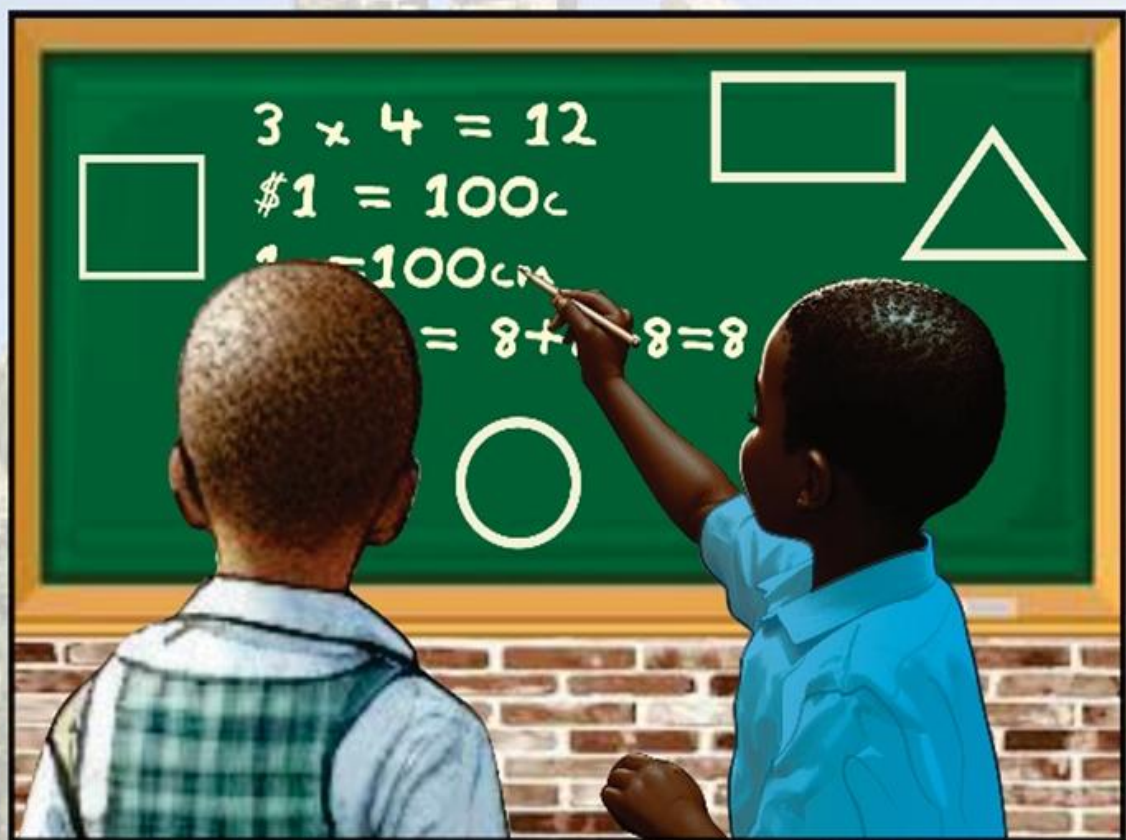




ZIMBABWE

Ministry of Primary and Secondary Education



INFANT MATHEMATICS SYLLABUS

2024 -2030

ECD A - GRADE 2

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1 PREAMBLE

1.1 Introduction

The Infant Mathematics syllabus is designed to enable a smooth transition of learners from Infant to Junior School Module. The infant learning phase seeks to give learners an appreciation of Mathematics, and equip them with life skills through discovery and problem solving. The syllabus involves foundational numeracy learnt through practical activities. Assessment will be done through School Based Continuous Assessment (SBCA) and Summative Assessment (SA).

1.2 Rationale

The syllabus aims to set an early exposure to mathematical concepts, such as numbers, patterns and spatial awareness. It fosters critical thinking, problem solving, decision making, logical reasoning and social interaction among learners. A solid grasp of foundational numeracy will support future academic success, including a firm understanding of Science, Technology, Engineering and Mathematics (STEM) disciplines. The syllabus helps pupils to develop a positive attitude towards learning, setting the stage for acquisition of lifelong skills.

1.3 Summary of content

This Mathematics syllabus is designed to cover four years of Infant education forming the foundation for Junior School Module. The learners will be exposed to mathematical language through identifying, classifying, comparing, numbering, ordering and measuring of objects. The syllabus will enable learners to manipulate objects and interact with their environment. Topics to be covered are Number, Operations, Measures and Relationships.

1.4 Assumptions

It is assumed that the learners:

- can identify objects in their environment
- manipulate objects
- appreciate relationships and collaboration
- participate in team work
- think critically

1.5 Cross-cutting themes

Mathematics learning will encompass and have a universal thrust on the following cross-cutting themes:

1.5.1 Financial literacy

1.5.2 Collaboration

1.5.3 Health and well being

1.5.4 Climate Change

1.5.5 ICT

1.5.6 Business Enterprise and entrepreneurship

1.5.7 Heritage Issues

1.5.8 Gender

1.5.9 Environmental issues

1.5.10 Disaster Risk Management

1.5.11 Children's Rights and Responsibilities

2 PRESENTATION OF THE SYLLABUS

The Infant School Mathematics syllabus is a single document. It constitutes Preamble, Aims, Objectives, Topics, Scope and Sequence, Competency matrix and Assessment. The scope and sequence chart shows the progression of topics from ECD A to Grade 2. The competency matrix shows the breadth and depth of content to be covered. Inclusive in this syllabus, is a list of resources to be used during teaching and learning.

3 AIMS

The Infant School Mathematics syllabus aims to:

- develop, in learners, a positive attitude towards Mathematics;
- foster into learners mathematical problem-solving skills;
- use/sign and communicate mathematical information to develop critical thinking;
- acquire mathematical concepts and skills for use as tools in life; and
- develop psycho-social skills such as self-control and free expression of emotions which contribute to the holistic development of the learner.

4 SYLLABUS OBJECTIVES

Learners will be able to:

- Apply mathematical terms
- Carry out calculations accurately
- Estimate, approximate and measure to an appropriate degree of accuracy
- Demonstrate a positive attitude towards mathematics and an inclusion of (indigenous knowledge systems (IKS) into mathematics

- Interpret and apply mathematics in real life situations
- Explore mathematical ideas and come up with conclusions and innovations
- Demonstrate problem solving abilities in mathematics

5 METHODOLOGY AND TIME ALLOCATION

The syllabus is based on learner-centred multi-sensory approaches in the teaching and learning of Infant learners. The emphasis is on adopting methods that will enable learners to acquire competences in the physical, social, emotional and cognitive domains using tangible and intangible heritage. The teaching and learning process must be hands-on, inclusive, and gender sensitive. It should encourage collaboration, promote self-confidence, ethics, and *Ubuntu /Unhu /Numunhu* among others. The recommended methodologies are designed to promote and lay a firm foundation for problem solving and critical thinking in mathematics. The learners should be allowed to develop their own solutions with the facilitator providing guidance where necessary within a specific time frame. The use of Information and Communication Technology (ICT) is recommended as a problem-solving tool.

5.1 Methodology

The methods suggested below, should be used through play which is the major vehicle of Infant learning

- 5.1.1 Discovery
- 5.1.2 Experimentation
- 5.1.3 Group work
- 5.1.4 Projects
- 5.1.5 Songs and dances
- 5.1.6 Poems and rhymes
- 5.1.7 Question and answer
- 5.1.8 Educational Tours

- 5.1.9 Discussion
- 5.1.10 Investigation
- 5.1.11 Dramatisation / role play
- 5.1.12 Imitation.

The methods used should consider individual differences, children's learning styles, and use of concrete objects. There should be development of domains and motivation of learners.

