

ZIMBABWE

MINISTRY OF PRIMARY AND SECONDARY EDUCATION

CURRICULUM DEVELOPMENT AND TECHNICAL SERVICES

GEOGRAPHY

SECONDARY SCHOOL LEVEL FORMS 1-6 2015-2022

TEACHER'S GUIDE

Curriculum Development Unit P.O.BOX MP133 Mount Pleasant Harare © All Rights Reserved Copyright 2015

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Organisation of the Teacher's Guide

It is important to you to constantly refer to critical documents to enhance your effectiveness and efficiency as a teacher

The Secondary School Forms 1-4 and forms 5 and 6 Geography Teacher's Guide is a document that has been prepared to assist you in understanding how to deliver the 2015-2022 curriculum with ease. This guide is divided into two parts. Part A of the guide focuses on the critical documents that you as the teacher must have in the course of curriculum delivery for Geography. Part B of the guide focuses on the curriculum delivery, that is curriculum content, objectives, methodology, instructional materials, class management and assessment.

A thorough study of this guide will assist you, the teacher, to have ideas on how to properly teach curriculum content on the 2015-2022 Secondary School Geography learning area syllabus. This guide makes it easy for you, the teacher to interpret the syllabus and prepare learning experiences for the learners'.

To enhance your understanding of the Geography learning area syllabus, it is very important that as a teacher, you read through the given guidelines thoroughly.

Aims of the Teacher's Guide

The Teacher's Guide aims to assist you (the teacher) to:

- interpret and translate the national syllabus into meaningful and functional school syllabi, schemes of work and record books
- appreciate the need to keep and maintain useful, comprehensive and up to date records
- have relevant teaching and learning resources in the delivery of your lessons
- acquire effective teaching methods suitable for Geography learning area and level of learners
- demonstrate skills of assessment in Geography
- cope with specific problem areas in Geography teaching
- design appropriate strategies for enhancing competencies
- the teacher should familiarise with cross cutting themes and how they can intergrated in the teaching and learning process

PART A:

CRITICAL DOCUMENTS

Introduction

The Primary and Secondary Education Curriculum 2015-2022 has been defined by a policy framework which outlines the mandate of the Ministry of Primary and Secondary Education. The teacher, as the implementer, ought to familiarise with documents that the Ministry has availed in order to develop an understanding of the new dimension the curriculum has taken. It is of paramount importance for you to embrace the changes that come with the curriculum. In this guide, critical documents that a teacher should have in order to develop an in-depth understanding of the curriculum content and underpinning philosophy are discussed.

RATIONALE

Geography in the secondary school curriculum will equip learners with skills to understand location, patterns and processes of phenomena. It is designed to make learners appreciate diversity, valuation, utilisation and conservation of resources. The learning area gives an opportunity to learners to manipulate geographical data and make informed decisions in their day to day experiences.

The geography syllabus enables learners to develop the following skills:

- Problem solving
- Critical thinking
- Decision making
- Communication
- Technology and innovation
- Graphicacy

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

Objectives

By the end of Part A of this guide, you as the teacher, should be able to

- identify critical documents in curriculum implementation
- describe the contents of each critical document
- interpret Secondary School 2015-2022 Geography syllabus

The Critical documents

As a teacher, it is important for you to know the critical documents that you must have in order to deliver the curriculum effectively in respect of Secondary School 2015-2022 Geography learning area. You must have the following documents:

- Curriculum Framework for Primary and Secondary Education (2015-2022)
- National Syllabus
- School syllabus
- Schemes of Work/Scheme Cum Plan
- Assessment Framework
- Lesson Plans
- Learner Profile Guide
- Progress Records (continuous assessment)
- Attendance Register

Unit 1:

Curriculum Framework for Zimbabwe Primary and Secondary Education

1.0 Introduction

The curriculum Framework for Primary and Secondary Education (2015-2022) was crafted to provide a medium to long term policy direction, to make improvements in the delivery of a home grown curriculum. It establishes a clear sequence of priorities that a teacher must study clearly to ensure that a return on investment made in education is optimised in terms of the results that matters the most, which are learner outcomes. This unit will give a brief outline of the Curriculum Framework and it is important that you read the full edition of the Framework to appreciate what is expected of you in the new curriculum.

