, agroforestry, water conservation, soil conservation, pest management...</i>) • Carry out sustainable farming practices 	<ul style="list-style-type: none"> • Sustainable farming practised appropriately
		4.3.5.2. Analyse unsustainable farming	<ul style="list-style-type: none"> • Discussing unsustainable farming • Analysing unsustainable agricultural practices (<i>overstocking, lack of fallowing, mono-cropping, poor land tillage methods, slope ward cultivation, use chemical fertilisers, pesticides and herbicides...</i>) 	<ul style="list-style-type: none"> • Unsustainable farming analysed appropriately
	4.3.6. Sugarcane Growing in the Sub-Region (South Africa)	4.3.6.1. Relate sugar cane growing in South Africa to Zambia	<ul style="list-style-type: none"> • Showing areas of sugar cane growing in South Africa (<i>Kwazulu Natal and Mpumalanga provinces</i>) • Discussing conditions for large scale sugar cane growing (<i>conducive climatic and soil condition, protective tariffs and trade agreements, subsidies and incentives, irrigation infrastructure development...</i>) • Relate sugar cane growing conditions in South Africa to Zambia 	<ul style="list-style-type: none"> • Sugar cane growing in South Africa related to Zambia appropriately
	4.3.7. Pastoral Farming in the Sub-Region (Botswana)	4.3.7.1. Relate pastoral farming in Botswana to Zambia	<ul style="list-style-type: none"> • Identifying pastoral farming areas in Botswana (<i>Ghanzi, central, Kweneng, Ngami land, North-west and southern districts...</i>) 	<ul style="list-style-type: none"> • Pastoral farming for Botswana related to Zambia

TOPIC	SUB TOPIC	SPECIFIC COMPETENCES	LEARNING ACTIVITIES	EXPECTED STANDARD
			<ul style="list-style-type: none"> Discussing factors that promote pastoral farming in Botswana (<i>Geographical conditions: semi-arid and arid climate, land availability, natural pasture, government policies: - research and development, diversified livestock, infrastructure development, stronger veterinary services, cultural significance: - traditional knowledge ...</i>) Relate factors that promote pastoral farming in Botswana to Zambia 	
	4.3.8. World Agriculture	4.3.8.1. Demonstrate knowledge of major types of farming in the world	<ul style="list-style-type: none"> Identifying the major farming types and areas in the world Describing the major farming types in the world (<i>shifting cultivation, semi-permanent cultivation, mixed farming, intensive and extensive farming, livestock farming and plantation agriculture</i>) 	<ul style="list-style-type: none"> Knowledge of major types of farming in the world demonstrated correctly
4.4. Fishing in Zambia	4.4.1. Major Fisheries in Zambia	4.4.1.1. Demonstrate understanding of fisheries in Zambia	<ul style="list-style-type: none"> Locating the major fisheries in Zambia (<i>map of Zambia</i>) Identifying types of fish found in Zambia (<i>lake sardines, Nile perch, green/yellow headed breams, tiger fish, barbell fish, cat fish, mud /sack fish...</i>) Describing the fishing methods used in Zambia (<i>commercial: netting, casting and longlining-Traditional: baskets, spears, hooks, trapping...</i>) 	<ul style="list-style-type: none"> Understanding of fisheries in Zambia demonstrated accordingly

