ZIMBABWE

MINISTRY OF PRIMARY AND SECONDARY EDUCATION

GEOGRAPHY SYLLABUS

FORMS 5 - 6

2016- 2022

Curriculum Development Unit

P.O. Box MP133
Mount Pleasant
Harare

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- Environmental Management, Renewable Energy and Climate Change Research Centre (HIT)
- Publishers
- United Nations Children's Education Fund (UNICEF)

- United Nations Educational Scientific Cultural Organisation (UNESCO)
- Civil Protection Department

TABLE OF CONTENTS

1.0 PREAMBLE

1.1 INTRODUCTION

The forms 5 - 6 syllabus is designed to consolidate competences already acquired in the study of geography. It seeks to produce learners with requisite skills to transform their local, national, regional and global geographical space. This will raise awareness of environmental management, resource distribution and utilisation for the benefit of Zimbabwean citizens. The syllabus seeks to nurture in learners positive attitudes, values, practical competences and skills that enable them to participate in the development of the country and the world at large. It enables critical evaluation in learners by developing solutions and skills leading to sustainable development. The syllabus recognises individual talents and special education needs.

1.2 RATIONALE

Form 5 and 6 Geography syllabus will equip learners with skills to comprehend spatial distribution patterns, processes and interactions of phenomena. It is designed to make learners appreciate diversity, valuation, utilisation and sustainability of resources. The learning area gives an opportunity to learners to manipulate geographical data and make informed judgements in their day to day experiences.

The Geography Syllabus enables learners to develop the following skills:-

- Communication and investigation
- Problem solving

- Critical thinking
- Decision making
- Technology and innovation
- Graphicacy and numeracy
- Cartography

1.3 SUMMARY OF CONTENT

The geography learning area comprises both physical and human aspects. It also covers fieldwork, map interpretation skills and graphicacy.

1.4 ASSUMPTIONS

It is assumed that learners:

- have enterprise skills
- have knowledge of map interpretation and graphicacy
- have mastered basic physical and human geography concepts
- have some grasp of GIS and remote sensing skills
- have knowledge of natural resources and can positively interact with their environment.

1.5 CROSS-CUTTING THEMES

This phase will develop in learners, an in-depth understanding of:

- environmental issues
- safety and health issues
- disaster risk management
- enterprise
- sexuality, HIV and AIDS
- heritage
- climate change
- financial literacy
- gender
- technology

2.0 PRESENTATION OF SYLLABUS

The Geography Syllabus is a single document covering Forms 5 - 6.

3.0 AIMS

The aims of the syllabus are to:

3.1 develop in learners skills of observation, recording, analysis and interpretation of geographical phenomena
3.2 develop in learners an in-depth understanding of Zimbabwean, African and World environmental issues
3.3 equip learners with practical Geographic Information Systems and Remote Sensing skills
3.4 promote an appreciation of the diversity of cultural issues
3.5 develop in learners skills of sustainably using their resources
3.6 nurture self-sustained citizens with enterprise skills

4.0 SYLLABUS OBJECTIVES

By the end of this learning phase learners should be able to:

4.1 demonstrate practical Geographic Information Systems and Remote Sensing Skills for describing the spatio-temporal distribution of phenomena
4.2 evaluate the causes, effects and solutions related to natural and human induced disasters
4.3 analyse the physical and human environmental phenomena of their locality, Zimbabwe, Africa and the world
4.4 solve key global environmental issues
4.5 demonstrate knowledge of geographical data collection, illustration, analysis and interpretation

4.6 examine the diversity of indigenous knowledge systems and their impact on the environment

4.7 design sustainable economic projects.

5.0 METHODOLOGY AND TIME ALLOCATION

This syllabus takes into account learner centred approaches and methods. The choice of teaching methods and approaches should be guided by the principles of inclusivity, relevance, specificity, gender sensitivity and respect. The following approaches and methods are recommended in the teaching and learning of geography:-

Approaches

The syllabus proposes the use of the concentric, systems and integrated approaches.

The concentric approach: It recommends teaching geography starting from the local environment, then move to the whole of Zimbabwe, Southern African Development Community region, rest of Africa and the World.

Systems Approach: It involves the study of inter-relationships of various components in the environment which make up the whole. The focus is on the inputs, processes and outputs and feedback in a given system.

The integrated approach: It recommends that related topics should be taught together rather than in Isolation.

The quantitative approach: It involves the use of deductive methods and research.

5.1 METHODOLOGY

. The following are suggested methods of teaching and learning geography:

- Demonstrations
- Field work
- Presentations
- Games
- Simulations
- Debates and Quiz
- Laboratory work and experiments
- Group work and discussions
- Role-play
- Case studies
- Project based learning
- Educational tours
- Discovery learning

NB. The above suggested methods should be enhanced by the application of orthodidactic principles and multi -sensory approaches to teaching. These include tactility, concreteness, individualisation, self-activity, totality and wholeness. Teachers are encouraged to address the learners' residual senses

5.2 TIME ALLOCATION

Ten (10) periods of 40 minutes per week should be allocated for adequate coverage of the syllabus. The teachers should allocate time appropriately for learners with individual special education needs. Educational tours should be undertaken at least once a year.

6.0 TOPICS

6.1. Geographic Information Systems and Remote Sensing

6.2 Geo-statistical analysis and presentation

6.3 Environmental management

6.4 Atmospheric processes and phenomena

6.5 Hydrology and fluvial processes

6.6 Biogeography

6.7 Geomorphology

6.8 Settlement dynamics

6.9 Population and migration

6.10 Agricultural production and food security

6.11 Industrial dynamics

6.12 Mining and mineral beneficiation

6.13 Energy sources and development

6.14 Transport systems and trade

6.15 Regional inequalities and development

7.0 SCOPE AND SEQUENCE

7.1 TOPIC 1: GEOGRAPHIC INFORMATION SYSTEMS AND REMOTE SENSING

FORM 5	FORM 6
• Coordinates and Coordinate systems • Projection • Global Positioning Systems (GPS) • Conceptual models of geographic space • Georeferencing and spatial data capture	• The remote sensing system • Image acquisition and structure • Resolution • Image interpretation

7.2: GEO-STATISTICAL ANALYSIS AND PRESENTATION

FORM 5	FORM 6
• Levels of measurement • Univariate statistics • Bivariate statistics • Graphs and maps • Research techniques	• Spatial interpolation • Measures of spatial autocorrelation

7.3 ENVIRONMENTAL MANAGEMENT

FORM 5	FORM 6
• Environmental pollution and environmental degradation • Causes, effects and control measures of pollution • Causes, effects and control measures of environmental degradation • Environmental Impact Assessment • Environmental management projects	

7.4 ATMOSPHERIC PROCESSES AND PHENOMENA

FORM 5	FORM 6
• Energy Budgets • The Earth-Atmosphere Energy Budget • Weather Processes • Air Masses	• Micro-climates • Climate Change • Weather and Climatic Hazards and mitigation

7.5 GEOMORPHOLOGY

FORM 5	FORM 6
• Plate Tectonics • Rocks and Weathering • Slope Development	• Tropical Landforms Development • Hazards, Impact and Mitigation

7.6: HYDROLOGY AND FLUVIAL PROCESSES

FORM 5	FORM 6
• The drainage basin system • Rainfall-discharge relationships within drainage basins • River channel processes and landforms	

• Hydrological hazards and mitigation	

7.7 BIOGEOGRAPHY

FORM 5	FORM 6
• Factors affecting vegetation distribution • Plant succession • Biogeochemical cycles • Gerschmel diagrams • Biomass and biomes (tropical and temperate biomes) • Biodiversity (plant and animal diversity) • Plant and animal adaptation	• Soil forming factors, soil profiles and soil catena • Measurement of soil characteristics • Sustainable management of ecosystem

7.8 POPULATION AND MIGRATION

FORM 5	FORM 6
• Population indicators • Population health and diseases • Population growth • Population-Resource Relationships	• Migration • Patterns of migration • Causes and impacts of migration • Population policies

7.9 SETTLEMENT DYNAMICS

FORM 5	FORM 6
• Site and location of settlements • Settlement hierarchy • Growth points • Land reform and resettlement • Functions of rural and urban settlements • Rural-urban interaction • Urbanisation and counter urbanisation	• Urban morphology • Settlement development • Spheres of influence • Delimitation of the CBD • Rural and urban landuse planning

7.10 AGRICULTURAL PRODUCTION AND FOOD SECURITY

FORM 5	FORM 6
• Factors affecting agricultural production • Agricultural Location • Farming systems in the Tropics • The Green Revolution	• Land Reform and food security • Value addition and Agribusiness • Climate change and other threats to food security • Responses to climatic change