1.1 Objectives

By the end of Unit 1 of this guide, you should be able to:

- Motivate learners to cherish their Zimbabwean identity and value their heritage, history and cultural traditions and preparing them for participatory citizenship
- Prepare learners for life and work in an indigenized economy and increasingly globalized and competitive environment
- Ensure learners demonstrate desirable literacy and numeracy skills including practical competences necessary for life
- Prepare and orient learners for participation in voluntary service and leadership

1.2 Key Elements

The Curriculum Framework for Primary and Secondary Education (2015-2022) contains the following key elements which you need to constantly refer to:

- Preamble
- Background
- Goals of the curriculum
- Learning areas
- Teaching and Learning methods
- Assessment and Learning
- Strategies for effective curriculum implementation.
- Principles and values guiding the curriculum
- The Future

1.3 Conclusion

It important for you as the facilitator of the teaching and learning process to have an in depth understanding of key elements of the curriculum framework so that you are continuously guided in your operations. An understanding of the curriculum framework also assist you in acquiring knowledge of areas of emphasis in the teaching and learning process of Geography.

Unit 2:

Syllabus Interpretation

2.0 Introduction

Teachers constitute the backbone of any education system and as such your ability to deliver effective lessons depends on careful planning. Planning begins with syllabus interpretation which forms the basis for:

- Development of school syllabus
- Development of scheme of work
- Development of lesson plan

They are two types of syllabi, i.e. the National Syllabus and the School Syllabus. Development of school syllabus involves re-organising the national syllabus, taking into account local factors. Schemes of work are derived from the school syllabus. The daily lesson plan is, in turn, derived from the scheme of work.

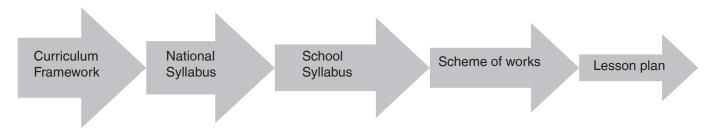


Figure 2: Chain development of critical documents.

Syllabus interpretation is based on the Curriculum Framework for Primary and Secondary Education 2015-2022, as the guiding policy document. Syllabus interpretation:

- is the process of making sense of the syllabus
- is about finding meaning of the syllabus.
- it is the process of unpacking the syllabus, analysing and synthesising it.

As a professional teacher, you need to be eloquent in syllabus interpretation. You therefore need to demonstrate this by how you scheme, plan and deliver the lesson during the teaching and learning process.

2.1 Reasons for Interpretation a Syllabus

Syllabuses in centralised education are developed at a centre, away from the user system (CDU). Syllabus interpretation helps you to share the same meaning with the developer. Syllabus interpretation attempts to put all syllabus users at the same level of understanding the syllabus execution.

- New syllabuses impose new demands on you regarding content, methods and assessment. You therefore need to understand these through syllabus interpretation.
- There always exists a gap between planned curriculum and implemented curriculum. Syllabus interpretation helps to narrow the gap.
- Syllabus interpretation prepares you for effective syllabus implementation.
- A way of communicating new information and new ideas to you.

When syllabus interpretation is well done, it gives confidence to you and you will be able to deliver with clarity as to what is expected from you.

2.2 How Do You Interpret the New Syllabus?

Syllabus interpretation focuses on the following:

- The national philosophy/vision as spelt out in the curriculum framework (the philosophy of unhu/ubuntu/vu munhu).
- The syllabus aims and objectives, what does the syllabus intend to achieve within the learners?
- The content, knowledge, skills and attitudes i.e. competences.
- Syllabus interpretation facilitates breaking down of content into teachable units. It focuses on:

- the nature and scope of the content
- organisation of the content
- the spiral approach of concepts, that is, the same topics taught at every level but gaining in breadth and depth as one goes up the higher grades.
- methods of delivery, which should encourage learner centred and hands on approaches, experimental learning and problem solving methods.

2.3 The Syllabus

It is important for you as a teacher to understand the syllabus. A syllabus is important documents to every teacher. It is a policy document that guides the teacher on how to execute his/her work. It is a plan that states exactly what learners should learn at school in a particular learning area. It is a major curriculum document which:

- prescribes what government would like to see you teaching in geography, as spelt out in the curriculum frame work
- outlines the experiences that learners should undergo in a particular course of study i.e. Form 1 − 4 and Form 5 and 6. It's a subject plan, providing guidance to you and learners a geography course outline or programme of study.
- it is an instrument in which you and learners can achieve the gains of the Curriculum Framework

You are required to teach from the syllabus and should not be guided by the textbooks. Note that assessment is based on the syllabus.

2.4 National Syllabus

It is a policy document that outlines and specifies the learning area philosophy, aims and objectives, Learning/teaching concepts and content, suggested methodology and assessment criteria at every level. As a teacher you should always have it and use it to guide you in your day to day teaching and learning activities.