TOPIC	SUB TOPIC	SPECIFIC COMPETENCES	LEARNING ACTIVITIES	EXPECTED STANDARD
	4.4.2. Methods of Fishing and Processing	4.4.2.1. Demonstrate understanding of fish processing	<ul style="list-style-type: none"> Identifying fish processing methods (<i>salting, sun drying, smoking, canning and freezing...</i>) Engaging fish processing measures (<i>smoking or drying and packaging for storage or sale...</i>) 	<ul style="list-style-type: none"> Understanding of fish processing demonstrated appropriately
	4.4.3. Fisheries Related Entrepreneurship	4.4.3.1. Practise fisheries related entrepreneurship	<ul style="list-style-type: none"> Analysing the importance of fishing (<i>source of food, employment, source of income, source of foreign exchange, tourist attraction...</i>) Setting up fisheries related entrepreneurship (<i>process fish into fish fillet, smoked fish or fish powder, setting small fish selling businesses within their community...</i>) 	<ul style="list-style-type: none"> Fisheries related entrepreneurship practised accordingly
	4.4.4. Challenges and Solutions in Fishing	4.4.4.1. Provide solutions to fishing challenges	<ul style="list-style-type: none"> Discussing challenges associated with fishing (<i>use of bad methods of fishing, over fishing, post-harvest losses, transportation challenges, invasive species, pollution, flooding...</i>) Providing sustainable fish management measures (<i>use of sustainable fishing methods, fishing ban, catch limits, sensitisation, fish restocking, fish farming as an alternative...</i>) 	<ul style="list-style-type: none"> Solutions to fishing challenges provided accordingly
	4.4.5. Fish Farming (Aquaculture)	4.4.5.1. Practise fish farming	<ul style="list-style-type: none"> Discussing Fish farming Describing fish farming methods (<i>fish ponds, fish cages, fish tanks</i>) Identifying major areas of fish farming in Zambia (<i>Kariba, Bangweulu, Mwekera, Chilanga, Tanganyika, Mweru- Luapula, Kafue...</i>) 	<ul style="list-style-type: none"> Fish farming practised accordingly

TOPIC	SUB TOPIC	SPECIFIC COMPETENCES	LEARNING ACTIVITIES	EXPECTED STANDARD
			<ul style="list-style-type: none"> Exploring the factors supporting fish farming in Zambia (<i>availability of fish feed, natural water bodies, fingerlings, skilled and non-skilled labour, extension services, capital...</i>) Engaging in fishing farming related activities <i>at school or community level (setting up small fish ponds, water quality management, fish feeding...)</i> 	
	4.4.6. Fishing in the Sub-Region (Malawi)	4.4.6.1. Adopt fishing practices from Malawi	<ul style="list-style-type: none"> Locating the major fisheries in Malawi (<i>Map of Malawi showing major fisheries</i>) Identifying the types of fish caught in Malawi (<i>Chambo, cat fish, Usipa, Utaka, Matemba, Mpassa, Sanjika, Kampango, Bombe...</i>) Discussing measures used to conserve fish in Malawi (<i>Chambo conservation project, catch limits by commercial farmers, use of sustainable fishing methods, fish ban, sensitization, fish farming as an alternative, fish licenses, community-based management, gear restrictions...</i>) 	<ul style="list-style-type: none"> Fishing practices from Malawi adopted accordingly
	4.4.7. Fish Farming in the Sub-Region (Zimbabwe)	4.4.7.1. Draw lessons of fish farming from Zimbabwe	<ul style="list-style-type: none"> Locating major fish farming areas in Zimbabwe (<i>Lake Kariba, Makoni, Mutasa, Chivi, Chiredzi, Masvingo, Shamva...</i>) Analysing factors promoting fish farming in Zimbabwe (<i>favorable sub-tropical climate, suitable land, government support, high market demand, proximity to market,</i> 	<ul style="list-style-type: none"> Lessons of fish farming drawn from Zimbabwe

TOPIC	SUB TOPIC	SPECIFIC COMPETENCES	LEARNING ACTIVITIES	EXPECTED STANDARD
			<p><i>availability of fish feed, abundant natural water resources, research and extension services...)</i></p> <ul style="list-style-type: none"> • Evaluating the challenges affecting fish farming in Zimbabwe: <i>water pollution, weak disease management, high feed cost, limited market and sells, climate change, inadequate infrastructure development, inadequate training and extension services, lack of credit facilities, weak policy and regulation...)</i> • Discussing solutions to challenges affecting fish farming in Zimbabwe: <i>sustainable subsidies and credit facilities, intensive training of human resources and fisheries experts, implementation of waste management system, use eco-friendly aquaculture practices, cheaper alternatives of fish feeds, reliable finger ring production, climate resilient aquaculture practices, utilisation of high profit export markets...)</i> 	
4.5. Tourism in Zambia	4.5.1. Local and International Tourism	4.5.1.1. Demonstrate knowledge of tourism in Zambia	<ul style="list-style-type: none"> • Discussing tourism: • Identifying types of tourism in Zambia (<i>local and international</i>) • Locating the major tourist attractions found in Zambia (<i>game parks, waterfalls, traditional ceremonies...)</i> • Analysing the importance of tourism (<i>employment, source of forex, cultural exchange, community empowerment, promotes biodiversity...)</i> 	<ul style="list-style-type: none"> • Knowledge of tourism in Zambia demonstrated clearly