5.2 Mathematics Time Allocation

Time allocation per week is as follows:

LEVEL	DURATION (Minutes per lesson)	TIME ALLOCATION PER WEEK
ECD	20	2 hours
GRADE 1 AND 2	30	3 hours

It should be noted that:

- There should be one (1) double lesson per week per grade
- Learners should engage in at least two educational tours per year
- Learners should engage in one MAJOR School Based Project per grade per year

6 SYLLABUS TOPICS

The following are syllabus topics for Infant School Module in Mathematics:

- Number
- Operations
- Measures
- Relationships

7 SCOPE AND SEQUENCE

7.1 TOPIC 1: NUMBER

ECD A	ECD B	GRADE 1	GRADE 2
<ul style="list-style-type: none"> • Matching <ul style="list-style-type: none"> - according to size and colour - pictures according to colour 	<ul style="list-style-type: none"> • Matching <ul style="list-style-type: none"> - Objects and pictures according to colour, size and type 	<ul style="list-style-type: none"> • Matching <ul style="list-style-type: none"> - sets with numbers - numerals to words 	
<ul style="list-style-type: none"> • Counting objects from 1 to 5 	<ul style="list-style-type: none"> • Counting objects from 1 to 10 	<ul style="list-style-type: none"> • Counting objects from 1 to 50 	<ul style="list-style-type: none"> • Counting objects from 1 to 100 • Number in relation to age, home addresses, telephone numbers and dates of birth
<ul style="list-style-type: none"> • Ordering <ul style="list-style-type: none"> - objects according to colour - pictures according to colour 	<ul style="list-style-type: none"> • Ordering <ul style="list-style-type: none"> - objects according to size 	<ul style="list-style-type: none"> • Ordering <ul style="list-style-type: none"> - arrange objects to sets - state the position of a number on the number-line 	
		<ul style="list-style-type: none"> • Numerical order <ul style="list-style-type: none"> - numbers in ascending and descending order 	<ul style="list-style-type: none"> • Numerical Order <ul style="list-style-type: none"> - numbers in ascending and descending order
<ul style="list-style-type: none"> • Construction <ul style="list-style-type: none"> - blocks 	<ul style="list-style-type: none"> • Construction <ul style="list-style-type: none"> - different objects using different materials - construct patterns 	<ul style="list-style-type: none"> • Construction <ul style="list-style-type: none"> - jig saw puzzles with numbers 	<ul style="list-style-type: none"> • Construction <ul style="list-style-type: none"> - puzzles involving numbers
<ul style="list-style-type: none"> • Sorting <ul style="list-style-type: none"> According to: 	<ul style="list-style-type: none"> • Sorting <ul style="list-style-type: none"> - objects and pictures 		

<ul style="list-style-type: none"> - colour - texture - size - type 	according to colour, size and type		
	<ul style="list-style-type: none"> • Ordinal numbers from 1st to 5th 	<ul style="list-style-type: none"> • Ordinal numbers from 1st to 10th 	<ul style="list-style-type: none"> • Ordinal Numbers from 1st to 20th
			<ul style="list-style-type: none"> • Fractions - proper fractions (denominators 2 and 4)
	<ul style="list-style-type: none"> • Approximations and estimations 		<ul style="list-style-type: none"> • Approximations and estimations
	<ul style="list-style-type: none"> • Comparisons -objects and numbers 		<ul style="list-style-type: none"> • Comparisons -objects according to quantity and size -comparisons of numbers

7.2 TOPIC 2: OPERATIONS

ECD A	ECD B	GRADE 1	GRADE 2
<ul style="list-style-type: none"> • Addition games and rhymes 	<ul style="list-style-type: none"> • Addition using games, rhymes and sets 	<ul style="list-style-type: none"> • Addition of whole numbers with the sum up to 50 	<ul style="list-style-type: none"> • Addition of whole numbers with the sum up to 100
<ul style="list-style-type: none"> • Subtraction games and rhymes 	<ul style="list-style-type: none"> • Subtraction using games, rhymes and sets 	<ul style="list-style-type: none"> • Subtraction of whole numbers within the range 0 to 50 	<ul style="list-style-type: none"> • Subtraction of whole numbers within the range 0 to 100
		<ul style="list-style-type: none"> • Multiplication using sets (product must 	<ul style="list-style-type: none"> • Multiplication using sets (product must not exceed

		not exceed 10)	20)
	<ul style="list-style-type: none"> Sharing objects not exceeding 10 between 2 people/ objects/ animals/ sets 	<ul style="list-style-type: none"> Division using sharing where the shared objects must not exceed 10 	<ul style="list-style-type: none"> Division using sharing where the shared objects must not exceed 20

7.3 TOPIC 3: MEASURES

ECD A	ECD B	GRADE 1	GRADE 2
<ul style="list-style-type: none"> Money <ul style="list-style-type: none"> - Coins and notes - uses of money - 1c to 5 c 	<ul style="list-style-type: none"> Money <ul style="list-style-type: none"> - Uses of money - buying and selling using 1c to 9c 	<ul style="list-style-type: none"> Money up to 50 cents 	<ul style="list-style-type: none"> Money up to \$1,00
<ul style="list-style-type: none"> Time (sequence of events) 	<ul style="list-style-type: none"> Time (different times of the day) Days of the week 	<ul style="list-style-type: none"> Time <ul style="list-style-type: none"> - Days of the week - Today, yesterday, tomorrow - Months of the year 	<ul style="list-style-type: none"> Time <ul style="list-style-type: none"> - Days of the week - Months of the year - Hour and half hour
<ul style="list-style-type: none"> Mass <ul style="list-style-type: none"> - Using heavy and light 	<ul style="list-style-type: none"> Mass <ul style="list-style-type: none"> - Using heavy and light - Order by mass /weight through lifting objects 	<ul style="list-style-type: none"> Mass <ul style="list-style-type: none"> - Compare masses using heavier and lighter - Rates on movements can be compared 	<ul style="list-style-type: none"> Mass <ul style="list-style-type: none"> - Weigh using non-standards units - Use of standard measure of length
	<ul style="list-style-type: none"> Length <ul style="list-style-type: none"> - non - standard units - identifying long and 	<ul style="list-style-type: none"> Length <ul style="list-style-type: none"> - Length, width and height can be compared using 	<ul style="list-style-type: none"> Use of standard measure of length <ul style="list-style-type: none"> - Perimeter

	<p>short objects</p> <ul style="list-style-type: none"> - Sorting according to length - comparing length 	<p>non-standard units (NSU)</p>	<ul style="list-style-type: none"> - Compare and measure area using non-standard units and by counting squares
		<ul style="list-style-type: none"> • Rate - Rates on movement can be compared 	<ul style="list-style-type: none"> • Rates of moving objects and performing tasks differ
<ul style="list-style-type: none"> • Volume/Capacity • Comparing objects using big and small 	<ul style="list-style-type: none"> • Volume/Capacity • comparing objects using bigger than and smaller than • Capacity of different containers 	<ul style="list-style-type: none"> • Volume/Capacity - Compare capacity using non-standard units 	<ul style="list-style-type: none"> • Volume/capacity • Measure capacity using non-standard units and millilitres
<ul style="list-style-type: none"> • Plane Shapes • Matching plain shapes 	<ul style="list-style-type: none"> • Plane Shapes • Matching plane shapes • Sorting according to shape • Identifying shapes 	<ul style="list-style-type: none"> • Plane shape (square, rectangle, circle, triangle) • Identifying shapes • Drawing • Matching 	<ul style="list-style-type: none"> • Plane shape • Recognize differences and similarities of shapes • Solid shapes (cone, cylinder, sphere, cube)

7.4 TOPIC 4: RELATIONSHIPS

ECD A	ECD B	GRADE 1	GRADE 2
<ul style="list-style-type: none"> • Visual and Spatial Relationships -performance of activities 	<ul style="list-style-type: none"> • Visual and Spatial Relationships -writing and performance activities 	<ul style="list-style-type: none"> • Relationships -Data collection - Presenting data 	<ul style="list-style-type: none"> • Relationships -Data handling - data presentation
<ul style="list-style-type: none"> • Patterns -variety of patterns 	<ul style="list-style-type: none"> • Patterns- -pattern making -pattern drawing 		

Take note that facilitators must make learners aware of the dangers associated with putting things in the ears, nose and mouth.