2.4.1 Components of the Geography National Syllabus

To interpret the syllabus you need to identify its components and establish links between and among them. Components of the syllabus include;

- Cover page
- Acknowledgements
- Preamble
- Presentation of Syllabus
- Aims
- Syllabus Objectives
- Methodology and Time Allocation
- Topics
- Scope and Sequence
- Competency Matrix
- Assessment
- Glossary/Appendices

Cover page

This is the front cover of the syllabus that states the learning area and level. It also indicate the period the syllabus cover, e.g. 2015-2022.

i. Acknowledgements

This is the list of those who participated in the development of the syllabus. Names are not mentioned but the organisation that the members represented. Funders of the syllabus including experts or consultants are also acknowledged.

ii. Contents page

This lists the contents of the syllabus and page numbers.

2.4.1.1. Preamble

The preamble consists of introductory notes to the syllabus. It has five sub-titles.

- i. Introduction: Gives a brief insight into the learning area.
- ii. Rationale: This is a justification of why this particular learning area is included in the curriculum.
- iii. Summary of content: This is a summary of what should be learnt in the Geography learning area.
- iv. Assumptions: That is knowledge you assume learners already have to help them understand geography concepts.
- v. Cross cutting themes: These are emerging and contemporary issues that cut across all learning areas. You should find ways of incorporating them in the learning and teaching of Geography whenever possible. The following are relevant to Geography: ICT, Gender, Children rights and responsibilities, Disaster Disk Management, Financial literacy, Sexuality, HIV and AIDS education, Child protection, Human rights, Collaboration and Environmental issues
 - **NB** Not all cross-cutting themes can be applied in all Geography topics, some are more applicable to particular topics than others.

2.4.1.2. Presentation of the syllabus

This is a description of how the Geography syllabus is presented.

2.4.1.3. Aims

These are general statements of what the learning area intends to achieve (major outcomes). They are long term and therefore broad. They generally cover the whole learning area e.g. from form 1-4. They may differ from level to level for the same learning area e.g. form 1-4 and form 5 and 6 may have different aims. They cover all domains of Bloom's taxonomy and should carter for all learners (inclusivity).

2.4.1. 4. Syllabus objectives

These are specific competences of the learning areas and are derived from the aims. Geography learning area objectives are SMART (Specific, Measurable, Achievable, Result oriented and Time framed). These should also guide you in developing topic and lesson objectives.

2.4.1. 5. 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. They are guided by the curriculum framework's thrust i.e. skills or competence based, promoting critical thinking and problem solving.

Time allocation reflects the number of periods and their duration for the learning area. Time allocation reflects the number of periods and their duration for a particular learning area. Five (5) periods of 40 minutes per week for Form 1-4 and Ten (10) periods of 40 minutes per week for Form 5 and 6 should be allocated for adequate coverage of the syllabus. You should allocate time appropriately for learners with individual special education needs. It is your responsibility to plan for Edu-tours and Projects and time for this should be provided for within the school calendar.

2.4.1. 6. Topics

These are the main posts or pillars of the content for the levels given in itemised form. They form the core of the learning area. Topics are broken into sub-topics in the competence matrix. The topics for Geography Form 1-4 and Form 5 and 6 are as shown on the table below.

Table 1: Syllabi topics for Forms1-4 and Form 5 and 6

Form 1-4 Topics	Form 5 and 6 Topics
 Weather and Climate Landforms Ecosystems Natural resources Energy and Power Map work and Geographical Information systems Minerals and mining Environmental management Agriculture and land reform Industry Settlement and population Transport and trade 	 Geographic Information Systems and Remote Sensing Geo-statistical analysis and presentation Environmental management Atmospheric processes and phenomena Hydrology and fluvial processes Biogeography Geomorphology Settlement dynamics Population and migration Agricultural production and food security Industrial dynamics Mining and mineral beneficiation Energy sources and development Transport systems and trade Regional inequalities and development

2.4.1. 7. Scope and sequence

This shows you the depth and breadth of the content. Sequence refers to ordering of the information. Information is arranged according to logical ordering of the subject from the simple to difficult concepts. Generally, the same concept cuts across all levels differing in depth as children progress to higher levels. You should understand this Spiral approach for it helps you in developing the school syllabus as well as scheming and planning of your work. However, not all concepts cuts across. For instance a concepts may be covered in Form 1 only and will not appear in Form 2, 3 and 4 or it may be covered in Form 5 only and not in form 6. For example, settlement is covered in Form 1 and Form 2 only and in Form 3 and 4 they learners should be covering Population. The table below is an example of the Scope and Sequence for form 1-4.