7.11 Mining and Mineral Beneficiation

FORM 5	FORM 6
• Mining legislation and mining policies in Zimbabwe • Environmental Impact Assessment in mining • Prospecting methods • Mineralogy • Small and large scale mining enterprises • Impact of mining and mitigation	• Value addition and Beneficiation methods • Marketing of minerals • Safety and health in mining

7.12 INDUSTRIAL DYNAMICS

FORM 5	FORM 6
• Industrial Location and relocation • Industrial Linkages and Agglomeration • Small and medium scale Enterprises • Hi-tech industries • Tourism industry	

7.13 Energy Sources and Development

FORM 5	FORM 6
• Sources of energy in Zimbabwe: Actual and	• Global distribution of energy sources

Potential • Clean sources of energy (going green) • Green energy generation	• Global trends in energy use • Sustainable management of energy sources

7.14 Transport Systems and Trade

FORM 5	FORM 6
• Distribution of transport systems and their purposes in Zimbabwe. • Factors governing patterns of transport networks. • Transport enterprise	• Trade policies in Zimbabwe and their impact on trade • Current trends in Zimbabwean trade • Global inequalities in trade flows and solutions • Factors influencing global trade patterns • Trade opportunities in the local area

7.15 Regional Inequalities and Development

FORM 5	FORM 6
• Indicators of economic development • Economic activities (primary, secondary, tertiary, quaternary) and their role in economic development • Regional inequalities (causes, nature, impacts and solutions)	• SMEs in Zimbabwe and their impact on economic development

8.0 COMPETENCY MATRIX

FORM 5: SYLLABUS

TOPIC 1: GEOGRAPHIC INFORMATION SYSTEMS AND REMOTE SENSING

TOPIC	OBJECTIVES Learners should be able to:	CONTENT	SUGGESTED NOTES AND ACTIVITIES	SUGGESTED RESOURCES
Coordinates and Coordinate systems	• locate features using the different coordinate types • distinguish the major coordinate systems	• Geographic coordinates • Plane coordinates • Polar coordinates • Universal Transverse Mercator (UTM) coordinate system	• Identifying different coordinate types on both digital and hard copy maps • Distinguishing the major coordinate systems	• Recommended textbooks • GIS software (QGIS, ILWIS, Arcmap, Arcview) • Computers • Hard copy Surveyor General maps
Projection	• Project a vector layer from one coordinate system to	• Forward projection • Inverse projection	Projecting a vector layer from one coordinate system to another	• Recommended textbooks • GIS software (QGIS, ILWIS, Arcmap,

TOPIC	OBJECTIVES Learners should be able to:	CONTENT	SUGGESTED NOTES AND ACTIVITIES	SUGGESTED RESOURCES
	another	• Examples of forward projections (cylindrical, conical and azimuthal)		Arcview) • Computers • Hard copy Surveyor General maps
Global Positioning Systems (GPS)	• demonstrate knowledge on how GPS measure location • mark location using GPS • navigate using GPS • identify possible error in GPS position and suggest solutions	• Trilateration • Sources of GPS error	• Marking location using GPS in the field • Navigating in the field using GPS • Collecting data in the field using GPS • Displaying collected vector data in a GIS	• Recommended textbooks • Hand held GPS set/ Smart phone • GIS software (QGIS, ILWIS, Arcmap, Arcview) • Computers • Hard copy Surveyor General maps
Conceptual models of	• distinguish between	• Vector data model (point,	• Visualising (distinguish)	• Recommended textbooks

TOPIC	OBJECTIVES Learners should be able to:	CONTENT	SUGGESTED NOTES AND ACTIVITIES	SUGGESTED RESOURCES
geographic space	vector and raster models • use appropriate model for a given geographic dataset	line, polygon) • Raster data model	vector data in a GIS • Visualising raster data in a GIS	• GIS software (QGIS, ILWIS, Arcmap, Arcview) • Computers • Braille material and equipment • Talking book • Hard copy Surveyor General maps
Georeferencing and spatial data capture	• georeference a scanned/ embossed hard copy map • capture spatial data from the map using on screen digitisation • produce a map layout from the captured vector data	• Georeferencing • Measurement of Georeference error [Root Mean Square Error(RMSE)] • Resampling • Digitisation and associated error	• Identifying ground control points • Georeferencing a scanned/embossed hard copy map in a GIS • Calculating georeferencing error using the RMSE • Resampling the	• Recommended textbooks • Scanner • Braille material and equipment • Talking book • GPS • GIS software (QGIS, ILWIS, Arcmap, Arcview) • Computers

TOPIC	OBJECTIVES Learners should be able to:	CONTENT	SUGGESTED NOTES AND ACTIVITIES	SUGGESTED RESOURCES
			georeferenced image • Digitising selected features • Producing a map layout in a GIS	• Hard copy Surveyor General maps

TOPIC 2: GEO-STATISTICAL ANALYSIS AND PRESENTATION

TOPIC	OBJECTIVES Learners should be able to:	CONTENT	SUGGESTED NOTES AND ACTIVITIES	SUGGESTED RESOURCES
Levels of measurement	• distinguish the levels of measurement • determine the range of statistical analyses	• Nominal data • Ordinal data • Interval data • Ratio data • Cyclic data • Statistical analyses that can be done on the data types	• Distinguishing the levels of measurement • Determining the range of statistical analyses that can be done on each data type	• Recommended textbooks • Scientific/talking calculators • Computers

TOPIC	OBJECTIVES Learners should be able to:	CONTENT	SUGGESTED NOTES AND ACTIVITIES	SUGGESTED RESOURCES
	that can be done on each data type			
Univariate statistics	• describe geographic data using simple univariate measures of central tendency • apply univariate statistics to solve geographic issues	• Mean • Median • Mode • Frequency • Quartiles • Standard deviation • Probability • Testing for normality • Hypotheses setting and testing	• Collecting geographic data in the field (e.g. temperature, rainfall and elevation) • Summarising the data using selected measures of central tendency • Testing hypotheses	• Recommended textbooks • Scientific/talking calculators • Computers • Statistical software [e.g., R software, JAWS software, Statistical Package for Social Scientists (SPSS), Statistica] • Braille material and equipment • Talking book
Bivariate	• describe	• Correlation (Spearman	• Collecting	• Recommended

TOPIC	OBJECTIVES Learners should be able to:	CONTENT	SUGGESTED NOTES AND ACTIVITIES	SUGGESTED RESOURCES
statistics	geographic data using bivariate statistics • apply bivariate statistics to solve geographic issues	and Pearson's Correlation) • Simple linear regression	geographic data in the field such as temperature, rainfall and population • Testing for correlation using relevant statistics • Performing a regression test using relevant statistics. • Describing geographic data associations based on the 2 statistical tests (correlation and regression)	textbooks • Scientific/talking calculators • Computers • Statistical software (e.g., R software, JAWS software SPSS, Statistica) • Braille material and equipment • Talking book • Graph paper • Local environment

TOPIC	OBJECTIVES Learners should be able to:	CONTENT	SUGGESTED NOTES AND ACTIVITIES	SUGGESTED RESOURCES
Graphs and maps	• present geographic data on graphs • present geographic data on maps • describe geographic data using other relevant diagrams	• Graphs such as histogram, bar graph, line graph, pie charts, scatter graph • Geographic diagrams such as choropleth maps, dot map, proportional circles, population pyramids • Map layouts	• Presenting geographic data using relevant graphs, diagrams or map • Interpret graphs and maps	• Recommended textbooks • Scientific/talking calculators • Computers • Statistical software (e.g., R software, JAWS software SPSS, Statistica) • Braille material and equipment • Talking book • Graph/embossed paper • Hard copy maps • GIS software (e.g., QGIS, ILWIS, Arcmap, Arcview)

TOPIC	OBJECTIVES Learners should be able to:	CONTENT	SUGGESTED NOTES AND ACTIVITIES	SUGGESTED RESOURCES
Research techniques	• Apply research techniques in solving geographical issues	• Research techniques – Problem identification – Hypothesis formulation – Data collection – Data presentation, analysis and hypothesis testing – Conclusion and recommendations	• Explaining research techniques • Applying research techniques in solving real geographic problems	• Talking books • Data collection tools • Local environments • Talking calculators • Resource persons • SPSS

TOPIC 3: ENVIRONMENTAL MANAGEMENT

TOPIC	OBJECTIVES Learners should be able to:	CONTENT	SUGGESTED NOTES AND ACTIVITIES	SUGGESTED RESOURCES
Environmental pollution	• describe environmental	• Environmental pollution	• carrying out a research in a	• Local environment