8 COMPETENCY MATRIX**8.1 (ECD A) TOPIC 1: NUMBER**

SUB TOPIC	OBJECTIVES Learners should be able to:	CONTENT (Skills, values; attitudes, and knowledge)	SUGGESTED ACTIVITIES and NOTES	SUGGESTED RESOURCES
Matching	<ul style="list-style-type: none"> • match objects according to size 	<ul style="list-style-type: none"> • Object matching 	<ul style="list-style-type: none"> • Comparing similar 	<ul style="list-style-type: none"> • Blocks

	<ul style="list-style-type: none"> • match objects according to colour • match pictures according to colour 	<ul style="list-style-type: none"> • Picture matching 	<ul style="list-style-type: none"> objects to colour • Matching blocks to colour • Matching objects to size 	<ul style="list-style-type: none"> • Coloured pictures • Lunch boxes • Coloured shapes • Seeds • Cups • Hats • Satchels • Chairs • Uniforms • Digital tools
Counting	<ul style="list-style-type: none"> • say/sign numbers 1-5 	<ul style="list-style-type: none"> • Oral counting 	<ul style="list-style-type: none"> • Counting and saying numbers from 1 to 5 	<ul style="list-style-type: none"> • Objects from the environment • Objects in the classroom • Digital gadgets
Ordering	<ul style="list-style-type: none"> • arrange objects according to colour • arrange pictures according to colour 	<ul style="list-style-type: none"> • Ordering to colour 	<ul style="list-style-type: none"> • Sorting similar objects according to colour • Matching pictures to colour 	<ul style="list-style-type: none"> • Leaves • Bottle-tops • Coloured pictures • Kitchen utensils • ICT games
Construction	<ul style="list-style-type: none"> • construct blocks 	<ul style="list-style-type: none"> • Block construction 	<ul style="list-style-type: none"> • Building blocks using different materials 	<ul style="list-style-type: none"> • Plastic blocks • Wooden blocks • Bricks • Stones • ICT games • Chairs
Sorting	<ul style="list-style-type: none"> • sort according to colour 	<ul style="list-style-type: none"> • Object sorting 	<ul style="list-style-type: none"> • Group objects 	<ul style="list-style-type: none"> • Coloured pictures

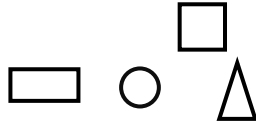
	<ul style="list-style-type: none"> • sort according to texture • sort according to size • sort according to type 	<ul style="list-style-type: none"> • Picture sorting 	according to colour, size, texture, type	<ul style="list-style-type: none"> • Beads • Blocks • Traditional utensils • Objects in the environment
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8.2 (ECD A) TOPIC 2: OPERATIONS

KEY CONCEPT	OBJECTIVES Learners should be able to:	CONTENT (Skills, values; attitudes, and knowledge)	SUGGESTED ACTIVITIES and NOTES	SUGGESTED RESOURCES
Addition <ul style="list-style-type: none"> • Addition games and rhymes 	<ul style="list-style-type: none"> • demonstrate addition of numbers through games from 1-5 • recite addition rhymes from 1-5 • sing addition songs from 1-5 	<ul style="list-style-type: none"> • Addition games • Addition rhymes • Addition songs 	<ul style="list-style-type: none"> • Playing traditional addition games • Playing modern addition games • Reciting addition rhymes • Singing addition songs 	<ul style="list-style-type: none"> • ICT gadgets • Resource persons • Outdoor play area • Pebbles • Dices • Digital tools
Subtraction <ul style="list-style-type: none"> • Subtraction games and rhymes 	<ul style="list-style-type: none"> • demonstrate subtraction of numbers through games from 5-1 • recite subtraction rhymes from 5-1 • sing subtraction songs from 5-1 	<ul style="list-style-type: none"> • Subtraction games • Subtraction rhymes • Subtraction songs 	<ul style="list-style-type: none"> • Playing traditional subtraction games • Playing modern subtraction games • Reciting modern and traditional rhymes • Singing modern and traditional subtraction songs 	<ul style="list-style-type: none"> • Traditional equipment in the school • Pictures • ICT gadgets

8.3 (ECD A) TOPIC 3: MEASURES

KEY CONCEPT	OBJECTIVES Learners should be able to:	CONTENT (Skills, values; attitudes, and knowledge)	SUGGESTED ACTIVITIES and NOTES	SUGGESTED RESOURCES
Money -1c to 5c	<ul style="list-style-type: none"> • identify coins • use money 	<ul style="list-style-type: none"> • Coin recognition • Use of money 	<ul style="list-style-type: none"> • Identifying coins from 1c -5c • Reciting money rhymes • Playing money games 	<ul style="list-style-type: none"> • Traditional fruits • Items in the classroom store • Coins • Digital tools
Time	<ul style="list-style-type: none"> • identify /sign sequences of events 	<ul style="list-style-type: none"> • Sequence events 	<ul style="list-style-type: none"> • Arranging pictures of events in sequence • Narrating daily routines • Describing changes of things over time for example growth of plants. 	<ul style="list-style-type: none"> • Cards or pictures of sequential events-growing maize, eggs to chicken, baby to old age • Pictures of morning, afternoon and evening activities
Mass	<ul style="list-style-type: none"> • distinguish/sign between heavier and lighter 	<ul style="list-style-type: none"> • Heavy and light 	<ul style="list-style-type: none"> • guessing which objects are heavier or lighter • conforming guess by lifting objects 	<ul style="list-style-type: none"> • See-saw • Stones • Seeds • Leaves

			and determining whether heavier or lighter	<ul style="list-style-type: none"> • Papers • Bricks
Volume and Capacity	<ul style="list-style-type: none"> • compare objects using bigger and smaller • compare quantities using more or less 	<ul style="list-style-type: none"> • amount of space occupied by a solid object • contents in different containers • More or less 	<ul style="list-style-type: none"> • distinguishing sizes of objects by observation • compare objects using bigger or smaller • investigate how size affects the amount of liquid a solid object displaces • compare quantities using more or less 	<ul style="list-style-type: none"> • Buckets • Cups • Bottles • Boxes • Water • Sand • Soil • Solid objects of various sizes
Plane Shapes	<ul style="list-style-type: none"> • identify plane shapes • match plane shapes through manipulation • identify/sign shapes from a demonstration given 	<ul style="list-style-type: none"> • shapes • plane shapes • identification • matching  <ul style="list-style-type: none"> • objects of different shapes • names of different plane shapes 	<ul style="list-style-type: none"> • identifying different plane shapes -circle, square, triangle and rectangle • naming shapes from description given • singing rhymes of shapes 	<ul style="list-style-type: none"> • Indoor and outdoor environment • Shapes • Books • Boxes • Plane shapes • Round containers e.g. shoe polish container • Tables and objects in the environment

8.4 (ECD A) TOPIC 4: RELATIONSHIPS

KEY CONCEPT	OBJECTIVES Learners should be able to:	CONTENT (Skills, attitudes, and knowledge)	SUGGESTED ACTIVITIES	SUGGESTED RESOURCES
Visual and spatial relationships	<ul style="list-style-type: none"> • use/sign space reasonably in performance activities 	<ul style="list-style-type: none"> • Use/Sign of space 	<ul style="list-style-type: none"> • Describing the position of 1 thing in relation to another. • Locating the positions of objects or pictures in a given space • Chanting traditional songs and rhymes that address relationships • Playing games aligned to relationships 	<ul style="list-style-type: none"> • Satchels • Books • Winnowing baskets • Objects in the environment • Digital tools
Patterns	<ul style="list-style-type: none"> • make a variety of patterns 	<ul style="list-style-type: none"> • Pattern making 	<ul style="list-style-type: none"> • Making patterns as individuals or in pairs/ groups using body parts for example, footprints, palms and fists • Pattern rhymes • Traditional Pattern games 	<ul style="list-style-type: none"> • <i>Nhodo</i> • Stones • Sticks • Materials in the environment • Crayons • Charcoal • Bricks • Pictures • Digital tools