TOPIC	SUB TOPIC	SPECIFIC COMPETENCES	LEARNING ACTIVITIES	EXPECTED STANDARD
	4.5.2. Sustainable Tourism	4.5.2.1. Practise sustainable tourism	<ul style="list-style-type: none"> Identifying types of sustainable tourism (<i>ecotourism, cultural, agri-tourism, adventure, community-based...</i>) Exploring the importance of sustainable tourism (<i>conservation, cultural exchange, environmental protection, climate change mitigation, promotes biodiversity...</i>) Participating in sustainable tourism practices. (<i>eco-friendly travel, protect and preserve the environment, protect cultural heritage, support local communities...</i>) 	<ul style="list-style-type: none"> Sustainable tourism practised appropriately
	4.5.3. Challenges of Tourism and Solutions	4.5.3.1. Provide solutions to the challenges of tourism	<ul style="list-style-type: none"> Discussing the challenges of tourism: (<i>environmental pollution, habitat destruction, cultural exploitation, inadequate infrastructure, inadequate marketing strategy...</i>) Evaluating solutions to the challenges of tourism :(<i>sustainable tourism practices, infrastructure development, diversification of tourist destinations, publicity of the tourist attractions abroad, establishment of regulatory bodies, establishment of game reserves and forests ...</i>) 	<ul style="list-style-type: none"> Solutions to the challenges of tourism provided accordingly

TOPIC	SUB TOPIC	SPECIFIC COMPETENCES	LEARNING ACTIVITIES	EXPECTED STANDARD
	4.5.4. Tourism in the Sub-Region (Kenya and South Africa)	4.5.4.1. Adopt best tourism practices from Kenya and South Africa	<ul style="list-style-type: none"> Locating the major tourist attractions in Kenya and South Africa (<i>South Africa: Table Mountain, Kruger National Park, Robben Island... Kenya: Massai Mara, Mombasa Old Town, Malindi, Fort Jesus...</i>) Analysing tourism development in Kenya (<i>world class infrastructure e.g. roads, hotels, airports, world class national parks and game reserves, developed coast lines and beaches, rich cultural heritage, diverse outdoor activities, robust advertisement of tourist attractions...</i>) Analysing tourism development in South Africa (<i>financial incentives for tourism development, world class infrastructure e.g. roads, hotels, airports, historical sites, diverse outdoor activities, promotion of establishment of private game ranches, robust advertisement of tourist attractions, developed coast lines and beaches...</i>) 	<ul style="list-style-type: none"> Best tourism practices from Kenya and South Africa adopted appropriately
4.6. Fuel and Energy	4.6.1. Fuel, Power and Energy in Zambia	4.6.1.1. Examine renewable and non-renewable energy sources	<ul style="list-style-type: none"> Identifying the sources of power and energy used in different parts of Zambia (<i>nuclear, fossil energy, natural gas, oil, coal, wind, solar, geothermal and hydro power</i>) Classifying renewable and non-renewable energy sources: (<i>Renewable-solar, wind, hydro, geothermal, ocean</i>) 	<ul style="list-style-type: none"> Renewable and non-renewable energy sources examined accordingly