TOPIC	OBJECTIVES Learners should be able to:	CONTENT	SUGGESTED NOTES AND ACTIVITIES	SUGGESTED RESOURCES
and environmental degradation	pollution and degradation • identify types of environmental pollution and degradation	– Water – Land – Air – Sight/visual – Noise • Degradation – soil – land	polluted area • Contrasting types of pollution and degradation in urban and rural areas	• Recommended textbooks • Talking books • Print and electronic media showing polluted environments • Resource persons
Causes, effects and control measures of pollution	• Outline causes of environmental pollution • Identify effects of environmental pollution in rural and urban areas • evaluate mitigatory measures of pollution	• Environmental pollution – Causes – Effects – mitigation	• Describing causes and effects of pollution in their locality • Measuring levels of pollution of selected parameters such as temperature, pH, turbidity, E-coli • Evaluating control measures of pollution	• Local environment • Recommended textbooks • Print and electronic media showing polluted environments • Resource persons

TOPIC	OBJECTIVES Learners should be able to:	CONTENT	SUGGESTED NOTES AND ACTIVITIES	SUGGESTED RESOURCES
Causes, effects and control measures of environmental degradation	• outline causes of environmental degradation • identify effects of environmental degradation in rural and urban areas • evaluate mitigatory measures of degradation	• Environmental degradation – Causes – Effects – Mitigation • Indigenous knowledge systems (IKS)	• Describing causes and effects of degradation in their locality • Evaluating control measures of degradation • Adopting and reclaiming a degraded environment as a voluntary community project • Documenting and applying IKS in their locality	• Local environment • Recommended textbooks • Print and electronic media showing degraded environments • Talking books • Resource persons
Environmental Impact Assessment (EIA)	• Conduct an EIA of a development project in their local area •	• Stages of EIA • Scoping and screening • Identification of impacts • Mitigation measures	• Visiting the project area • Collecting relevant • Suggesting mitigatory measures • Preparation of EIA project	• Local environment • Resource person from EMA • EMA ACT 20: 27

TOPIC	OBJECTIVES Learners should be able to:	CONTENT	SUGGESTED NOTES AND ACTIVITIES	SUGGESTED RESOURCES
		• Environmental monitoring plan • Preparation of EIA document •		• Talking books
Environmental management projects	• Conduct an environmental management project in their local area	• Problem identification and justification • Project proposal • Monitoring and evaluation	• Conducting any one of the following projects in their local area: waste management/ land reclamation/ restoration • Compiling a project report	• Local environment • Print and electronic media showing polluted environments • Talking books

TOPIC 4: ATMOSPHERIC PROCESSES AND PHENOMENA

TOPIC	OBJECTIVES Learners should be able to:	CONTENT	SUGGESTED NOTES AND ACTIVITIES	SUGGESTED RESOURCES
Energy budgets	• differentiate diurnal from	• Variations in diurnal and	• Simulating solar radiation for day	• Recommended textbooks

TOPIC	OBJECTIVES Learners should be able to:	CONTENT	SUGGESTED NOTES AND ACTIVITIES	SUGGESTED RESOURCES
	nocturnal solar radiation for a given day	nocturnal solar radiation	time and night time in a given day	• Talking books • Torch or light bulb • The globe. • Oblique plastics
The Earth-Atmosphere energy budget	• illustrate heat transfer from areas of excess heat to areas of heat deficit. • explain methods of heat transfer from areas of excess to areas of deficit	• Global energy transfer – Vertical transfer – Lateral transfer	• Demarcating areas with heat excess from those with heat deficit • Outlining the methods of heat transfer	• Recommended textbooks • Talking books • The globe • Torch or light bulb
Weather processes and phenomena	• contrast atmospheric stability and instability to show different weather phenomena	• Atmospheric stability and instability – Theories of raindrop formation – Types of precipitatio	• Illustrating atmospheric stability and instability(ELR, DALR,SALR and FALR)	• Recommended textbooks • Talking books

TOPIC	OBJECTIVES Learners should be able to:	CONTENT	SUGGESTED NOTES AND ACTIVITIES	SUGGESTED RESOURCES
		n		
Air masses	• distinguish air masses according to their source regions • explain modification of air masses from source regions • examine the effects of air masses • explain weather associated with cyclones and anticyclones	• Characteristics of air masses • Modification of air masses • Effects of air masses • Air masses affecting Zimbabwe • Cyclones and anticyclones	• Identifying source regions of different air masses (Continental, maritime, polar) • Identifying surface pressure systems from remotely sensed data	• Recommended textbooks • Talking books • World map • Satellite images • Computer

TOPIC 5: GEOMORPHOLOGY

TOPIC	OBJECTIVES Learners should be able to:	CONTENT	SUGGESTED NOTES AND ACTIVITIES	SUGGESTED RESOURCES
Plate	• distinguish	• Constructive and	• Modelling fold	• Recommended

tectonics	features related to constructive and destructive plate boundaries	destructive plate boundaries • Tectonic processes and related features – Earthquakes – Vulcanicity – Folding – Faulting	mountains using the digital elevation model (DEM) • Simulating tectonic processes	textbooks • Talking books • Computer with GIS software like ArcView, QGIS • Animations
Rocks and weathering	• justify weathering types according to different climatic conditions • explain non climatic factors affecting weathering	• weathering types in different climatic conditions • non climatic factors affecting weathering – rock characteristics – relief – vegetation – human influence	• Illustrating weathering types on the Peltier diagram • Discussing non climatic factors affecting weathering • Identifying weathering types on exposed rocks	• Recommended textbooks • Talking books • Peltier diagram • Rock samples • Local environment
Slope development	• Identify different slope profiles • evaluate	• Factors affecting slope forms • Slope development processes	• Illustrating pediplanation, peneplanation, etchplanation	• Recommended textbooks • Talking books • Nearby stream/landforms

	processes of slope development		• Measuring slope angle, slope height	• Ranging rods, tape measure, • Clinometer • Hammer

TOPIC 6: HYDROLOGY AND FLUVIAL PROCESSES

TOPIC	OBJECTIVES Learners should be able to:	CONTENT	SUGGESTED NOTES AND ACTIVITIES	SUGGESTED RESOURCES
The drainage basin system	• analyse the drainage basin system • evaluate the sustainable management of ground water sources	• The drainage basin system – Inputs – Processes/flows – Outputs – Stores • Ground Water – Occurrence – Quantity and quality – Sustainable management of ground water	• Illustrating the drainage basin system • Testing ground water quality • Surveying ground water occurrence using IKS and scientific methods • Afforestation/reforestation of the drainage basin area	• Recommended Textbooks • Talking Books • Local rivers/Drainage basins • Water testing kit • Indigenous resources • Resource person • Indigenous tree seedlings such as Mitohwe/Uxak

TOPIC	OBJECTIVES Learners should be able to:	CONTENT	SUGGESTED NOTES AND ACTIVITIES	SUGGESTED RESOURCES
				uxaku
Rainfall-discharge Relationships within drainage basins	• analyse rainfall-discharge relationships within drainage basins • manage drainage basin	• Interpretation of storm hydrographs • Stream morphometry – Stream ordering – Stream density – Stream intensity	• Measuring various fluvial parameters NB: to be done under teacher supervision for safety and health • Drawing storm hydrographs • Hypotheses testing for relationships • Calculating stream morphometry	• Recommended Textbooks • Talking Books • Measuring instruments such as raingauge, river discharge gauging station MS Excel /Graph paper • SPSS • Ordinance survey maps • Cartwheel (measuring wheel) • GPS
River channel	• relate processes and landforms to	• river processes • River land forms	• Carrying out a Field work	• Recommended Textbooks

TOPIC	OBJECTIVES Learners should be able to:	CONTENT	SUGGESTED NOTES AND ACTIVITIES	SUGGESTED RESOURCES
processes and landforms	each section of the long profile • calculate channel efficiency of local streams	• Channel efficiency	• Drawing sketch sections and sketch maps • Measuring wetted perimeter • Calculating channel efficiency	• Talking Books • Zimbabwe digital elevation model (Zimdem) • Data recording sheets, pens, pencils, • measuring wheel • animations
Hydrological hazards and mitigation	• explain river flooding • identify effects of river flooding • assess mitigatory measures	• river flooding – causes – effects – control	• Developing and testing hypotheses on the occurrence of floods • Interpreting river regimes	• Recommended Textbooks • Talking Books • Computer such as MS Excel and SPSS software

TOPIC : 7 BIOGEOGRAPHY

TOPIC	OBJECTIVES L earners should be able to :	CONTENT	SUGGESTED NOTES AND ACTIVITIES	SUGGESTED RESOURCES
Factors affecting vegetation distribution	• explain factors affecting vegetation distribution	• factors affecting vegetation distribution	• Discussing factors affecting vegetation distribution	• Recommended textbooks • Their locality • Talking books
Plant succession	• outline sequence of plant succession • describe types of primary plant succession • explain secondary succession	• Prisere • Types of Primary succession • Secondary succession	• Conducting a study on secondary plant succession after a fire/ deforestation • Researching on primary succession such as lithosere	• Recommended textbooks • Their locality • Talking books
Biogeochemical cycles	• illustrate the carbon and nitrogen cycles • describe carbon and nitrogen cycles	• Biochemical cycles- carbon, nitrogen and oxygen	• Drawing the carbon and nitrogen cycles	• Recommended Textbooks • Local area • Electronic