8.5 (ECD B) TOPIC 1: NUMBER

KEY CONCEPT	OBJECTIVES Learners should be able to:	CONTENT (Skills, attitudes, and knowledge)	SUGGESTED ACTIVITIES	SUGGESTED RESOURCES
Matching	<ul style="list-style-type: none"> • match objects and pictures according to colour • match objects and pictures according to size • match objects according to type 	<ul style="list-style-type: none"> • Object matching • Picture matching 	<ul style="list-style-type: none"> • Matching different objects according to colour • Matching different objects according to size • Pairing objects using colour and size 	<ul style="list-style-type: none"> • Objects in the local environment • Picture cards • Bottle-tops
Counting	<ul style="list-style-type: none"> • say/sign numbers 1-10 • count from 1-10 • 	<ul style="list-style-type: none"> • Count from 1-10 • Numbers 1-10 	<ul style="list-style-type: none"> • Listing numbers from 1-10 • Reciting indigenous number rhymes • Playing indigenous number games • Identifying objects and animals from 1-10 	<ul style="list-style-type: none"> • stones • counters • empty plastic containers • music • outdoor play area • counting pictures of domestic and wild animals • bottle tops • digital gadgets
Ordering	<ul style="list-style-type: none"> • arrange objects in order of size in sequence 	<ul style="list-style-type: none"> • Ordering 	<ul style="list-style-type: none"> • Arranging objects in order of size • Arranging pictures in order of size 	<ul style="list-style-type: none"> • Play area • Pictures • Fabrics • Buttons • Any other objects from the environment

<p>Construction</p>	<ul style="list-style-type: none"> • construct different objects using different materials • Identify pieces that can be merged to form patterns • match pieces to form patterns • thread hollow materials using string • construct patterns • bond and fit a variety of objects 	<ul style="list-style-type: none"> • Construction • Fitting pieces to form patterns • Objects can be joined, fitted and bonded 	<ul style="list-style-type: none"> • Constructing different objects using different materials • Tying objects to form bonds • Pasting bonded objects onto surface • Constructing different objects using different materials • Identifying pieces that can be merged to form patterns • Connecting interlocking toys to form different objects • Threading hollow materials to form necklaces, bundles and belts • Completing puzzles • Counting number of materials to form a pattern • Sequencing objects to form a pattern 	<ul style="list-style-type: none"> • Match boxes • Bottle tops • Coloured shapes • Straws • Shoes • Polish tins • Seeds • Strings • Locally available materials • ICT gadgets
<p>Sorting</p>	<ul style="list-style-type: none"> • sort objects and pictures according to colour 	<ul style="list-style-type: none"> • Object sorting • Picture sorting 	<ul style="list-style-type: none"> • Sorting different objects according to 	<ul style="list-style-type: none"> • Indoor and outdoor playing areas

	<ul style="list-style-type: none"> • sort objects and pictures according to size • sort objects according to type 		colour <ul style="list-style-type: none"> • Sorting different objects according to size • Pairing objects using colour and size 	<ul style="list-style-type: none"> • Picture cards • Bottle-tops • Objects in the local environment
Ordinal numbers	<ul style="list-style-type: none"> • say/sign ordinal numbers from 1st to 5th 	<ul style="list-style-type: none"> • Ordinal numbers from 1st - 5th 	<ul style="list-style-type: none"> • Stating ordinal numbers from 1st to 5th • Playing ordinal number traditional games 	<ul style="list-style-type: none"> • stones • counters • empty plastic containers • music • outdoor play area • counting pictures of domestic and wild animals • bottle tops

8.6 (ECD B) TOPIC 2: OPERATIONS

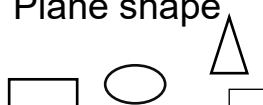
KEY CONCEPT	OBJECTIVES Learners should be able to:	CONTENT (Skills, values; attitudes, and knowledge)	SUGGESTED ACTIVITIES	SUGGESTED RESOURCES
Addition	<ul style="list-style-type: none"> • demonstrate addition of numbers through games from 1-10 • recite addition rhymes from 1-10 • sing addition songs from 1-10 	<ul style="list-style-type: none"> • Addition games • Addition rhymes • Addition songs 	<ul style="list-style-type: none"> • Playing traditional addition games • Playing modern addition games • Reciting addition rhymes • Singing addition songs 	<ul style="list-style-type: none"> • ICT gadgets • Resource persons • Outdoor play area • Pebbles • Counters from the local environment

<p>Subtraction</p>	<ul style="list-style-type: none"> • demonstrate subtraction of numbers through games from 10-1 • recite subtraction rhymes from 10-1 • sing subtraction songs from 10-1 	<ul style="list-style-type: none"> • Subtraction games • Subtraction rhymes • Subtraction songs 	<ul style="list-style-type: none"> • Playing traditional subtraction games • Playing modern subtraction games • Reciting modern and traditional rhymes • Singing modern and traditional subtraction songs 	<ul style="list-style-type: none"> • Locally available objects • Pictures • ICT gadgets
<p>Sharing (equally)</p> <ul style="list-style-type: none"> • Shared objects must not exceed 10 	<ul style="list-style-type: none"> • demonstrate sharing 	<ul style="list-style-type: none"> • Sharing between/ among 	<ul style="list-style-type: none"> • Playing turn taking traditional and contemporary games • Playing serving sharing games- Wendy housing- traditional and contemporary 	<ul style="list-style-type: none"> • Skipping ropes • Bean bags • Empty containers • Balls • Traditional fruits • Scrambles • Snakes and ladders • ICT Gadgets

8.7 (ECD B) TOPIC 3: MEASURES

KEY CONCEPT	OBJECTIVES Learners should be able to:	CONTENT (Skills, values; attitudes, and knowledge)	SUGGESTED ACTIVITIES	SUGGESTED RESOURCES
<p>Money</p> <ul style="list-style-type: none"> • Money must not exceed 9c 	<ul style="list-style-type: none"> • Identify coins • Use coins to buy goods 	<ul style="list-style-type: none"> • Buying and selling • Uses of money 	<ul style="list-style-type: none"> • Role play buying and selling • Practical buying and selling 	<ul style="list-style-type: none"> • Card replicas • Real money • The classroom shop • Real shops

				<ul style="list-style-type: none"> • Fruits • School tuck-shop
<p>Time</p>	<ul style="list-style-type: none"> • Tell time as morning, afternoon and night. • Describe the activities they carry out during the day in sequence 	<ul style="list-style-type: none"> • Different times of the day • Daily routines – for example waking up, breakfast, lunch, supper, bedtime 	<ul style="list-style-type: none"> • Telling time as morning afternoon and night • Chanting traditional rhymes and poems that depict the times of the day • Arranging pictures of what people do in terms of time of the day • Arranging pictures that show different times of the day 	<ul style="list-style-type: none"> • Posters of times of day • Inside and Outside environment • Clocks • Digital gadgets
<p>Mass</p> <ul style="list-style-type: none"> • Heavy and light 	<ul style="list-style-type: none"> • Compare objects according to mass • Order objects according to mass 	<ul style="list-style-type: none"> • Masses of different objects – heavy and light 	<ul style="list-style-type: none"> • Comparing the masses of different objects by lifting • Compare their own masses • Traditional and contemporary songs, rhymes or games pertaining to mass • Colouring pictures of either heavy or light objects 	<ul style="list-style-type: none"> • Outdoor play area • Balance scales • Objects in the local environment for example stones, bricks • See-saw

			<ul style="list-style-type: none"> • Arrange objects according to mass either in descending or ascending order 	
Volume / Capacity	<ul style="list-style-type: none"> • compare the capacity of different containers • use/sign terms such as more or less than to compare capacity 	<ul style="list-style-type: none"> • Capacity of different containers • Volume of different containers 	<ul style="list-style-type: none"> • Pouring contents/ substance from one container to another • Experimenting with the containers of the same or different capacities 	<ul style="list-style-type: none"> • Bottles • Lunch boxes • Spoons • Cups • Buckets • Plates • Scoops • Water • Grains • Sand • Gourd • Small clay pots
Plane Shapes <ul style="list-style-type: none"> • circle • square • triangle • rectangle 	<ul style="list-style-type: none"> • Identify plane shapes • Join the dots to form a shape • Draw plane shapes 	<ul style="list-style-type: none"> • Plane shape  <ul style="list-style-type: none"> • Draw shapes <p>plane</p>	<ul style="list-style-type: none"> • Chanting rhymes of shapes • Join the dots to form a shape • Tracing the shapes • Drawing the shapes • Colouring shapes 	<ul style="list-style-type: none"> • Indoor and Outdoor play areas • Tables • Objects in the environment • Containers • Shape templates • Boxes • Classroom environment
Length <ul style="list-style-type: none"> • (using non-standard units) 	<ul style="list-style-type: none"> • Identify long and short objects 	<ul style="list-style-type: none"> • Comparing lengths 	<ul style="list-style-type: none"> • Naming objects from the local environment of different lengths • Comparing length of 	<ul style="list-style-type: none"> • Indigenous cooking tools • Rulers • Sticks • Strings

			different objects	<ul style="list-style-type: none"> • Knobkerries • Tables • Books • Benches • Ropes • Crayons • Pencils • Indoor and outdoor play area
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8.8 (ECD B) TOPIC: RELATIONSHIPS