TOPIC	SUB TOPIC	SPECIFIC COMPETENCES	LEARNING ACTIVITIES	EXPECTED STANDARD
			<p><i>and bioenergy. Non-renewable: fossil fuels)</i></p> <ul style="list-style-type: none"> • Discussing the advantages of renewable and non-renewable energy sources (Renewable <i>generating energy with no air pollution, reduces dependency on imported fuels, lower operational costs...</i>) • Discussing disadvantages of renewable and non-renewable energy sources (Renewable <i>solar power and wind power are intermittent since they depend on the time of day, and weather conditions, high upfront costs, require significant land areas, grid integration challenges ...</i>) • Non-renewable <i>high energy density, reliability and consistence, established infrastructure, economic benefits, low initial costs, energy security...</i>) • Non-renewable <i>limited energy security, accidents and spills, generate hazardous waste, land use and habitat destruction.)</i> 	
		4.6.1.2. Provide solutions to the challenges of transporting fuel and power	<ul style="list-style-type: none"> • Identifying ways of transporting fuel and power (<i>Water: ship, barge and cables. Land: road, rail, pipe line and cables</i>) • Analysing the challenges of transporting fuel and power (<i>Fuel; environmental risks, cost of infrastructure, security risks development. Power; energy loss during transmission, aging power grids, security risks...</i>) • Exploring innovative energy solutions (<i>localized energy solutions, energy storage solutions...</i>) 	<ul style="list-style-type: none"> • Solutions to the challenges of transporting fuel and power provided accordingly

TOPIC	SUB TOPIC	SPECIFIC COMPETENCES	LEARNING ACTIVITIES	EXPECTED STANDARD
	4.6.2. Challenges and Solutions in Production of Energy	4.6.2.1. Address challenges in production of different types of energy	<ul style="list-style-type: none"> Evaluating the challenges of producing different types of energy, (<i>Renewable: intermittent, they are location- specific, high upfront costs, high storage costs ... Non-renewable: (finite resources, pollution, price volatility affects energy costs...)</i>) Exploring the solutions to the challenges associated with production of different types of energy (Renewables: <i>energy storage solutions, diversification of renewable energy sources, grid management system... Non-Renewables: improving energy efficiency, reduce consumption, transition to renewable energy, emission reduction technologies, diversifying energy sources...)</i>) 	<ul style="list-style-type: none"> Challenges associated with production of different types of energy addressed appropriately
	4.6.3. Hydro-Electric Power (HEP) in Zambia	4.6.3.1. Analyse hydro-electric power in Zambia	<ul style="list-style-type: none"> Locating the major hydro-electric power stations on the map of Zambia (<i>Kafue Gorge, Kariba North Bank, Musonda Falls, Victoria Falls, Itezhi-Tezhi...)</i>) Discussing factors influencing location and development of HEP stations: (<i>large volume of water, market, steep gradient, capital, firm bed rock...)</i>) Evaluating the negative impacts of HEP development on the environment (<i>flooding, displacement of settlements and wildlife, deforestation, methane emission...)</i>) 	<ul style="list-style-type: none"> Hydro-electric power in Zambia analysed accordingly

TOPIC	SUB TOPIC	SPECIFIC COMPETENCES	LEARNING ACTIVITIES	EXPECTED STANDARD
		4.6.3.2. Adopt measures to reduce overdependence on HEP	<ul style="list-style-type: none"> Examining impact of overdependence on HEP (<i>vulnerability to draughts and water scarcity, lack of investment in other energy sources, power shortages, over exploitation of water resources, high energy prices...</i>) Adopting measures to reduce overdependence on HEP: (<i>diversify energy sources, promote energy conservation, implement smart grid technologies, research and development in new energy technologies, education and awareness on energy efficiency...</i>) 	<ul style="list-style-type: none"> Measures to reduce overdependence on HEP adopted accordingly
	4.6.4. Sustainable Energy	4.6.4.1. Use sustainable energy responsibly	<ul style="list-style-type: none"> Discussing sustainable energy Identifying different sources of sustainable energy (<i>solar, wind, hydro, geothermal and biomass...</i>) Analysing conditions under which use of wood / biomass as fuel is sustainable (<i>requires replacement of the trees or other plant materials used...</i>) Using sustainable energy responsibly (conserving energy, energy efficient practices...) 	<ul style="list-style-type: none"> Sustainable energy used accordingly
	4.6.5. Energy and Climate Change	4.6.5.1. Examine relationship between energy and climate change	<ul style="list-style-type: none"> Evaluating the potential of different renewable energy technologies to reduce global warming (<i>solar photovoltaics, hydropower...</i>) 	<ul style="list-style-type: none"> Relationship between energy and climate change examined