Gerschmel diagram	• draw the Gerschmel diagram • identify the compartments of nutrients cycles • apply nutrients cycles to tropical biomes	• Gerschmel diagram of nutrients cycling – Compartments of nutrient cycles – Nutrients cycling in tropical biomes	• Assessing effects to changes of flows in the Gerschmel model in their local area	and print media showing different biomes
Biomass and biomes (tropical and temperate biomes)	• outline inputs of tropical biomes • identify the adaptation of tropical plants to their environment • explain the characteristics of each tropical biomes	• Tropical biomes: tropical rainforest/ hot desert/ savanna grassland/ temperate biome	• Studying the characteristics of a tropical grassland biome in their locality •	• Their locality • Recommend ed textbooks • Electronic and print media showing tropical biomes and wild life
Biodiversity (plant and animal diversity)	• describe the concept of biodiversity • measure plant diversity in their locality	• Biodiversity – Measurement of plant species: plant height, crown height and crown width	• Quadrant sampling • Measuring of plant characteristics • Presenting data on graphs • Analysing data	• Recommende d textbooks • Electronic media e.g. national geographic films showing tropical

				biomes • Tourism video clips e.g. of Serengeti
Plant and animal adaptation	• explain ways by which plants and animals adapt to climatic conditions in each biome	• Plant and animal adaptation to prevailing climatic conditions	• researching ways by which plants and animals adapt to climatic conditions in local environment • Drawing sketch diagrams showing structure of tropical biomes	• Recommended textbooks • Electronic and print media showing tropical biomes

TOPIC 8: POPULATION AND MIGRATION

TOPIC	OBJECTIVES L earners should be able to :	CONTENT	SUGGESTED NOTES AND ACTIVITIES	SUGGESTED RESOURCES
Population indicators	• calculate the indicators of population • assess the importance of population indicators	• Population Indicators such as : – Birth rate – Death rate – dependency	• Calculating Indicators of Population • Explaining factors affecting population indicators	• Talking Books • Scientific and talking calculators • Media • Resource persons such

			• Carrying out a survey on birth and death rates in the local community • Discussing the importance of population indicators	as from ZimStat, PSI • Local community
Population Growth	• explain the causes of population growth • assess the impact of population growth on development .	• Positive and Negative effects of population growth • Trends in Population growth [Demographic Transition Model (DTM)] • Determinants of economic development • Impact of population growth on development	• Discussing positive and negative effects of population growth. • Explaining the trends in population growth. • Debating the impact of population growth on development • Touring a resource strained	• Media • Talking books • ZimStat • Census reports • Educational tours

			community •	
Population Health and Diseases	• identify diseases that affect population. • outline the effects of diseases • explain scientific ways of combating diseases. • .assess indigenous ways of preventing and curing diseases	• Diseases that affect population – Cholera – Tuberculosis – Malaria – Ebola – HIV/AIDS – Cancer • Prevention and cure • Indigenous knowledge systems (IKS)	• Discussing causes of diseases • Discussing prevention and cure • Researching on prevalent diseases in the community Designing information material on diseases	• Talking Books • Ministry of Health and Child Care flyers, pamphlets and poster • Resource persons • Videos •

TOPIC 9: SETTLEMENT DYNAMICS

TOPIC	OBJECTIVES Learners should be able to :	CONTENT	SUGGESTED NOTES AND ACTIVITIES	SUGGESTED RESOURCES

Site and location of settlements	• identify factors influencing site and location of settlements • explain the site and location of settlements	• Site of settlements • Location of settlements	• Discussing factors affecting site and location of settlements • Assessing the suitability of the site and location of settlements in the local community • Planning the expansion of a local settlement • Visiting resettlement areas	• Media • Talking books • Local community • Maps
Settlement Hierarchy	• explain how settlements are classified • classify settlements according to their ranks • discuss settlement classification theories	• criteria for classifying settlements – population size – function • settlement classification theories – primacy – binary	• Visiting a local settlement to identify functions • Discussing characteristics of the settlement • Notes on classes of settlements according to population size – Village	• Local settlement • Talking books • Maps • Resource persons

		– rank size rule – nearest neighbour analysis	– Service centres – Growth point – Town – City – Conurbation	
Growth Points	• describe the concept of growth points • explain the reasons for establishing growth points • evaluate the growth point policy in Zimbabwe	• Growth Points • Reasons for establishing growth points • Rate of developments of growth points	• Identifying characteristics of growth points • Touring the local growth point to assess function, population and infrastructure • Initiating projects to accelerate growth using local resources • Proposing measures for future growth	• Talking books • Growth points • Ordinance maps • Growth point policy document
Land reform	• Explain the	• Land Reform	• Debating the	• Print Media

and resettlement	importance of land Reform programmes on settlement development	induced settlements in Zimbabwe – A1 settlements – A2 settlements	impact of land reform on settlement development • Touring a local resettlement farm to identify settlement patterns and services	• Resource persons • Talking books • Resettled areas
Functions of Rural and Urban Settlements	• Explain the functions of rural and urban settlements	• Rural and urban settlements	• Touring a rural or urban settlement to identify functions • Tabulating and presenting data on functions • Mapping settlement functions in a GIS/manually	• Local settlements • Talking books • GIS software • Hand held GPS receivers • computer

Rural- urban interaction	• describe rural- urban interaction	• Relationships between rural and urban settlements	• Discussing interrelationships between rural and urban settlements	• Talking books
Urbanisation and counter urbanisation	• outline causes of urbanisation and counter urbanisation • explain the impacts of urbanisation • evaluate solutions to urbanisation and counter urbanisation	• causes and effects of urbanisation and counter urbanisation • solutions to urbanisation and counter urbanisation	• planning possible expansion areas • evaluating the impact of urbanisation • Debating on solutions in urbanisation and counter urbanisation.	• Talking books • Local area

TOPIC 10: AGRICULTURAL PRODUCTION AND FOOD SECURITY

TOPIC	OBJECTIVES L earners	CONTENT	SUGGESTED NOTES AND ACTIVITIES	SUGGESTED RESOURCES

	should be able to :			
Factors affecting Agricultural Production	• identify the factors affecting agricultural production. • explain the factors affecting agricultural production.	• factors affecting agricultural production.	• Discussing factors affecting agricultural production.	• Talking books • Resource person
Agricultural Location	• describe the location of Agricultural activities. • explain theories of agricultural location • assess the applicability of theories of agricultural location.	• Agro-ecological regions • Theories of Agricultural location – Von Thunen	• Touring a local farming area to assess the applicability of agricultural theories.	• Resource person • Talking books • Local farmimg area

	•			
Farming systems in the Tropics	• identify farming systems in the Tropics. • describe the characteristics of farming systems. • explain the importance of the farming systems.	• Subsistence farming systems – Shifting cultivation – Pastoral nomadism – Communal farming • Commercial farming systems – Dairy farming – Horticulture – Cattle ranching – Plantation/estates • Major cereal crops – Maize/wheat/rice	• Touring of local farms and identifying activities at the farm. • Discussing characteristics of each farming system.	• Resource Person • Talking books • Local area

Green Revolution	• describe the techniques adopted to increase food production. • assess the success of the Green Revolution.	• Green Revolution – Biochemical changes – Mechanical changes – Socio-economic changes	• Discussing the Green Revolution techniques. • Debating on the success of the Green Revolution. • Demonstrating Green Revolution techniques.	• Talking books • Local area • Indigenous seeds • Media • Resource persons •

TOPIC 11: MINING AND MINERAL BENEFICIATION

TOPIC	OBJECTIVES Learners should be able to	CONTENT	SUGGESTED NOTES AND ACTIVITIES	SUGGESTED RESOURCES
Mining legislation and mining policies in Zimbabwe	• Outline the steps taken to gain mining rights of a claim • Summarise the main contents of each Act • Evaluate the effects of policies on mining.	• Mines and Minerals Act • Environmental Management Act • Minerals marketing corporation of Zimbabwe Act • Precious stones trade Act • Kimberly Process	• Explaining the process of acquiring a mine claim • Interpreting the Acts • Researching on the impacts of policies on mining	• Mines and Minerals Act • Environmental Management Act • Minerals marketing corporation of Zimbabwe Act • Precious stones trade Gold trade Act • Zimbabwe mining development corporation Act