Table 2: Scope and Sequence Sample

TOPIC 1: WEATHER AND CLIMATE

FORM 1	FORM 2	FORM 3	FORM 4	
 Weather elements and instruments Weather station Weather data Types of rainfall and distribution Weather forecasting 	 Weather hazards Influence of people on weather Climate of Zimbabwe Climate variability 	 Air masses Air masses affecting Zimbabwe and Southern Africa Climatic types on global scale; Interpretation of climatic data 	 Temperate depressions Frontal systems Tropical cyclones, People's influence on climate Climate change 	

2.4.1. 8. Competence matrix

It is a table that present to you the concepts/content to be taught or competencies to be acquired. It is developed from the scope and sequence. It includes topic, objectives, unit content, suggested learning activities and suggested resources. The table below indicates how the competence matrix is presented for you in the Form 1-4 syllabus.

Table 3: Complete Matrix
Topic 3: Weather and Climate

Topic	OBJECTIVES Learners should be able to:	CONTENT	SUGGESTED NOTES AND ACTIVITIES	SUGGESTED RESOURCES
Weather elements and instruments	 distinguish between weather and climate list elements of weather describe instruments used to measure weather elements read and record weather data 	 Differences between Weather and climate Weather elements Weather instruments Reading instruments and recording weather data 	differences between weather and climate Describing weather conditions they experience Matching elements to corresponding instruments	 School weather station Print media Electronic media Weather charts Timber Woodwork tools Resource persons Local environment Jaws software

2.4.1. 9. Assessment

This section gives you information on how the learning area will be assessed, the weighting and skills to be tested, types of questions and duration of each paper. It gives information on how the three forms of assessments namely; formative/continuous and summative will be conducted and the percentage allocated to each. It also includes information on profiling. This section also has assessment objectives, scheme of assessment, specification grid and assessment model.

The assessment in Geography will be based on 40% continuous assessment and 60% summative assessment for both form 1-4 and form 5 and 6 levels.

2.5 School Syllabus

This must be drawn from the National Syllabus by reorganising content taking into account local factors. The components of the School Syllabus are similar to the National Syllabus. The development of the Geography school syllabus should be a task for all teachers in the department and you should take part. You can re-organise topics in the National syllabus to fit your circumstances.

2.6 Conclusion

A comprehensive understanding of the syllabus is mandatory to you so that you facilitate learning and teaching process effectively for the achievement of syllabus objectives as well as learner competencies.

Unit 3

Schemes of Work

3.0 Schemes of Work/ Scheme cum Plans

This is a document that you as a teacher should draw from the national and school syllabus. The scheme of work outlines what you ought to execute on your day-to-day teaching and learning activities. The document should therefore be clear in terms of objectives, activities, content and methodologies to be employed. You should draw your scheme of work/scheme cum plans two weeks ahead of lesson delivery date. (Use of ICT in drawing the documents is encouraged). Note that at Secondary school, the scheme of work is optional but the scheme-cum plan is expected from you.

3.1 Components of the scheme Cum- plan

The scheme-cum plan has the following components which will help you to deliver with less challenges. The scheme-cum plan should have the following components:

- Week ending: which is usually fall on every Friday as the last day of the week. For example; 19 May 2017.
- Topic/ Content: This constitute the main concept to be covered. For example, Location of a weather station.
- Objectives: These are specific teaching objectives. Good objectives provide you with clear delivery focus, provide a means for assessing learner performance, and also allow for your self-evaluation. The rule for objectives is that they should be SMART.
- **Competences:** These are life-long qualities and skills you would want to see in your learners. They include critical thinking, problem solving, creativity, modelling, communication, collaboration, unhu/ubuntu/vumunhu, leadership and technological competences.
- Methods and Activities: Your golden rule is that learning and teaching methods and activities should be learner centred and should encourage learner creativity.
- Source of Material (SOM)/Reference/Media: This is an indication of where you are getting your content and the media you are likely to use.
- **Evaluation:** It is you looking back at how you have delivered; successes and challenges as well as learner performance.

Below is an example for a Geography Form 2 Scheme of Work on a particular topic.

Table 4: scheme-cum plan sample

Form 2 Scheme of Work: Weather station

AIM: To develop sustainable ways of combating effects of climate change.