TOPIC	SUB TOPIC	SPECIFIC COMPETENCES	LEARNING ACTIVITIES	EXPECTED STANDARD
			<ul style="list-style-type: none"> Analysing different non-renewable energy and their impact on climate (<i>coal, oil and natural gas; emits greenhouse gases, accelerate climate change impacts, potential for price volatility and energy insecurity, pollutes the environment...</i>) Promoting use of renewable energy technologies 	accordingly
	4.6.6. HEP in the Sub-Region	4.6.6.1. Evaluate HEP in the Sub-Region	<ul style="list-style-type: none"> Locating major HEP stations on the map of the sub-region: (<i>Kariba dam, Cahora Bassa dam, Vaal dam and Inga dam...</i>) Assessing the power demand in the sub-region: (<i>distribution, national grids, interconnectors, interconnection standards and consumption...</i>) Examining measures to address the power demand in the sub region: (<i>transmission and distribution upgrades, regional integration, promote energy efficient practices and technologies, renewable energy integration...</i>) 	<ul style="list-style-type: none"> HEP in the Sub region evaluated accordingly.
4.7. Mining	4.7.1. Mining in Zambia	4.7.1.1. Demonstrate understanding of mining in Zambia	<ul style="list-style-type: none"> Locating the major mineral deposits in Zambia (<i>copper, manganese, cobalt, coal, gold, limestone....</i>) Describing factors influencing mining: (<i>geological occurrence, quality of ores, accessibility, operational costs, transport, national and international demand and government policy...</i>) Interpreting simple tables of data 	<ul style="list-style-type: none"> Understanding of mining in Zambia demonstrated clearly

TOPIC	SUB TOPIC	SPECIFIC COMPETENCES	LEARNING ACTIVITIES	EXPECTED STANDARD
			showing production and marketing figures of mining companies (<i>charts and tables</i>)	
	4.7.2. Mineral Processing and Economic Growth in Zambia	4.7.2.1. Relate mineral processing to economic growth in Zambia	<ul style="list-style-type: none"> • Describing stages of mineral processing in Zambia: (<i>blasting, crushing, floatation, smelting and refining...</i>) • Establishing a relationship between mining and economic growth: (<i>contribute Gross Domestic Product (G.D.P), employment, export revenues, infrastructure development...</i>) 	• Mineral processing and economic growth in Zambia related accordingly
	4.7.3. Uses of Major Minerals	4.7.3.1. Use opportunities within Zambia's mineral value chain.	<ul style="list-style-type: none"> • Describing various uses of major minerals: (<i>Copper- alloys, electrical wires, coins, ornaments, roofing...</i>) <i>Lead-for piping, battery plates, cables, tanks, reinforced cylinders for transporting nuclear wastes.</i> <i>Zinc-for roofing, tubes and castings</i> <i>Coal-(thermal electricity, smelting, raw material and heating...)</i> • Exploring ideas of value addition (<i>creating finished products...</i>) 	• Opportunities within Zambia's mineral value chain used accordingly
	4.7.4. Marketing of Major Minerals	4.7.4.1. Provide solutions to challenges Zambia faces in mineral markets	<ul style="list-style-type: none"> • Identifying the markets for Zambia's major minerals: (<i>Germany, United Kingdom, China, India, Japan, Italy and U.S.A...</i>) • Tracing major export routes of Zambia's major minerals (<i>By road and rail to Dar es Salaam (Tanzania), to Port Elizabeth, East London in South Africa, Maputo in</i> 	• Solutions to challenges Zambia faces in mineral markets provided accordingly