Environmental Impact Assessment in mining	• analyse importance of EIA in mining projects • determine impacts of mining project on the environment • perform an EIA on a hypothetical mining project	• Importance of EIA • EIA process such as • Public consultation • Scoping and screening • Identification of impacts	• Discussing the impacts of EIA on mining • Carrying out an EIA on a mining project • Visiting a nearby mining area such as mineral panning sites, sand abstraction area to assess impacts on the environment	• Relevant software (e.g. Quantum GIS Arcmap and Arcview) • Computer • mining area such as mineral panning sites, sand abstraction area • EIA policy document • Resource persons
Prospecting methods	• Perform testing of samples of ores using different methods • Conclude on result of tests on samples	• IKS prospecting methods • Ultra violet prospecting • Geochemical testing • Geophysical testing	• Reflecting mineral presence using ultra violet light • Testing mineral ore physically and chemically	• metal detector • Moh's scale of hardness • hammer • mineral ore samples • Local environment • Resource persons

Mineralogy	• identify minerals that co-occur in Zimbabwe • describe physio-chemical properties of minerals	• Co-occurrence of minerals • Physio-chemical properties of the main minerals of Zimbabwe such as cleavage, colour, specific gravity, hardness	• Identifying minerals that co-occur • Examining the physio-chemical properties of minerals **<u>NB</u> Teachers should ensure safety of learners when using tools and chemicals**	• metal detector • Moh's scale of hardness • hammer • mineral ore samples • Local environment • Resource persons • Colour charts
Small and large scale mining enterprises	• draw up a proposal of a mining enterprise • assess the successes and failures of a mining project	• Mining business • Contribution of mining projects to the Zimbabwean economy	• Compiling a cost-benefit analysis of a mining project • Field work at a mine	• Mine • Resource person • Talking books

7.12 INDUSTRIAL DYNAMICS

TOPIC	OBJECTIVES Learners should be able to :	CONTENT	SUGGESTED NOTES AND ACTIVITIES	SUGGESTED RESOURCES
Industrial Location and Relocation in Zimbabwe	• describe the theories of industrial location. • assess the applicability of theories of industrial location in Zimbabwe.	• Theories of industrial location such as Weber • Industrial relocation in Zimbabwe	• Discussing theories of industrial location. • Debating the applicability of the theory • Discussing the reasons for relocation in Zimbabwe	• Talking books • Media • Local industries • Maps
Industrial Linkages and Agglomeration	• explain industrial linkages and agglomeration. • assess the importance of industrial linkages and agglomeration.	• Backward and Forward Linkages • Economies and Diseconomies of scale.	• Illustrating backward and forward linkages • Discussing importance of industrial linkages and agglomeration. • Touring of local industries	• Resource persons • Talking books • Local industry

Small and medium scale enterprise (SME) in Zimbabwe	• describe the nature of small and medium scale enterprise. • evaluate the importance of small and medium enterprise to the growth of the economy.	• Small and Medium enterprise • Contribution of SMEs to the growth of the economy.	• Touring local SMEs to capture their characteristics • Assessing the role of SMEs to the economy. •	• Videos • Resource persons • Talking books • SMEs
Hi- Tech Industries	• describe Hi-tech industries. • evaluate the importance of hi-tech industries to the economy of the country.	• Hi-Tech industries such as manufacturing of computers and related electrical gadgets.	• Discussing the location of hi-tech industries and their importance to the economy of the country. • Touring hi-tech industries.	• Resource persons • Talking books
Tourism Industry	• Explain the importance of tourism industry. • Describe trends in	• Importance of Tourism • Trends in Tourism • Local tourism	• Touring at least two major tourist centres • Discussing the importance of tourism.	• Talking books • Resource Persons • Tourist resort • ZTA maps

	tourism in Zimbabwe. • Investigate ways of improving tourist attractions in their local area		• Planning tourists developments • Suggesting ways of improving tourism infrastructure • Marketing of local tourist attractions • Developing tourist centres at schools	

TOPIC 13: ENERGY SOURCES AND DEVELOPMENT

TOPIC	OBJECTIVES Learners should be able to	CONTENT	SUGGESTED NOTES AND ACTIVITIES	SUGGESTED RESOURCES

Sources of energy in Zimbabwe: Actual and Potential	• identify actual and potential energy sources in Zimbabwe • explore opportunities for new energy sources	• Potential energy sources • Actual energy sources	• Locating areas with potential and actual sources using remote sensing • Assessing the need to explore potential energy sources	• Talking books • GIS tools • Remote sensing tools • Maps
Clean sources of energy (going green)	• analyse the environmental impact of using dirty sources of energy • identify gadgets that can be used for the generation of clean energy	• Clean sources of energy • Equipment used for generation	• Identifying sources of energy that are ideal for their areas • Demonstrating how the gadgets are used	• Solar energy equipment such as lanterns, solar panels, battery, regulators

Green energy generation	• draw up a proposal on green energy generation • devising gadgets that can be used for the generation of clean sources	• Project proposal • Equipment for generating clean energy	• Justifying the project proposal • Demonstrating the use of the devised equipment	• Recycled material • Biogas digester • Wind farm • Jatropha

TOPIC 14: Transport systems and trade

TOPIC	OBJECTIVES Learners should be able to	CONTENT	SUGGESTED NOTES AND ACTIVITIES	SUGGESTED RESOURCES

Distribution of transport systems and their purposes in Zimbabwe.	• explain the distribution of transport systems • assess the factors affecting the transport network • evaluate the impact of the nature of transport systems on development • calculate network indices to determine transport route characteristics	• Distribution of transport systems • Factors affecting transport network • Impact of transport systems • Transport network indices	• Mapping major transport routes of Zimbabwe • Examining the purposes of the patterns • Determining the traffic flows of local routes through traffic counts • Computing the transport indices such as beta index	• Talking books • Routes • Maps • GPS • GIS • Road maps
Transport enterprise	• draw up a project proposal of a transport business enterprise • design a road network to ease connectivity problems	• Transport business opportunities • Road network design enterprise	• Proposing transport enterprise project • Designing a road network to ease connectivity problems	• GIS • Road maps • Talking books

TOPIC 15: REGIONAL INEQUALITIES AND DEVELOPMENT

TOPIC	OBJECTIVES Learners should be able to	CONTENT	SUGGESTED NOTES AND ACTIVITIES	SUGGESTED RESOURCES
Indicators of economic development	• determine the level of development of the immediate local area using indicators of development • assess the advantages and disadvantages of each indicator	• Indicators of economic development • Advantages and disadvantages of each indicator	• Analysing the usefulness of each indicator • Carrying out an economic survey of their immediate local area	• Talking books • Local area • Resource persons • ZimStat reports • relevant journal

Regional inequalities	• describe regional inequalities • explain the causes of regional disparities • evaluate the solution to regional disparities • investigate regional disparities in Zimbabwe	• Regional inequalities – Zimbabwe – Africa – World • Causes of regional inequalities • Impact of regional disparities • Solutions to the regional disparities	• Explaining the core- periphery concept • Outlining the causes of Regional disparities • Surveying the regional disparities in Zimbabwe • Assessing the solutions to regional inequalities	• Talking books • Maps • Media •

FORM: 6 SYLLABUS

TOPIC 1: GEOGRAPHIC INFORMATION SYSTEMS AND REMOTE SENSING

TOPIC	OBJECTIVES Learners should be able to:	CONTENT	SUGGESTED NOTES AND ACTIVITIES	SUGGESTED RESOURCES
The remote sensing system	• Identify the importance of each component	• Components of the remote sensing system	• Illustrating the remote sensing system on	• Satellite images (free online)

TOPIC	OBJECTIVES Learners should be able to:	CONTENT	SUGGESTED NOTES AND ACTIVITIES	SUGGESTED RESOURCES
	of the remote sensing system in image acquisition • Predict the reflectance associated with key target material	(radiation, atmosphere, target, sensor and image) • Reflectance properties of selected target material (vegetation, bare ground, water and built surfaces)	diagrams • Identifying the reflectance associated with key target material such as vegetation, bare ground, water and built surfaces • Interpreting spectral signatures of target material	• Internet for downloading images • GIS software (QGIS, ILWIS, Arcmap, Arcview) • Computers • Ordinance survey maps
Image acquisition and structure	• Distinguish passive and active sensors • Identify image bands based on the electromagnetic spectrum • Distinguish image space and feature space	• Passive and active sensors • Multispectral scanners • Electromagnetic spectrum • Image space • Feature space	• Distinguishing passive and active sensors • Identifying bandwidths from selected multispectral scanners • Drawing the electromagnetic spectrum	• Satellite images (free on the internet) • Internet connection • GIS software (QGIS, ILWIS, Arcmap, Arcview) • Computers