	TOPIC/ CONTENT	OBJECTIVES By the end of the week learners should be able to:	COMPETENCIES	Methods and Activities	SOM / References/ Media	EVALUATION
19 May 2017	Location of a Weather station The Steven on screen	- identify the factors influencing the location of a weather station - Identify a suitable place to locate a Stevenson screen in their school design a model of a Stevenson Screen	- critical analy- sis - modelling	- Determining the suitability of the location of a school weather station - Explaining the character- istics of a Ste- venson screen - Making a Stevenson screen	- School weather station - Print media - Electronic media - Timber - Wood tech- nology tools - Resource persons - Local envi- ronment - Jaws soft- ware - Talking books	

3.2 Conclusion

You should always prepare the scheme well in advance, on average a week ahead but certainly not more than two weeks in advance. The scheme should not be a rigid document, you should be able to change it if you realize the need to do so. For example you may realize that they are better methods than you indicated or you have better aids.

Unit 4

Lesson Plans

4.0 Introduction

This is a detailed daily plan of what you intend to deliver during the lesson. This is to be used in the event of you having drawn a scheme of work rather than a scheme cum plan. Though lesson planning is most common at Infant and Junior school, you may use it if you want. However, you are encouraged to use the Scheme-plan when teaching Geography.

4.1 Components of a Geography Lesson

The following are key elements of a lesson plan. However, you should not make this as a blue print for all lesson plans. Lesson plans can be craft according to the demands of the lesson and your prevailing circumstances. Components of a lesson plan include:

Date: This is the date on which the lesson is to be delivered.

Time: The time allocation for the lesson period

Topic: The topic from which the lesson is derived, as indicated on the school syllabus.

Class: Is the class level to which the lesson is being delivered to

Sources of Materials/ Instructional Media: This is a catalogue of the source from which you get the teaching and learning materials. It also include the media which you will use to deliver.

Assumed Knowledge: This is what you assume learners already know, either from previous classes or from experiences. The assumed knowledge becomes the basis for your lesson delivery.

Objectives: These are lesson objectives, what you should achieve after the teaching and learning of the lesson topic

Competences: These are skills and attitudes you need to build through the teaching and learning of the lesson concept.

Lesson: This gives the detailed stage-by-stage development of the lesson. How you will deliver the lesson.

Tasks: This is the work you give to learners as part of assessment. Tasks can be in a variety of forms. They can be simple written excises, research, assignments, projects or field work. The tasks should measure how far you have achieved the lesson objectives and competences or should help to achieve the lesson objectives or competences.

Evaluation: It is making a judgement about how you have delivered the lesson. You should focus on areas such as your teaching methodologies, resources used, participation of learners and extent of objective achievement.

A sample of a Lesson plan

DATE: 17 May 2017
TIME: 8:00 to 8:40
LEARNING AREA: Geography

TOPIC: The Stevenson screen

CLASS: Form 1A SOURCES OF MATERIALS/ INSTRUCTIONAL MEDIA

National and School syllabuses ; Schemes of work; School weather station; Video showing a Stevenson screen; Model of a Stevenson screen; Timber; Wood technology tools; Local environment; Jaws software

Textbooks: Best Approach in Geography Form 1 unit 1, page 20

ASSUMED KNOWLEDGE:

The learners have previous knowledge from primary modules on weather elements

OBJECTIVES

By the end of the lesson learners should be able to:

- Describe the main features of a Stevenson screen
- Explain the features of a Stevenson screen
- Design a model of a Stevenson screen

Competences

- critical analysis
- designing and modelling

INTRODUCTION:

Learners are asked to mention different weather instruments they know and briefly describe how each look like. (3 minutes)

LESSON DEVELOPMENT

STAGE	ACTIVITIES	Time-Minutes
STAGE 1	The learners are asked to discuss in groups where they think each instrument they mentioned in the introduction are kept.	5
STAGE 2	 Learners watch a video clip showing the Stevenson screen and instruments that are kept in it. Learners identify and discus the importance of the main features of the screen and write them down. 	15
STAGE 3	Learners draw model plans for the Stevenson screen.	10

CONCLUSION

The teacher show again the video and learners compare their models with the video images of the Stevenson screen (8)

Task

Learners to make real model of a Stevenson screen in groups of five.

EVALUATION

Learners were able to:

- Describe the main features of a Stevenson screen
- Explain the features of a Stevenson screen, however Emilly and Sipho had challenges in explaining the double roof of the screen.
- Nyasha and Tinotenda had excellent model plans for the screen

4.2 Conclusion

A lesson plan is critical in guiding you as a teacher on how to execute your lesson. It is also prepared for each class, considering the special needs of your learners. The identification of strength, weakness and suggestion of way forward for each lesson and each individual learner is important. This will help you on remedial as well as in preparing the next lesson.