TOPIC	SUB TOPIC	SPECIFIC COMPETENCES	LEARNING ACTIVITIES	EXPECTED STANDARD
			<p><i>Mozambique and Luanda in Angola... By sea to Europe, Asia and North America.)</i></p> <ul style="list-style-type: none"> Investigating the challenges in Zambia's mineral markets 	
	4.7.5. Mining in the Sub-Region (Angola and South Africa)	4.7.5.1. Draw lessons of mining from Angola and South Africa	<ul style="list-style-type: none"> Locating mining areas on the map of Angola and South Africa: Angola (<i>petroleum, diamond and gold...</i>) South Africa (diamond, gold, Uranium...) Discussing the effects of mining on the environment (<i>pollution, deforestation, loss of life, depletion of underground water...</i>) Drawing lessons of mining from Angola and South Africa (investing in technology, renewable energy, strong regulation and enforcement...) 	<ul style="list-style-type: none"> Lessons of mining drawn from Angola and South Africa accordingly
4.8. Manufacturing and Processing Industries	4.8.1. Manufacturing and Processing Industries in Zambia	4.8.1.1. Examine major processing and manufacturing industries in Zambia	<ul style="list-style-type: none"> Discussing processing and manufacturing industries Locating major processing and manufacturing areas (<i>Kafue, Chilanga, Lusaka, Kabwe, Kitwe, Ndola...</i>) Discussing factors influencing the location of <i>industries</i> (<i>Raw materials, transport, market, labour, capital...</i>) Describing importance of processing and manufacturing industries (<i>development of infrastructure, employment, import substitution, utilisation of social amenities, and promotion of local regional and international trade ...</i>). 	<ul style="list-style-type: none"> Major processing and manufacturing industries in Zambia examined accordingly

TOPIC	SUB TOPIC	SPECIFIC COMPETENCES	LEARNING ACTIVITIES	EXPECTED STANDARD
	4.8.2. Challenges in processing and manufacturing industries	4.8.2.1. Provide solutions to challenges in processing and manufacturing industries	<ul style="list-style-type: none"> • Describing challenges associated with processing and manufacturing industries (<i>raw material sourcing, water scarcity, waste management, labour costs and skills gap, global competition, technological advancement ...</i>) • Evaluating the impacts of manufacturing and processing industries on the environment (<i>pollution, resource depletion, climate change, waste generation, habitat destruction, soil erosion, human health impacts...</i>) • Providing solution to challenges associated with processing and manufacturing industries (<i>innovative solutions, promoting sustainability, leveraging technology, career development...</i>) 	<ul style="list-style-type: none"> • Solutions to challenges in processing and manufacturing industries provided appropriately
	4.8.3. Manufacturing and Processing Industries in Sub-Region (Zimbabwe and South Africa)	4.8.3.1. Analyse manufacturing and processing industries in Zimbabwe and South Africa	<ul style="list-style-type: none"> • Locating major manufacturing and processing Industries in South Africa and Zimbabwe: (<i>map showing iron and steel works in South Africa and Zimbabwe and Motor assembly in South Africa</i>) • Describing trade of the manufactured goods in the sub region (<i>direction and volume, value of trade</i>) 	<ul style="list-style-type: none"> • Manufacturing and processing industries in Zimbabwe and South Africa analysed accordingly