TOPIC	OBJECTIVES Learners should be able to:	CONTENT	SUGGESTED NOTES AND ACTIVITIES	SUGGESTED RESOURCES
			• Distinguishing feature and image space	
Resolution	• distinguish spatial, temporal and spectral resolutions • select the ideal remote sensing data for specific analysis	• Resolution – Spatial resolution – Temporal resolution – Spectral resolution	• Explaining types of resolutions • Choosing the best remote sensing data to use in solving a given situation based on resolution	• Satellite data with different spatial, temporal and spectral resolution. • GIS software (QGIS, ILWIS, Arcmap, Arcview) • Computers • Surveyor General maps
Image interpretation	• apply the colour theory in visualising satellite images • visualise satellite images using selected colour composites • interpret images	• Colour theory and remote sensing images • Colour composites (natural, pseudo natural and false colour) • Interpretation	• Visualising satellite data using colour composites • Interpreting satellite data using image characteristics	• ease connectivity problems • Satellite image (free online). • Internet connection for downloading satellite images • GIS software (QGIS, ILWIS,

TOPIC	OBJECTIVES Learners should be able to:	CONTENT	SUGGESTED NOTES AND ACTIVITIES	SUGGESTED RESOURCES
	based on image characteristics	based on image characteristics (size, shape and context)		Arcmap, Arcview) • Computers • Talking books

TOPIC 2: GEO-STATISTICAL ANALYSIS AND PRESENTATION

TOPIC	OBJECTIVES Learners should be able to:	CONTENT	SUGGESTED NOTES AND ACTIVITIES	SUGGESTED RESOURCES
Spatial interpolation	• collect data on continuous geographic variables in the field • apply basic spatial interpolation techniques to describe continuous geographic phenomena	• Ordinary interpolation • Inverse Distance Weighting (IDW) interpolation	• Collecting data on continuous geographic variables in the field • Interpolating the data in class using ordinary interpolation • Interpolating the data in class using	• Talking books • Scientific calculators • Computers • Hard copy maps • GIS software such as QGIS, ILWIS, Arcmap, Arcview • Talking calculators

TOPIC	OBJECTIVES Learners should be able to:	CONTENT	SUGGESTED NOTES AND ACTIVITIES	SUGGESTED RESOURCES
			IDW ordinary interpolation	
Measures of Spatial Autocorrelation	• explain the importance of spatial autocorrelation in geographical analysis • apply relevant statistics to test for spatial autocorrelation	• spatial autocorrelation indices – Moran's I – Gearie's C • Importance of Spatial autocorrelation tests in Geographical analyses	• Collecting data on continuous geographic variables in the field • Testing for spatial autocorrelation using the Moran's I index • Testing for spatial autocorrelation using the Gearie's C index	• Talking books • Scientific calculators • Computers • Hard copy maps • GIS software such as QGIS, ILWIS, Arcmap, Arcview

TOPIC 3: ENVIRONMENTAL MANAGEMENT

TOPIC	OBJECTIVES Learners should be able to:	CONTENT	SUGGESTED NOTES AND ACTIVITIES	SUGGESTED RESOURCES
Environmental Impact Assessment	• conduct an EIA of a development project in their local area	• Stages of EIA • Scoping and screening • Identification of impact • Mitigation measures • Environmental monitoring plan • Preparation of EIA document	• Visiting the project area • Collecting relevant data • Suggesting mitigatory measures • Preparation of EIA project	• Local environment • Resource person from EMA • EMA Act 20:27 • Talking books
Environmental management projects	• conduct an environmental management project in their local area	• Problem identification and justification • Project proposal • Monitoring and evaluation	• Conducting any one of the following projects in their local area: waste management/ land reclamation/ reforestation	• Local environment • Print and electronic media showing polluted environments • Talking books

TOPIC	OBJECTIVES Learners should be able to:	CONTENT	SUGGESTED NOTES AND ACTIVITIES	SUGGESTED RESOURCES
			• Compiling a project report	

TOPIC 4: ATMOSPHERIC PROCESSES AND PHENOMENA

TOPIC	OBJECTIVES Learners should be able to:	CONTENT	SUGGESTED NOTES AND ACTIVITIES	SUGGESTED RESOURCES
Microclimates	• describe the development of microclimates • explain the effects of microclimates • compare temperature and rainfall in areas with microclimat	• microclimates such as urban heat island, land and sea breezes, forested areas	• Explaining the development of microclimates • discussing effects of microclimates • distinguishing temperature and rainfall in areas with microclimate and the adjacent area without	• Videos • climatic records of urban areas • SPSS • Talking books • Scientific and talking calculator

	e and the adjacent area without			
Climate Change	• explain the causes of climate change • discuss the effects climate change • evaluate climate change mitigation and adaptation measures	• Causes of climatic change – Natural climatic changes – Anthropogenic climatic changes(Global warming) * El Nino * La Nina • Effects of climate change • Climate change mitigation and adaptation	• describing causes of climate change • Discussing effects of El Nino and La Nina to Zimbabwe, Southern Africa and the World. • Analysing the effects of global warming • Assessing climate change mitigation and adaptation measures	• World atmospheric circulation map • Talking books • Local environment
Weather and	• explain the	• Weather and Climatic hazards	• discussing the	• Videos

climatic hazards and mitigation	causes of weather and climatic hazards • discuss the effects of weather and climatic hazards • assess the effectiveness of adaptation and mitigatory measures	– Drought – Floods – Tropical cyclones/tornados/hurricanes/ typhoon – Heatwaves • Causes and effects of weather and climatic hazards • Adaptation and mitigatory measures	causes and effects of weather and climatic hazards • Suggesting mitigatory measures to climatic hazards	• Talking books • Maps • Satellite images • Simulation models

TOPIC 5: GEOMORPHOLOGY

TOPIC	OBJECTIVES Learners should be able to:	CONTENT	SUGGESTED NOTES AND ACTIVITIES	SUGGESTED RESOURCES
Tropical landform development	• Discuss theories of inselberg formation • Explain landform development in	• theories of inselberg formation • karst landscape	• Discussing theories of inselberg formation • Describing landform formation in limestone landscapes	• Talking books • DEM i.e. Zimdem

	limestone regions • Identify characteristics of resultant landforms	• duricrust	• Sketching tropical landforms	
Hazards, Impact and mitigation	• explain the distribution of hazards resulting from mass movements • discuss the causes and effects of hazards resulting from mass movements • assess the effectiveness of mitigatory and adaptation measures	• hazards resulting from mass movements such as mud flows, landslides and rock falls • Causes • Effects • Mitigation	• Mapping/sketching the distribution of hazards resulting from mass movements • Discussing causes and effects of hazards resulting from mass movements • Evaluating mitigatory and adaptation measures	• Talking books • Maps • Satellite images • Media •

TOPIC 6: HYDROLOGY AND FLUVIAL PROCESSES

NB This topic was completed in Form 5

TOPIC 7: BIOGEOGRAPHY

TOPIC	OBJECTIVES Learners should be able to:	CONTENT	SUGGESTED NOTES AND ACTIVITIES	SUGGESTED RESOURCES
Soil forming factors, soil profiles and soil catena	• explain Jenny's formula of soil forming factors • conduct fieldwork on soil profiles • describe the soil catena	• Jenny's formula of soil forming factors • Soil catena	• Drawing soil profiles • Drawing a soil catena • Carrying out fieldwork on soil profile • Carrying out fieldwork on soil catena	• Their locality • Talking books
Measurement of soil characteristics	• sample soils • measure soil parameters • present data on graphs • analyse data	• Soil parameters: – Texture – Structure – pH – Moisture content – Organic content – Soil colour – Depth	• Collecting soil samples • Measuring soil parameters • Drawing graphs • Analysing data	• Their locality • Talking books • Soil sampling equipment and testing kit • Graph paper • Scientific calculator
Sustainable management of	• outline ways of conserving tropical biomes	• Management of ecosystems – Against commercial	• Establishing school woodlots • Forming an	• Resource persons from EMA, forestry

TOPIC	OBJECTIVES Learners should be able to:	CONTENT	SUGGESTED NOTES AND ACTIVITIES	SUGGESTED RESOURCES
ecosystems	• plant school woodlots • evaluate measures that have been used to conserve tropical ecosystems	logging – Against veld fires and poaching – Against human encroachment	environmental club • Forming fire-fighting committee • Keeping small wild animal species such as quail birds	commission, parks and wildlife management • local environment • Talking books

TOPIC 8 POPULATION AND MIGRATION

• TOPIC	• OBJECTIVES • Learners should be able to :	• CONTENT	• SUGGESTED NOTES AND ACTIVITIES	• SUGGESTED RESOURCES
Migration	• Explain the forms of migration • Describe the trends in migration.	• Types of migration • Migration Trends	• Debating on forms of migration • Discussing migration trends	• Talking books • Media • Maps • Animations

Patterns of Migration	• describe patterns of migration. • assess applicability of migration models.	• Patterns of Migration • Models of Migration	• Discussing patterns of migration. • Assessing applicability of migration models	• Talking books • Maps • Media
Causes and impact of Migration	• Describe the causes and impact of migration. • Evaluate the impact of migration.	• Causes of Migration • Impact of Migration	• Discussing the causes and impact of migration • Debating the effects of migration.	• Talking books • Maps • Media
Population Policies	• explain pro and anti-natalist theories with reference to relevant countries • outline population policies. • evaluate impact of population	• Pro and anti-natalist theories • Population Policies in countries such as : ➢ Zimbabwe ➢ China ➢ Sweden ➢ Germany • Impact of population policies	• Discussing Pro and anti-natalist theories • Discussing population policies of different countries. • Assessing impact of the population policies	• Talking books • Population policy documents • Media

	policies to the economies of countries.			