KEY CONCEPT	OBJECTIVES Learners should be able to:	CONTENT (Skills, attitudes, and knowledge)	SUGGESTED ACTIVITIES	SUGGESTED RESOURCES
Visual and spatial relationships	<ul style="list-style-type: none"> • use/sign space reasonably in writing and performance activities 	<ul style="list-style-type: none"> •The use/sign of space 	<ul style="list-style-type: none"> • Describing the position of one thing in relation to another. •Locating the positions of objects or pictures in a given space •Chanting traditional songs and rhymes that address relationships •Playing games aligned to 	<ul style="list-style-type: none"> • Satchels • Books • Winnowing baskets • Winnowing trays • objects in the environment • Digital tools

			relationships	
Patterns	<ul style="list-style-type: none"> draw a variety of patterns 	<ul style="list-style-type: none"> Pattern making Pattern drawing 	<ul style="list-style-type: none"> Making patterns in the air Pattern rhymes Traditional Pattern games 	<ul style="list-style-type: none"> Stones Sticks Materials in the environment Crayons Charcoal Bricks Pictures Digital tools

8.9 (GRADE 1) NUMBER

KEY CONCEPT	OBJECTIVES Learners should be able to:	CONTENT (Skills, values; attitudes, and knowledge)	SUGGESTED ACTIVITIES	SUGGESTED RESOURCES
<ul style="list-style-type: none"> Matching 	<ul style="list-style-type: none"> match sets with numbers match numerals to words 	<ul style="list-style-type: none"> Number matching 	<ul style="list-style-type: none"> Counting objects in a set Matching sets with numbers 	Objects in the environment
<ul style="list-style-type: none"> Counting 	<ul style="list-style-type: none"> count objects from 1 to 50 construct sets of 2s and 5s up to 10 identify sets of 2s and 5s up to 10 	<ul style="list-style-type: none"> Counting 	<ul style="list-style-type: none"> Counting Making sets 	<ul style="list-style-type: none"> Counters Number line Objects in the environment Number charts
<ul style="list-style-type: none"> Ordering 	<ul style="list-style-type: none"> arrange objects in sets state the position of a 	<ul style="list-style-type: none"> Objects and numbers 	<ul style="list-style-type: none"> Sequencing numbers according to size 	<ul style="list-style-type: none"> Objects in the environment

	number in a number line		<ul style="list-style-type: none"> •Arranging objects in sets •Filling the missing number 	
<ul style="list-style-type: none"> • Numerical order 	<ul style="list-style-type: none"> • arrange numbers in ascending and descending order 	<ul style="list-style-type: none"> • Numerical order 	<ul style="list-style-type: none"> •Sequencing numbers according to size 	<ul style="list-style-type: none"> • Number line
<ul style="list-style-type: none"> • Construction 	<ul style="list-style-type: none"> • complete a jigsaw puzzle with numbers 	<ul style="list-style-type: none"> • Jigsaw puzzle with numbers 	<ul style="list-style-type: none"> •Constructing and completing puzzles 	<ul style="list-style-type: none"> • Number puzzles • Number line • Number dominoes
<ul style="list-style-type: none"> • Ordinal numbers 	<ul style="list-style-type: none"> • say ordinal numbers from 1st to 10th • identify ordinal position of objects 	<ul style="list-style-type: none"> • Ordinal numbers 	<ul style="list-style-type: none"> •Arranging and telling positions of objects according to some given order 	<ul style="list-style-type: none"> • Objects in a sequence • Number line
<ul style="list-style-type: none"> • Approximations and estimations 	<ul style="list-style-type: none"> • say numbers near 10 • estimate quantities of objects 	<ul style="list-style-type: none"> • Approximations • Estimations 	<ul style="list-style-type: none"> •Approximating quantities •Telling numbers near 10, 20, 30, 40, 50 	<ul style="list-style-type: none"> • Number line with numbers 0 to 50 • Using power point slides on numbers • Electronic games
<ul style="list-style-type: none"> • Comparisons 	<ul style="list-style-type: none"> • compare objects • compare numbers 	<ul style="list-style-type: none"> • Comparisons 	<ul style="list-style-type: none"> •Comparing objects •Comparing numbers using terms greater than, less than and equal to (>, <, =) 	<ul style="list-style-type: none"> • Different objects in the environment • Number line to 50 • Number stripes • Number cards

8.10 (GRADE 1) OPERATIONS

KEY CONCEPT	OBJECTIVES Learners should be able to:	CONTENT (Skills, values; attitudes, and knowledge)	SUGGESTED ACTIVITIES	SUGGESTED RESOURCES
<ul style="list-style-type: none"> Addition of whole numbers with the sum up to 50 	<ul style="list-style-type: none"> add whole numbers demonstrate addition using signs and addition terms add whole numbers using calculators <p>NB Calculators are not for daily use but for familiarisation.</p>	<ul style="list-style-type: none"> Addition of whole numbers to a sum not exceeding 50 using concrete objects 	<ul style="list-style-type: none"> Combining/putting together sets of objects Finding the sum using a number line using and writing + and = signs and addition terms as count on, plus, add, sum, altogether, make and total Playing games involving addition 	<ul style="list-style-type: none"> Counters from the local environment Charts Number lines Smart phones /calculators
<ul style="list-style-type: none"> Subtraction of whole numbers within the range 0 to 50 	<ul style="list-style-type: none"> subtract whole numbers within the range using concrete objects demonstrate subtraction using signs and subtract whole numbers using calculators <p>NB Calculators are not for daily use but for familiarisation only.</p>	<ul style="list-style-type: none"> Subtraction of whole numbers within the range using concrete objects 	<ul style="list-style-type: none"> Using objects to demonstrate subtraction by taking away Finding the difference between two numbers by matching the objects and using the number line Using the minus (-) and equal sign (=) as 	<ul style="list-style-type: none"> Counters from the local environment Charts Number lines Digital tools

			<p>well as terms like minus, count back, take away, from, and difference</p> <ul style="list-style-type: none"> •Playing games involving subtraction 	
<ul style="list-style-type: none"> • Multiplication using sets (product must not exceed 10) 	<ul style="list-style-type: none"> • count in sets of twos • multiply using repeated addition • calculate the product of two numbers by counting sets 	<ul style="list-style-type: none"> • Multiplication 	<ul style="list-style-type: none"> •Using sets to get products •Counting in sets of twos •Solving story problems on multiplication 	<ul style="list-style-type: none"> • Charts • Digital tools • Locally available resources
<ul style="list-style-type: none"> • Division using sharing where the shared objects must not exceed 10 	<ul style="list-style-type: none"> • find the quotient (result) by sharing equally 	<ul style="list-style-type: none"> • Division 	<ul style="list-style-type: none"> •Demonstrating division by sharing equally to promote collaboration •using sets to demonstrate division •solving story problems on division 	<ul style="list-style-type: none"> • charts • digital tools • rulers • counters • locally available resources