TOPIC	SUB TOPIC	SPECIFIC COMPETENCES	LEARNING ACTIVITIES	EXPECTED STANDARD
	4.8.4. Manufacturing Industries in the World(Japan and China)	4.8.4.1. Draw lesson from rapid industrial expansion in Japan and China	<ul style="list-style-type: none"> • Locating major manufacturing centres (<i>showing motor assembly on the map of Japan and solar panels and renewable energy equipment from China</i>) • Discussing factors influencing rapid industrial expansion in Japan and China (Japan: post-World War II reconstruction and investment, innovative management and technology, highly skilled and educated work force, strategic government support and policies, collaboration and partnership... China: Raw materials, economic diversification, large scale investment in infrastructure, export-oriented manufacturing, low labour costs, skilled work force...) 	<ul style="list-style-type: none"> • Lessons for rapid industrial expansion drawn from Japan and China accordingly
4.9. Transport and Communication	4.9.1. Transport and Communication in Zambia	4.9.1.1. Demonstrate understanding of transport and communication in Zambia	<ul style="list-style-type: none"> • Identifying the types of transport and communication. (Transport: rail, road, water, air, animal and human Communication: phones, satellite, radio, T. V. internet, print and electronic media...) • Analysing the challenges associated with transport and communication: (<i>poor transport infrastructure, limited access to transport and communication infrastructure, slow movement of goods and services, inadequate safety standards, fluctuation of fuel prices...</i>) • Assessing the solutions to the challenges of transport and communication: 	<ul style="list-style-type: none"> • Understanding of transport and communication Zambia accordingly

TOPIC	SUB TOPIC	SPECIFIC COMPETENCES	LEARNING ACTIVITIES	EXPECTED STANDARD
			<p><i>(Transport infrastructure development, public-private partnership, promotes alternative modes of transport, enforce safety regulations...)</i></p> <p>Communication: <i>(invest in digital infrastructure, improve access to reliable and affordable phone and internet services...)</i></p>	
	4.9.2. Environmental impact of different forms of transport	4.9.2.1. Analyse environmental impacts of different forms of transport	<ul style="list-style-type: none"> Analysing the environmental impacts of different forms of transport used by individuals and communities <i>(pollution, deforestation, end of life battery dispersal concerns...)</i> 	<ul style="list-style-type: none"> Environmental impact of different forms of transport analysed accordingly
	4.9.3. Sustainable Mobility in Zambia	4.9.3.1. Adopt sustainable mobility practices.	<ul style="list-style-type: none"> Discussing sustainable mobility Identifying different modes of sustainable mobility: <i>(walking, and cycling, electric vehicles, public transport (buses and trains...)</i> Analysing advantages and disadvantages of sustainable mobility: (Advantages: <i>less reliance on fossil fuel, lower maintenance costs, improved air quality, cost saving, reduced noise pollution, improved public health, lower operating costs ...</i> Disadvantages: <i>higher upfront costs, scarcity/limited of charging- fueling and maintenance facilities, limited range and charging time for electrical vehicles...)</i> Using and encouraging others to adopt sustainable mobility practices 	<ul style="list-style-type: none"> Sustainable mobility practices adopted appropriately

TOPIC	SUB TOPIC	SPECIFIC COMPETENCES	LEARNING ACTIVITIES	EXPECTED STANDARD
	4.9.4. Transport and communication the Sub-Region	4.9.4.1. Analyse efforts to improve transport and communication in landlocked countries	<ul style="list-style-type: none"> • Discussing the efforts made by landlocked countries to improve transport and communication: <i>(transformation from landlocked into land linked, improving connectivity and facilitating trade and economic growth, implementation of corridor approach to improve trade and transit transport in the region, implementation of land linked country regional integration...)</i> • Analysing the benefits of the efforts made by landlocked countries to improve transport and communication: <i>(improved connectivity, increased trade, reduced transportation costs, enhanced economic competitiveness, job creation and poverty eradication, improved access to services, regional integration...)</i> 	<ul style="list-style-type: none"> • Efforts to improve transport and communication in landlocked countries analysed accordingly
	4.9.5. World Transport and Communication	4.9.5.1. Demonstrate understanding of new trends in transport and communication	<ul style="list-style-type: none"> • Describing the new trends in transport and communication: <i>(integration of various forms of transport services, technology utilisation e.g. Artificial Intelligence (A.I), investment in electrical vehicles, addressing gaps in public transport access and mobility technology, green energy utilisation...)</i> 	<ul style="list-style-type: none"> • Understanding of new trends in transport and communication demonstrated appropriately