TOPIC SETTLEMENT DYNAMICS

• **TOPIC**	• **OBJECTIVES** • **Learners should be able to :**	• **CONTENT**	**SUGGESTED NOTES AND ACTIVITIES**	• **SUGGESTED RESOURCES**
Sphere of Influence	• Explain how the sphere of influence is determined. • Discuss the importance of spheres of influence • Delimit the sphere of influence	• Determining the sphere of Influence • Importance of the sphere of influence.	• Demonstrating spheres of influence. • Fieldwork on delimiting the sphere of influence of a local service centre • Discussing the importance of spheres of influence.	• Resource persons • Talking books • local service centre
Delimitation of the CBD	• Delineate the areal extent of	• CBD • Central	• Delineating the CBD.	• Maps • Talking books

	the CBD.	Business District Indices • Descriptive methods such as traffic lights, pedestrian and vehicle flows	• Fieldwork such as traffic lights, pedestrian and vehicle counts	• Local urban area
Rural and Urban Land use Planning	• identify planning techniques for rural and urban land use. • Apply the techniques of land use planning.	• Planning techniques • Aspects of Environmental design	• Planning land uses using GIS/maps • Designing Models of rural and urban areas.	• GIS software • Talking books • Maps

TOPIC 10 AGRICULTURAL PRODUCTION AND FOOD SECURITY

TOPIC	OBJECTIVES Learners should be able to :	CONTENT	SUGGESTED NOTES AND ACTIVITIES	SUGGESTED RESOURCES
Land Reform	• Explain the importance	• Land Reform Programme in Zimbabwe.	• Touring a local resettlement	• Media • Resource

and Food Security in Zimbabwe	of the need for land reform in Zimbabwe • Evaluate the contribution of land reform to food production	• Trends in food production since year 2000	area. • Discussing the contribution of land reform to food production.	Person • Resettlement area • ZimStat
Value addition and Agri-business	• Explain the forms and importance of agri-business • Explain forms of value addition in Agriculture • Assess the role of value addition in Agri-business.	• Forms of agri-business • Value addition in Agriculture	• Discussing forms and importance of agri-business • Discussing the importance of value addition in Agriculture. • Debating the role of value addition in Agriculture • Exhibiting value added products at Agricultural	• Media • Resource Person • Exhibition shows

			Exhibitions	
Climate change and other threats to food security	• Describe the threats to food security • Assess the impact of climate change to food security.	• Threats to food security : – Climate Change : – Global warming – Droughts – Floods – Pests and Diseases	• Researching on climate change • Discussing the impact of threats to food security.	• Videos • Media • Talking books
Responses to climatic change	• explain ways of increasing agricultural production in the face of climatic change	• Climate change mitigation – Indigenous crops – Conservation farming • post harvesting techniques	• Evaluating the mitigatory measures to climatic change • Growing appropriate indigenous crops to the region	•

TOPIC 11: MINING AND MINERAL BENEFICIATION

TOPIC	**OBJECTIVES Learners should be able to :**	**CONTENT**	**SUGGESTED NOTES AND ACTIVITIES**	**SUGGESTED RESOURCES**

Value addition and Beneficiation methods	• Describe different types of beneficiation processes • Separate sample mineral ores using different separation methods • Explain the value addition process of diamonds • Match separation methods to mineral ores	• Beneficiation methods: – Crushing and grinding; – drying, – Gravity separation, – Magnetic separation, floatation – Separation and smelting – Diamond cutting and polishing	• Identifying beneficiation methods • Adding value to sample mineral ores using different beneficiation	• Recommendation textbooks • Talking books • Mineral samples • Shakeable table • Separation chemicals
Marketing of minerals	• Outline the legislation governing mineral sale in Zimbabwe • Examine the procedure followed in	• Mineral marketing legislation • Sale of minerals within Zimbabwe • Exporting of processed minerals • Market research for minerals	• Compiling legislation documents governing mineral marketing • Carrying out a market research for a mineral of	• Recommended textbooks • Resource persons • Relevant legislation • Media • Talking books

	selling minerals in Zimbabwe • Determine the demand of a mineral		choice	
Safety and health in mining	• identify diseases related to mining • evaluate solutions to mining hazards • construct a model of safe shaft walls	• Diseases associated with mining • Mining hazards and mitigation • Safety and health project	• Researching on diseases associated with mining • Devising measures taken to reduce mining hazards • Designing safe mining rig model • Constructing a model of the internal mine support structures	• Recommended textbooks/ talking books • Relevant materials • Resource persons • Safety Health and Environmental (SHE) Policy • Occupational Safety Health and Management Systems (OSHAS)

TOPIC 12: INDUSTRIAL DYNAMICS

NB This topic was completed in Form 5

TOPIC 13: ENERGY SOURCES AND DEVELOPMENT

TOPIC	OBJECTIVES Learners should be able to	CONTENT	SUGGESTED NOTES AND ACTIVITIES	SUGGESTED RESOURCES
Global distribution of energy sources	• Describe the distribution of major sources of energy (like oil, uranium and coal) • Assess impact arising from the scarcity of oil and uranium • Analyse the changing patterns in energy uses	• Distribution of major sources of energy • Impact of unequal distribution of oil • Global changes in energy uses	• Researching on the distribution of major energy sources • Mapping areas of major energy source • Constructing graphs on trends •	• Energy conserving bulbs
Global trends in energy use	• Assess the use of clean energy sources • Discuss the	• International control of oil and uranium resources	• Evaluating the role of OPEC and United Nations in controlling oil and uranium respectively	• Talking books • Media • Maps

	factors affecting the trends in the use of energy • Assess the control of oil by OPEC and nuclear by the United Nation			
Sustainable management of energy sources	• Evaluate the ways of conserving energy reserves • Devise measures of sustainable use of energy	• Ways of conserving energy resources • Sustainable use of energy in Zimbabwe	• Designing an energy conserving device • Applying ways of conserving energy in their communities	• Talking books • Media • Maps • Energy saving device

TOPIC 14: TRANSPORT SYSTEMS AND TRADE

TOPIC	OBJECTIVES Learners should be	CONTENT	SUGGESTED NOTES AND ACTIVITIES	SUGGESTED RESOURCES

	able to			
Trade policies in Zimbabwe and their impact on trade	• Identify trade policies in Zimbabwean trade • Evaluate the impact of policies on trade	• Trade policies • Impact of the policies	• Examining different trade policies • Role play on the impacts of policies on traders	• Trade policy documents in Zimbabwe • Cheap Used products like cars, clothes and shoes • Mineral and agricultural produce samples • Imported goods such as cars, clothes, groceries • Imported goods such as cars, clothes, groceries • Local value added products such as baskets, mats • Animations • Talking books • Media Media Talking books
Current trends in Zimbabwean trade	• Distinguish forms of trade in Zimbabwe • Evaluate the factors influencing trade flows in Zimbabwe	• Cross border trade • Large scale trading • Inequalities in trading patterns	• Drawing up a cost-benefit analysis on environmental and socio-economic impacts of foreign cheap and used goods	

Global inequalities in trade flows and solutions	• identify major exports and imports of Zimbabwe • assess the effects of balance of trade of Zimbabwe on the economy • propose ways of improving balance of trade	• Imports and exports • Value addition and beneficiation • Balance of trade • Improving balance of trade	• Researching on imported goods and services at their school and immediate community • Devising methods of solving unfavourable balance of trade through value addition	•
Factors influencing global trade patterns	• explain factors influencing trade	• Factors influencing trade such as transport networks, trading blocks, ideology, consumption patterns and historical factors	• Describing factors that influence trade	

Trade opportunities in the local area	• design a trade enterprise project • defend the viability of a designed trade enterprise	• Trade enterprise • Cost-benefit analysis of a trade enterprise	• Drawing a cost-benefit analysis of a trade enterprise project • Justifying viability of a trade enterprise	

9.0 ASSESSMENT

(a) ASSESSMENT OBJECTIVES

Learners will be assessed on their ability to demonstrate:

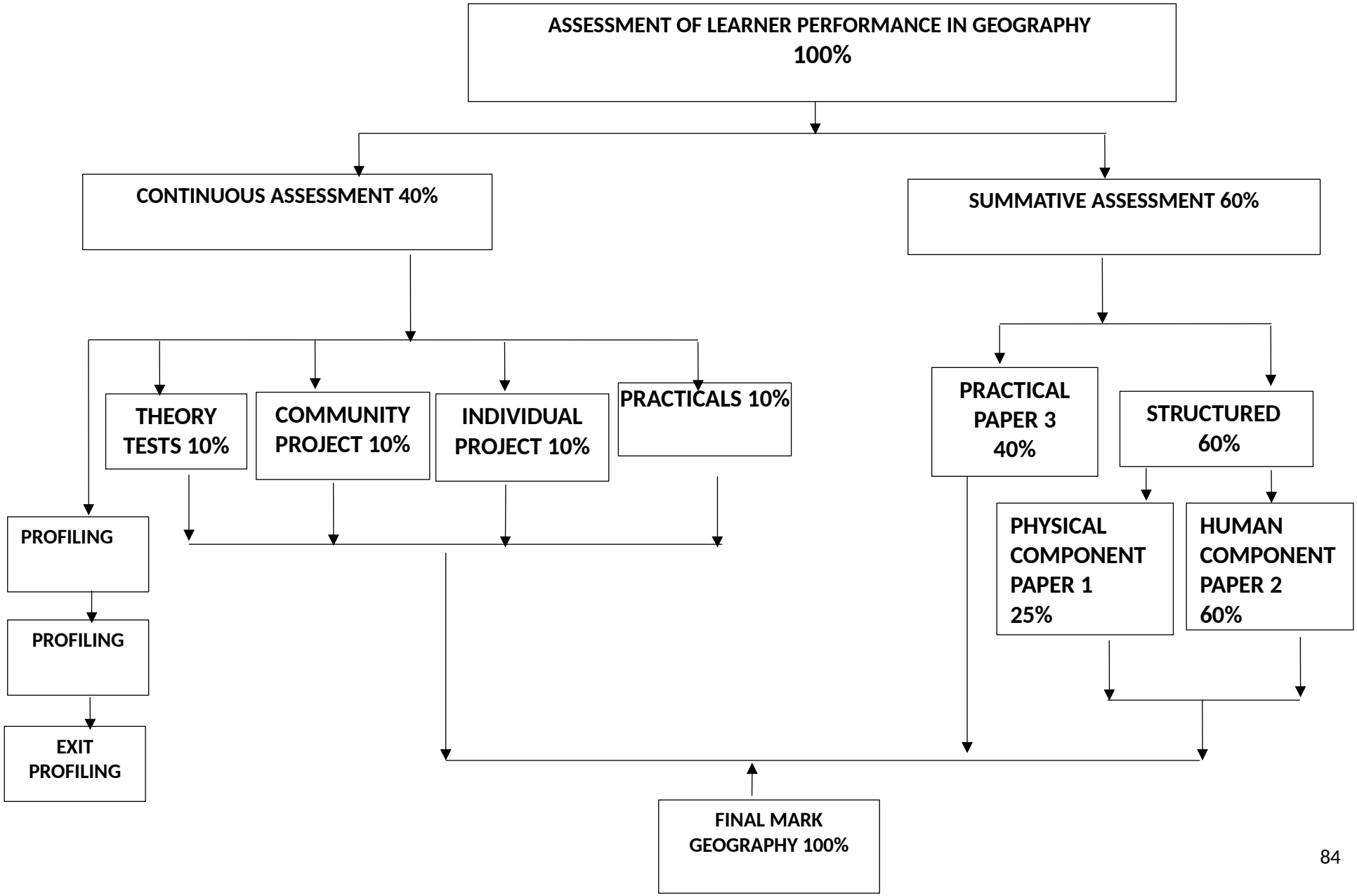
- Knowledge and understanding
  - Recall, recognize and use Geographical terms and definitions
  - of processes underlying physical and human landscapes and spatial patterns
  - how landscapes and patterns change
  - environmental inter-relationships
- Skills and their application
  - Comprehensive skills of observation, recording, interpretation and analysis
  - Use of Secondary sources of data

- Draw and interpret tables, graphs, charts and diagrams
- How to select, use and communicate information and conclusions effectively

- Judgement and decision making
  - The role of values, perceptions and decision making in evolution of patterns in human Geography
  - How to use Geographical principles and concepts in interpreting situations at various scales
  - How to prepare, justify and evaluate solutions to environmental and socio-economic problems
- Community engagement (Unhu/Ubuntu)
  - Ability to work in a group
  - Volunteerism and responsible citizenship
  - Innovativeness
  - Honesty and reliability
  - Integrity
  - Tolerance and mutual respect

(b) SCHEME OF ASSESSMENT

The assessment in Geography will be based on 40% continuous assessment and 60% summative assessment. .Arrangements, accommodation and modifications must be visible in both continuous and summative assessment to enable learners with special needs to access assessment and receive accurate performance measurement of their abilities.


ASSESSMENT OF LEARNER PERFORMANCE IN GEOGRAPHY
100%
CONTINUOUS ASSESSMENT 40%
SUMMATIVE ASSESSMENT 60%
THEORY TESTS 10%
COMMUNITY PROJECT 10%
INDIVIDUAL PROJECT 10%
PRACTICALS 10%
PRACTICAL PAPER 3 40%
STRUCTURED 60%
PHYSICAL COMPONENT PAPER 1 25%
HUMAN COMPONENT PAPER 2 60%
PROFILING
PROFILING
EXIT PROFILING
FINAL MARK GEOGRAPHY 100%

ASSESSMENT

ASSESSMENT COMPONENT	WEIGHTING
Continuous assessment	40%
Summative	60%

Continuous Assessment

ASSESSMENT MODE	FREQUENCY	FORM 5 WEIGHTING	FORM 6 WEIGHTING	TOTAL WEIGHTING
Individual Research project	1 per year	5%	5%	10%
Community project	1 per year	5%	5%	10%
Practical	1 per year	5%	5%	10%
theory tests	1 per term	5%	5%	10%

Candidates will design and carryout individual research project work on any part of the syllabus. The research project must emphasise both theoretical and practical aspects of Geography. A project report of 2 500 to 3000 words should be prepared and submitted by candidates.

Candidates are also required to participate in communal projects that solve prevailing community problems. These should demonstrate soft skills as inculcated in Hunhu/Ubuntu. Practical experiments in the field or in the laboratory will also form an integral part of continuous assessment.

Paper	**Paper type**	**Marks**	**Duration**	**Weighting**
1	Structured – free-response and data response on Physical components	100	3 hours	25%
2	Structured – free-response and data response on Human components	100	3 hours	25%
3	Practical	75	3 hours	10%
TOTAL		**275**	**9 hours**	**60%**

Summative Assessment

Description of papers

The examination will consist of 3 papers: paper 1, paper 2 and paper 3 which are all compulsory

Paper 1 Structured, physical component

Duration: three hours

The paper consists of 10 structured questions, each marked out of 25 to give a total of 100. Two question will be set per topic from which candidates will answer any four.

Paper 2: structured human component
Duration: Three hours

The paper consists of ten structured free-response and data-response questions. Each marked out of 25 to give a total of 100. Each topic will contribute at least one question. Candidates will answer any four.

Paper 3: Practical Paper
Duration: Three hours

The paper consists of seven questions. The paper will be based on experiments, investigations, observations and calculations. Full instructions will be given where unfamiliar material or techniques are required Section A will be a compulsory question on statistics Section B will have three questions on mapping and GIS from which candidate will choose one. GIS work on computers may be included. Section C will have three questions on research techniques from which candidates will answer one. Each question will be marked out of 25 to give a total of 75.

(c) SPECIFICATION GRID

Skill	Paper 1	Paper 2	Paper 3
Knowledge and comprehension	25%	25%	20%
Skills (including practical) and their Application	50%	50%	40%
Judgement and decision making	25%	25%	40%
TOTAL	**100%**	**100%**	**100%**

CONTENT SPECIFICATION GRID

Paper one

	Skill 1 knowledge with understanding	**Skill 2 Skills and their application**	**Skill 3 Judgement and decision making**	**Total questions**	**% Skill weighting**
Paper 1 Physical Component	25%	50%	25%	10	25%
Paper 2 Human component	25%	50%	25%	10	25%
Paper 3 Practical	20%	40%	40%	7	10%
Continuous assessment	20%	40%	40%		40%
	90	**180**	**130**		**400%**
Weighting	**22,5%**	**45%**	**32,5%**		**100%**

Paper Three

Content	**Number of questions**
Section A: Statistics	1
Section B: Mapping 2. Topographical Map 3. Geographic Information System (GIS) 4. Remote Sensing	 1 1 1
Section C: Research techniques 5. physical component 6. human component 7. mitigation and adaptation	 1 1 1
Total	**7**