UNIT 5

RECORD - KEEPING

5.0 Introduction

Records are critical documents about teaching-learning process which you must keep as a teacher. They should be accurate and up to date. They must be kept safely so that the next teacher to take that class when you are absent or you have transfer will be well and correctly informed. The following are some of the reasons why you should keep records:

- Records helps guide you on your day-to-day operations
- Help you to track learner's performance
- Planning and re-adjustment of plans
- Source documents for reference
- Basis profiling
- Basis for counselling

5.1 Types of Records

You are expected to keep the following documents:

- Curriculum Framework for Primary and Secondary Education 2015-2016
- Syllabuses (National and School)
- Schemes of work, lesson plans/scheme cum plans
- Class attendance register
- Teacher's Guide
- Social record
- Progress record
- Asset and stock control registers
- Circulars

5.1.1 Learner Profiles

Profile assessment is a quality assessment tool designed for a variety of learners to determine their strengths and identify areas of improvement. As a teacher, you should carry out profiling to track learner behaviour, knowledge, attitudes, aptitudes, skills, values and performances on an on-going basis. This assessment informs teaching and learning process and contributes to learner profile.

5.1.2 Progress Record

You should have a progress record to capture learner performances. This includes progress records of:

- Theory test
- Practical test
- Project test and
- Any other test that you think are important in assessing learner performance.

The progress record also include continuous assessment records. The template on how to record continuous assessment will be provided to the school by ZIMSEC.

5.1.3 Attendance Register

This is a critical document you should have as a teacher to track and record your learner's class or lesson attendance. The attendance register should be up-dated daily. Registers are usually provided by the school but you can as well design a class register, with all the critical information.

5.2 Conclusion

All these documents are equally important and you should administer them honestly and constantly. They should also be readily available for supervision. Records should be accurate and constantly be up-dated. You should also keep them safely, always, with a back-up.

PART B

Unit 6:

Curriculum Delivery

6.0 Introduction

Secondary School Geography is a science learning area designed 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 response to challenges by developing solutions and skills leading to sustainable development. You as a teacher should be able to help the learner to achieve the aims and objectives of the syllabus.

6.1 RATIONALE

Geography in the secondary school curriculum will equip learners with scientific skills to understand location, patterns and processes of phenomena. It is designed to make learners appreciate diversity, valuation, utilisation and conservation of resources. The learning area gives an opportunity to learners to manipulate geographical data and make informed decisions in their day to day experiences. Geography learning area will equip learners with skills to comprehend spatial distribution patterns, processes and interactions of phenomena.

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

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 to the whole of Zimbabwe, Southern African Development Community region, the 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.

6.2 Syllabus objectives

Syllabus and learning objectives should be SMART. They are more specific statements that include both an action verb and a content reference. They should provide a clear statement of intended learning goals and learner learning outcomes.

Objectives should answer questions such as:

- What do you want your learners to learn? (What are the learning outcomes which you expect from the learning and teaching process?)
- What assignments, classroom activities, and pedagogical approaches will help your learner acquire the identified knowledge, skills, or attitude changes (competences)?
- How will you determine that learners have accomplished what you set out to teach them? (How will you evaluate their achievements?)

6.3 Methodology

As a teacher it is important for you to use problem-solving and learner-centred approaches. You are the facilitator and the learner is the doer. Minimize methods that encourage wrought learning and encourage those that encourage the curriculum competences. Methods you use should help learner's development (cognitive, affective and psychomotor).

6.3.1 Suggested Methodologies

The approach to Geography in this curriculum is scientific, therefore select appropriate science teaching methods for your lessons and use a variety of learner-centred approaches. The following are suggested methods of teaching and learning geography: Demonstrations, Field work, Games, Simulations, Debates, Laboratory work and experiments, Group work and discussions, Role-play, Case studies, Project based learning and Educational tours.

Choice of method is influenced by your personality, content to be covered, competencies to be developed, availability of resources and objectives you need to achieve. It is important for you as a teacher to be innovative in choice of methods and resources to use for each particular lesson. Use of a variety of methods spices the learning process and motivate learner participation hence easy of objective achievement.

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.

The focus of your methodology should always place "learner at the centre". Make learning process exciting through choice of good teaching methods.

6.4 Class Management

This is the process of planning, organising, leading and controlling class activities to facilitate effective and efficient learning. This should help you to create an effective learning environment, motivate the learners, maintain class discipline and supervise class activities.