8.11 (GRADE 1) MEASURES

KEY CONCEPT	OBJECTIVES Learners should be able to:	CONTENT (Skills, values; attitudes, and knowledge)	SUGGESTED ACTIVITIES	SUGGESTED RESOURCES
<ul style="list-style-type: none"> • Money up to 50 cents 	<ul style="list-style-type: none"> • identify coins • give compositions of coins • calculate change 	<ul style="list-style-type: none"> • Recognition of coins up to 50cents • Value of combination of coins up to 50cents • Change in buying and selling 	<ul style="list-style-type: none"> •Collecting coins up to 50 cents •Breaking down of bigger denominations into smaller denominations diagrammatically •Singing money rhymes •Playing shop games/excursion to acquire financial literacy skills 	<ul style="list-style-type: none"> • Coins up to 50 cents and paper coins • NB learners should not put coins in their ears, nose and mouth
<ul style="list-style-type: none"> • Time - Days of the week - Today, yesterday, tomorrow - Months of the year 	<ul style="list-style-type: none"> • name days of the week • tell what the present day is, the previous day and the following day • name months of the year 	<ul style="list-style-type: none"> •Recognizing days of the week •Telling time in terms of present day, yesterday and tomorrow •Listing months of the year 	<ul style="list-style-type: none"> •Singing days of the week rhymes •Listing days of the week •Using today, yesterday and tomorrow in sentences •Reciting poems on days of the week •Singing songs on months of the year •Listing months of the year 	<ul style="list-style-type: none"> • Birthday chart • Calendar • Class time table • Flash cards • Wheel chart

<ul style="list-style-type: none"> • Mass • Weigh using non-standard units • Use of standard measure of mass (not exceeding 100 grams) 	<ul style="list-style-type: none"> • compare mass using non-standard units • weigh objects using standard units 	<ul style="list-style-type: none"> • Weigh using non-standard units • Use of standard measure of mass 	<ul style="list-style-type: none"> • Making balance scales • Comparing mass of different objects using non-standard units and balance scales • Discussing the importance of balance in Disaster Risk Management • Solving simple problems involving mass 	<ul style="list-style-type: none"> • Balance scales • See-saw • Different objects in the environment for example stones, feathers, bricks, seeds, bottle tops
<ul style="list-style-type: none"> • Length • Comparing length and height using non-standard units • Standard measures of length (not to exceed 100cm) • Perimeter 	<ul style="list-style-type: none"> • compare measurements using non-standard units • measure lengths of objects in centimeters (cm) • calculate perimeter 	<ul style="list-style-type: none"> • length and height can be compared using non-standard units • Standard measures of length • Perimeter 	<ul style="list-style-type: none"> • Measuring the lengths in cm up to 100 cm • Comparing the lengths and heights of objects using non-standard units • Finding perimeter by measuring • Solve simple problems involving length and perimeter 	<ul style="list-style-type: none"> • Objects in the environment such as books, tables, black boards, strings, sticks • 30 cm ruler
<ul style="list-style-type: none"> • Rate • Rates of moving objects and performing tasks differ 	<ul style="list-style-type: none"> • compare rate using the words slow, slower, slowest and fast, faster, fastest to describe movements and performing tasks 	<ul style="list-style-type: none"> • Rates of moving objects and performing tasks differ 	<ul style="list-style-type: none"> • Comparing the rate at which learners walk, run, read and perform tasks NB Performing tasks and measuring rate of performance 	<ul style="list-style-type: none"> • Objects in the environment for example pendulums, sand, stop watch, bottles

			using time devices will help in developing time management	
<ul style="list-style-type: none"> • Volume/Capacity • Standard and non-standard units of capacity (standard unit must not exceed 100ml) 	<ul style="list-style-type: none"> • compare capacity of containers using non-standard units • measure capacity 	<ul style="list-style-type: none"> • Non-standard units of capacity • Standard measure of capacity 	<ul style="list-style-type: none"> • Using non-standard measures to compare capacity • Showing that the quantity of a substance that can go into a container is dependent on the size of the container 	<ul style="list-style-type: none"> • Spoons • Containers • Plates • Bottles • 100 ml syringes • Measuring jug
<ul style="list-style-type: none"> • Shapes • Plane shape (square, rectangle, triangle, circle) • Similarities and differences of shapes • Solid shapes (cube, cylinder, cone, sphere) 	<ul style="list-style-type: none"> • identify plane and solid shapes • name plane and solid shapes • describe plane and solid shapes 	<ul style="list-style-type: none"> • Similarities and differences of shapes 	<ul style="list-style-type: none"> • Identifying shapes • Naming shapes • Labelling • Tracing out shapes • Drawing and colouring shapes • Modelling different shapes • Describing shapes 	<ul style="list-style-type: none"> • Rectangular, circular, triangular and square shapes • Match boxes • Tissue rolls • Balls • Classroom environment

8.12 (GRADE 1) RELATIONSHIPS

KEY CONCEPT	OBJECTIVES Learners should be able to:	CONTENT (Skills, attitudes, and knowledge)	SUGGESTED ACTIVITIES	SUGGESTED RESOURCES
<ul style="list-style-type: none"> • Relationships -Data collection - Presenting data 	<ul style="list-style-type: none"> • represent data using concrete objects 	<ul style="list-style-type: none"> •Data can be represented using concrete objects 	<ul style="list-style-type: none"> •Sorting objects into different categories •Representing data by creating vertical columns of colour blocks (whose heights depend on available number of blocks of each type) •Representing data by creating vertical and horizontal columns of objects in different categories •Discussing which category is the most or least common 	<ul style="list-style-type: none"> • Seeds, • Shapes, • Colour blocks • Charts with vertical and horizontal lines

8.13 (GRADE 2) NUMBER

KEY CONCEPT	OBJECTIVES Learners should be able to:	CONTENT (Skills, attitudes, and knowledge)	SUGGESTED ACTIVITIES	SUGGESTED RESOURCES
<ul style="list-style-type: none"> Counting objects from 1 to 100 (numerals and words) 	<ul style="list-style-type: none"> count objects from 1 to 100 say, read and write numbers within the range identify numbers within range construct sets of 5s and 10s say their ages, home addresses, telephone numbers and birth dates recite numbers in 5s and 10s say, read and write numbers within the range 	<ul style="list-style-type: none"> Count objects from 1 to 100 Use of numbers to identify ages, home addresses, telephone number and birth dates 	<ul style="list-style-type: none"> Counting saying, reading and writing numerals 0 to 100 Identifying numbers Making sets of 5s and 10s Stating and writing their ages, home addresses, telephone numbers and birth dates Reciting numbers in 5s and 10s 	<ul style="list-style-type: none"> Counters Number line Objects in the environment Number strips Digital tools
<ul style="list-style-type: none"> Numerical order Numbers from 0 to 100 	<ul style="list-style-type: none"> arrange numbers in ascending and descending order 	<ul style="list-style-type: none"> Numerical order 	<ul style="list-style-type: none"> Sequencing numbers according to size 	<ul style="list-style-type: none"> Number line Chart with numbers
<ul style="list-style-type: none"> Construction 	<ul style="list-style-type: none"> complete puzzles involving numbers 	<ul style="list-style-type: none"> Construction 	<ul style="list-style-type: none"> Identifying number of items used for construction 	<ul style="list-style-type: none"> Digital tools The number line Blocks

			<ul style="list-style-type: none"> •Constructing and completing puzzles •Arranging and re arranging materials to form items •Sorting numbers in ascending and descending order •Placing stickers on specific numbers 	<ul style="list-style-type: none"> • Number cards • Beads / bottle tops • Strings • Tapestry • Other materials from the environment
<ul style="list-style-type: none"> • Ordinal • Ordinal numbers from 1st to 20th <p>(Words and numerals)</p>	<ul style="list-style-type: none"> • tell positions in a sequence • say ordinal numbers within the range (1st-20th) • write ordinal numbers in words 	<ul style="list-style-type: none"> •Ordinal numbers from 1st to 20th 	<ul style="list-style-type: none"> •Arranging objects in a queue and identify their positions •Identifying the position of an object in relation to the ordinal number given •Playing turn taking games 	<ul style="list-style-type: none"> • Objects in the environment for example number cards • Digital tools • Charts on ordinal numbers
<ul style="list-style-type: none"> • Fractions • Proper fractions (denominator 2 and 4) 	<ul style="list-style-type: none"> • divide objects into halves and quarters • identify shaded fractions • compare fractions NB do not include unshaded fractions • 	<ul style="list-style-type: none"> •Proper fractions with denominators 2 and 4 	<ul style="list-style-type: none"> •Dividing objects into equal parts •Dividing objects into 4 equal parts •Representing halves and quarters diagrammatically by colouring or shading •Expressing the shaded part as a 	<ul style="list-style-type: none"> • Different objects • Oranges and apples, • Shapes • Digital tool •

			fraction •Comparing fractions using $>$, $<$, $=$ •	
<ul style="list-style-type: none"> • Approximations and estimations 	<ul style="list-style-type: none"> • rounding off numbers to the nearest 10 	<ul style="list-style-type: none"> • Approximations 	<ul style="list-style-type: none"> • Approximating quantities • Telling numbers near 10, 20, 30, 40, 50, 60, 70, 80, 90, 100 	<ul style="list-style-type: none"> • Number line with numbers 0 to 100 • Using power point slides on numbers • Electronic games • Digital tools
<ul style="list-style-type: none"> • Comparisons 	<ul style="list-style-type: none"> • compare objects according to quantity and size • compare numbers 	<ul style="list-style-type: none"> • Comparisons 	<ul style="list-style-type: none"> • Comparing objects • Comparing numbers using terms greater than, less than and equal to ($>$, $<$, $=$) 	<ul style="list-style-type: none"> • Different objects in the environment • Number line to 100 • Number stripes • Number cards

8.14 (GRADE 2) OPERATIONS

KEY CONCEPT	OBJECTIVES Learners should be able to:	CONTENT (Skills, attitudes, and knowledge)	SUGGESTED ACTIVITIES	SUGGESTED RESOURCES
<ul style="list-style-type: none"> • Addition of whole numbers with the sum up to 100 	<ul style="list-style-type: none"> • add whole numbers • demonstrate addition using signs and addition terms • add whole numbers using calculators <p>NB Calculators are not</p>	<ul style="list-style-type: none"> • Addition of whole numbers to a sum not exceeding 100 using concrete objects 	<ul style="list-style-type: none"> • Combining/putting together sets of objects • Finding the sum using a number line • using and writing $+$ and $=$ signs and 	<ul style="list-style-type: none"> • Counters from the local environment • Charts • Number lines • Smart phones /calculators • Ruler

	<p>for daily use but for familiarisation only.</p>		<p>addition terms as count on, plus, add, sum, altogether, make and total</p> <ul style="list-style-type: none"> • Solving problems on addition based on everyday context • Reinforcing basic addition facts through mental work • Playing games involving addition • Consolidating addition using calculators to enhance understanding of modern technology 	<ul style="list-style-type: none"> • computer
<ul style="list-style-type: none"> • Subtraction of whole numbers within the range 0 to 100 	<ul style="list-style-type: none"> • subtract whole numbers within the range using concrete objects • demonstrate the subtraction process of whole numbers using calculators • NB Calculators are not for daily use but for familiarisation only. 	<ul style="list-style-type: none"> • Subtraction of whole numbers 	<ul style="list-style-type: none"> • Using objects to demonstrate subtraction by taking away • Finding the difference between two numbers by matching the objects and using the number line • Using minus (-) and equal sign (=) • Subtracting using 	<ul style="list-style-type: none"> • Counters from the local environment • Charts • Number lines • Smart phones /calculator • computer

			<p>terms minus, count back, take away, from, and difference</p> <ul style="list-style-type: none"> • Solving problems on subtraction based on everyday context • Reinforcing basic subtraction facts through mental work • Playing games involving subtraction • Consolidating subtraction using calculators 	
<ul style="list-style-type: none"> • Multiplication using sets (product must not exceed 20) 	<ul style="list-style-type: none"> • count in sets of twos and fives • multiply using repeated addition • calculate the product of two numbers by counting sets • use the bracket notation to show multiplication process 	<ul style="list-style-type: none"> • Multiplication 	<ul style="list-style-type: none"> • Using sets to get products • Counting in sets of twos and fives • Solving story problems on multiplication for example (five bicycles have 10 wheels) 	<ul style="list-style-type: none"> • Charts • Smart phone • Computer • Locally available resources • Number line • Rulers • Counters
<ul style="list-style-type: none"> • Division using sharing where the shared objects must not exceed 20 	<ul style="list-style-type: none"> • find the quotient (result) by sharing equally 	<ul style="list-style-type: none"> • Division 	<ul style="list-style-type: none"> • Demonstrating division by sharing equally to promote collaboration • Using sets to 	<ul style="list-style-type: none"> • charts • smart phone • computer • rulers • counters

			demonstrate division • Solving story problems on division	• locally available resources
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8.15 (GRADE 2) MEASURES

KEY CONCEPT	OBJECTIVES Learners should be able to:	CONTENT (Skills, attitudes, knowledge) values; and	SUGGESTED ACTIVITIES	SUGGESTED RESOURCES
<ul style="list-style-type: none"> • Money up to One Dollar (\$1,00) 	<ul style="list-style-type: none"> • identify coins • give compositions of coins • calculate change 	<ul style="list-style-type: none"> • Recognition of coins up to \$1,00 • Change • Value of combination of coins up to \$1,00 • Change in buying and selling 	<ul style="list-style-type: none"> • Collecting coins up to \$1,00 • Breaking down of bigger denominations into smaller denominations diagrammatically • Singing money rhymes • Playing shop games/excursion to acquire financial literacy skills 	<ul style="list-style-type: none"> • Coins up to \$1,00 and paper coins • NB learners should not put coins in their nose and mouth
<ul style="list-style-type: none"> • Time 	<ul style="list-style-type: none"> • name days of the week 	<ul style="list-style-type: none"> • Days of the week 	<ul style="list-style-type: none"> • Singing days of the 	<ul style="list-style-type: none"> • Birthday chart

<ul style="list-style-type: none"> - Days of the week - Hour and half hour - Months of the year 	<ul style="list-style-type: none"> • tell what the present day is, the previous day and the following day • name months of the year • read and say time 	<ul style="list-style-type: none"> • Hour and half hour • Months of the year 	<ul style="list-style-type: none"> week rhymes • Listing days of the week • Using today, yesterday and tomorrow in sentences • Reciting poems on days of the week • Singing songs on months of the year • Listing months of the year • Reading time to the hour and half hourly • Illustrating the clockwise direction on the face clock • Identifying the hour hand and minute hand on the clock • Solving simple problems involving time 	<ul style="list-style-type: none"> • Calendar • Class time table • Flash cards • Clock face
<ul style="list-style-type: none"> • Mass • Compare masses using heavier and lighter 	<ul style="list-style-type: none"> • compare mass 	<ul style="list-style-type: none"> • Objects can have different masses 	<ul style="list-style-type: none"> • Making balance scales • Comparing mass of different objects and say which one is heavier or lighter 	<ul style="list-style-type: none"> • Balance scales • See-saw • Different objects in the environment eg stones, feathers

<ul style="list-style-type: none"> • Length and height can be compared using non-standard units • Perimeter • Area 	<ul style="list-style-type: none"> • compare measurements using non-standard units • compare and measure using nonstandard units • measure area by counting squares 	<ul style="list-style-type: none"> • Comparing length and heights using non-standard units • Measuring using nonstandard units • Counting squares 	<ul style="list-style-type: none"> • Measuring the lengths and heights of objects using non-standard units • Comparing the lengths and heights of objects using non-standard units • Playing game songs 	<ul style="list-style-type: none"> • Objects in the environment or example strings, trees • Digital tools • squares and triangular templates
<ul style="list-style-type: none"> • Rate • Rates on movements and performing tasks can be compared 	<ul style="list-style-type: none"> • use the words slower and faster to describe movements and performing tasks 	<ul style="list-style-type: none"> • Speed of movements and performing tasks 	<ul style="list-style-type: none"> • Comparing the rate at which learners walk, run, read and perform tasks 	<ul style="list-style-type: none"> • Objects in the environment for example pendulums, sand, stop watch • Digital tools
<ul style="list-style-type: none"> • Volume/Capacity • Compare capacity using non-standard units 	<ul style="list-style-type: none"> • compare capacity of containers using non-standard units 	<ul style="list-style-type: none"> • Non-standard units of capacity 	<ul style="list-style-type: none"> • Using non-standard measures to compare capacity and volume 	<ul style="list-style-type: none"> • Spoons • Containers • Plates • bottles

8.16 (GRADE 2) RELATIONSHIPS

KEY CONCEPT	OBJECTIVES Learners should be able to:	CONTENT (Skills, values; attitudes, and knowledge)	SUGGESTED ACTIVITIES	SUGGESTED RESOURCES
<ul style="list-style-type: none"> • Data handling 	<ul style="list-style-type: none"> • record collected data • represent data using pictures and bar graphs 	<ul style="list-style-type: none"> • Data collection and recording • Data representation 	<ul style="list-style-type: none"> • Collecting and recording data from school premises • Sorting data according to identified categories • Presenting data by creating vertical columns of colour blocks (whose heights depend on available number of blocks of each type) • Presenting collected data in rows and columns, pictures or bar graphs • Discussing which category is the most or least common 	<ul style="list-style-type: none"> • Seeds, • shapes, • colour blocks • Charts with vertical and horizontal lines • Objects around school • Digital tools

NB: The facilitator is encouraged to use resources related to pupils' culture and experiences

9 ASSESSMENT

Learners shall be assessed at school level through continuous assessment and summative assessment. These assessments shall be guided by the principles of inclusivity, practicability, authenticity, transparency, flexibility, validity and reliability. The principles are crucial for creating a supportive and effective learning environment that fosters growth and development in learners at infant school module. Arrangements, accommodations and modifications shall be visible to enable learners with special needs to access assessments.