6.4.1 Organisational Skills for Effective Learning

Classroom organisation is critical for conducive learning environment. Classroom management covers: physical environment, emotional environment, grouping the learners, class control and discipline and supervision.

6.4.2 Physical Environment

- The classroom should be clean, tidy and airy
- Consider safe furniture arrangement which also encourage interactive learning.
- Teaching aids should be visible to learners and should also be clear. As a teacher, it's your responsibility to
 ensure learner safety during learning.

6.4.3 Emotional Environment

While learning is learner- centred, you remain in control to direct effective learning. You should therefore be firm, warm and pleasant, set the right tone and tell learners what behaviour you expect.

6.4.4 Grouping

Learners may be grouped according to needs, abilities, problems but not sex

Promote sharing of ideas among learners. Whatever way you use to group learners, it should not disadvantage the learner but rather motivate learner to feel being part of the learning process.

6.4.5 Class Control and Discipline

Know the government and schools policy on discipline. You should be firm and fair. Punishment should be corrective and constructive. Acknowledge good behaviour and reward it wherever possible. Aim for intrinsic discipline. Create an atmosphere of trust and honesty within your class.

6.4.6 Motivation

Make learners feel important and capable of making it. Create in learners the feeling that learning is easy and enjoyable. Focus on the strength of individual learners and build on that. Recognise and reward attempts to do good work. As a teacher, know that your learners look forward and emulate you, so be a role model in terms of your demeanour.

6.4.7 Supervision

Check learners` work in order to guide and correct them. Areas that require supervision include practical work (including laboratory work), written work, discussions, group work and field trips. Outcomes of supervision will also help you on learner profiling.

6.5 Teaching-learning Materials

Instructional materials are the tools you should use during learning and teaching process. Any resource you can use as a medium for the delivery of content, helping in achieving learning objectives should be an effective instructional material.

6.5.1 Importance of Teaching-learning Materials

Instructional aids help learners to learn better and faster. If you carefully choose and use them. They also:

- capture learners` interest and create virtual reality.
- promote meaningful communication, hence effective learning.
- ensure better retention, thus making learning more permanent.
- provide direct or first-hand experience with the realities of the social and physical environment.
- help overcome the limitations of the classroom
- stimulate and motivate students to learn.
- help develop interests in other areas of learning.
- encourage active participation, especially if learners are allowed to manipulate materials used.

6.5.2 Types of Teaching-learning Materials

6.5.2.1 Visual materials

Three dimensional materials

- Objects: Real things-e.g. Jars, cooking utensils etc.
- Models: Are recognisable representation of a real thing
- **Specimens:** Are objects which are representative of a group or a class of similar objects e.g. flowers, fish, frogs etc.
- Printed materials: Textbooks, Workbooks, Handbooks and Modules
- Chalkboards
- Flannel or felt boards
- Bulletin boards
- Still pictures: Non-projected (photographs, illustrations) and Projected (slides, filmstrips, overhead projectors)
- Graphics: Charts, Graphs, Maps and Globes, Posters and diagrams.
- Audio Aids: Radio and Recorded audio

6.5.2.2 Audio-Visual Teaching-learning Materials

Motion pictures such as Television and video clips

6.6 Evaluation

There is need to measure your success in terms of teaching and learner performance. Evaluation should provide you with feedback on the acquisition of knowledge, skills and attitudes by learners.

6.6.1 Evaluation and assessment

In evaluation and assessment you should consider:

- How do we check whether indeed learners are benefiting from the syllabus implementation?
- Are the objectives being met?

Evaluation/assessment can be in the form of exercises, tests, projects, group tasks. There are two main types of evaluation:

- Formative evaluation on-going/ continuous; Continuous assessment is a major innovation in the new curriculum.
- Summative evaluation; coming at the end of the course, terminal.

6.7 Methods of Evaluation

- Tests and exercises
- Projects
- Research
- Examinations
- Assignments

6.8 Conclusion

Classroom management during learning process always help you to achieve the best. It is important for you to know all your learners by name and also understand their backgrounds.

Educational research has it that learners remember only 10% of what they have read, about 20% of what they hear and about 50% of what they hear and see an only 20% of what they touch or manipulate.

You should therefore select appropriate instructional aids, make good quality aids from available resources, use instructional aids effectively and design meaningful and effective instructional aids.

You should evaluate both your work and that of the learners. Identify the essential evaluation methods that you can use. Monitoring and evaluation of your work and learners' work should be done constantly.

Unit 7:

Scope of the Guide

7.0 Introduction

The geography syllabi has 11 topics for forms 1-4 and 15 topics for forms 5 and 6

Table 5: Topics

FORM 1-4	FORM 5 & 6
 Weather and Climate Landforms Ecosystems Natural resources Energy and Power Map work and Geographical Information systems Minerals and mining Environmental management Agriculture and land reform Industry Settlement and population Transport and trade 	 Geographic Information Systems and Remote Sensing Geo-statistical analysis and presentation Environmental management Atmospheric processes and phenomena Hydrology and fluvial processes Biogeography Geomorphology Settlement dynamics Population and migration Agricultural production and food security Industrial dynamics Mining and mineral beneficiation Energy sources and development Transport systems and trade Regional inequalities and development

7.1 Teaching Units

Any of the topics listed are broad for coverage, it is therefore your responsibility to break the topic into small teachable units. The teachable units are determined by the objectives you need to achieve. Each topic has clear objectives you should achieve and hence formulation of the teachable units. Teaching methodology should be developed around the objectives. For example, when you are teaching the topic, Geographic Information Systems and Remote Sensing at Form 5. This topic is generally a broad topic that has a lot to be covered. The syllabus should therefore guide you on what exactly need to be covered under this topic (because certainly not all about GIS and Remote Sensing must be covered). This is how you can break it to teachable unit:

These are the actual concepts which you need to cover under the topic Geographic Information Systems and Remote Sensing, which are in away, your teaching units:

- Coordinates and coordinate systems
- Map Projection
- Global Positioning Systems
- Conceptual models of geographic space
- Georeferencing and spatial data capture

However, these can also be further broken into even smaller lesson units. Lets take Coordinates and coordinate systems and further break it to lesson unit. Under it, you will focus on:

- Geographic coordinates
- Plane coordinates
- Polar coordinates
- Universal Transverse Mercator (UTM) coordinate system

Each of these smaller teachable units can be timed, resources to lesson set aside or be prepared and methods and activities be prepared. All these should be helpful in assisting achievement of lesson objectives and the expected competences. The table below summarises how you can break broach topics into small teachable units.

Table 6: Breaking topics into teachable units sample

TOPIC	CONCEPT	OBJECTIVES	ACTIVITIES	RESOURCES	COMPETENCES	ASSESSEMENT
	S (TEACHABLE UNITS)				TO BE ACHIEVED	
Coordin ates and coordina te systems	Geographic coordinates	locate features geographic coordinates describe and use Geographic coordinates	Identifying geographi c coordinate on both digital and hard copy maps	Recomme nded textbooks GIS software (QGIS, ILWIS, Arcmap, Arcview) Computers Hard copy Surveyor General maps	Communication and investigation Graphicacy and numeracy Cartography Critical thinking Technology and innovation Problem solving Decision making	Practical continuous assessment
	Plane coordinates	locate features using plane coordinate describe and use plane coordinates	Identifying plane coordinate on both digital and hard copy maps	Recomme nded textbooks GIS software (QGIS, ILWIS, Arcmap, Arcview) Computers Hard copy Surveyor General maps		
	Polar coordinates	locate features using polar coordinate describe and use polar coordinates	Identifying polar coordinate on both digital and hard copy maps	Recomme nded textbooks GIS software (QGIS, ILWIS, Arcmap, Arcview) Computers Hard copy Surveyor General maps		
	Universal Transverse Mercator (UTM) coordinate system	locate features using UTM describe and use UTM coordinates	Identifying UTM coordinate on both digital and hard copy maps	Recomme nded textbooks GIS software (QGIS, ILWIS, Arcmap, Arcview) Computers Hard copy Surveyor General maps		

7.2 Conclusion

We hope this guide will be helpful in assisting you to deliver in the Geography learning area. Geography learning area has a lot more new components that you may have not experienced. This is due to the scientific approach that the learning area has been configured to. Areas such as Minerals and Mining (Mineral beneficiation), Geographic Information Systems and Remote Sensing, Geo-statistical analysis and presentation and Environmental Impact Assessment require you to up-date yourself in terms content through research and capacity development for you to deliver with confidence. You also need to understand that the delivery of Geography now require science laboratories, computers and some softwares.

The following are important key notes to remember:

- interpret the syllabuses correctly
- use teaching methods appropriate to the learning area
- prepare engaging and appropriate teaching aids
- design appropriate strategies for problem solving
- manage your class effectively
- be resourceful
- draw up and maintain comprehensive records
- guide learners to study effectively on their own
- objectively evaluate your own teaching and the learners` progress
- acquire teaching techniques