This section covers the assessment objectives, the assessment model, the scheme of assessment and School – Based Project Assessment Scheme.

9.1 Assessment Objectives

Learners shall be assessed on their ability to:

9.1.1 recall, recognise and Use/Sign mathematical terms;

9.1.2 carry out calculations as they play and learn;

9.1.3 use traditional games, stories, songs and local environment to solve mathematical problems;

9.1.4 estimate, approximate and use appropriate degrees of accuracy;

9.1.5 interpret and apply Mathematics in life situations;

9.1.6 explore mathematical ideas and come up with conclusions;

9.1.7 apply mathematical concepts and skills for environmental sustainability;

9.1.8 demonstrate problem solving abilities in mathematics;

9.1.9 interpret and analyse tables, charts and graphs and use them in conducting simple investigations

9.2 Assessment Model

School Based Continuous Assessment shall be used for learners in ECD A and B. There shall not be any Summative assessment for ECD A and B as illustrated in Figure 1.

Grade 1 and 2 shall have both Continuous (50%) and Summative (50%) Assessments. Continuous assessment shall include recorded School Based Continuous Learning and Assessment activities marks. The mark shall be included on learners' end of term and year reports. Summative assessment shall be school tests which are at the end of the term and year.

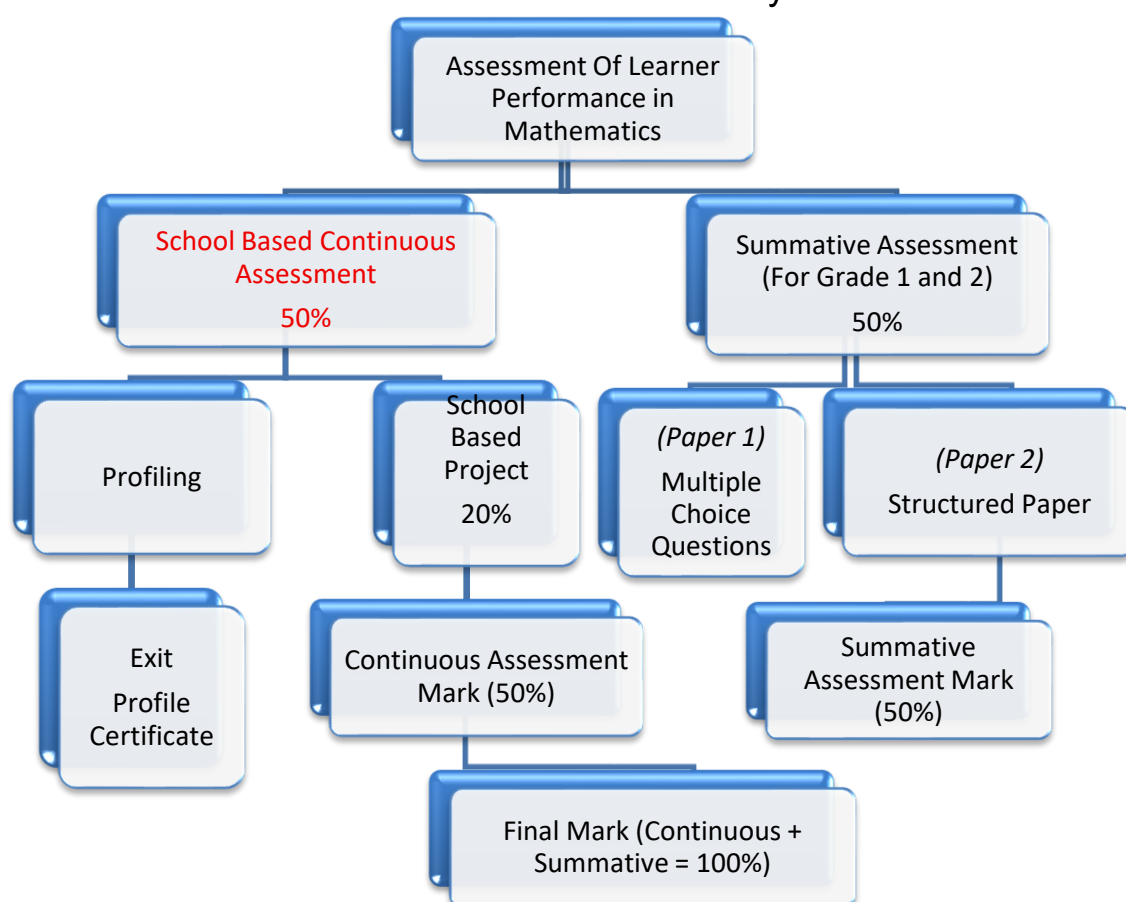


Fig. 1 Assessment Model

In addition, learners shall be profiled and learner profile records established. Learner profile certificates shall be issued at the end of Grade 2. The certification is to officially verify and validate that a pupil has acquired competences at the point of exit.

9.3 Scheme of Assessment

The table below shows the Scheme of Assessment for Grade 1 and 2 where 50% is allocated to Continuous Assessment and 50% to Summative Assessment.

FORM OF ASSESSMENT	WEIGHTING
Continuous Assessment	50%
Summative Assessment	50%
Total	100%

Of the 50% for continuous assessment, 20% shall be allocated to the School Based Project. The remaining 30% shall be for other school based continuous learning activities that learners do at school as part of formative assessment.

Both the continuous and summative assessment marks shall be recorded on the learners' reports on a termly basis.

9.4 School – Based Project Assessment Scheme

The Table given below shows the Learning and Assessment Scheme for the School Based Project.

Project Execution Stages	Project Stage Description	Timeline	Marks
1	Understanding and adoption of what is to be done according to teacher or learner theme	January - April	5
2	Exploration of the theme as guided by the teacher	May	10
3	Participation in engagement activities	June	10
4	Collecting or selecting relevant materials to use	July	5
5	Creating the project	August - September	10
6	Collaboration with others in refining the project	October	5
7	Presentation of the project	November - December	5
TOTAL			50

The assessment scheme shows the stages that shall be executed by pupils and the timeline at which each stage shall be carried out. Possible marks, totalling 50, are highlighted to indicate how much can be allocated.

9.5 Assessment Instruments

The following are suggested assessment tools:

- Checklists
- Rating Scale
- Observation Guide-Anecdotal
- Exercises
- Tests
- School based projects

9.6 Grade Level Assessment Matrix

LEVEL	FORM OF ASSESSMENT	ASSESSMENT TASKS	NATURE	FREQUENCY
INFANTS	Continuous	Assessment tasks can be School Based Projects or pen and paper activities based on the following: <ul style="list-style-type: none"> • Singing • Drawing • Dancing • Colouring • Storytelling • Speaking • Listening • Counting • Playing children's games • Chanting • Reciting • Seriating • Matching • Sorting • Writing 	Individual, or group activities	<ul style="list-style-type: none"> ✓ Daily basis ✓ Weekly ✓ Fortnightly ✓ Monthly ✓ Termly ✓ Yearly
	Summative	<ul style="list-style-type: none"> • End of month, term and year tests • Check points assessment • Classroom exercises 	Individual activities	<ul style="list-style-type: none"> ➤ Monthly ➤ Termly ➤ Yearly

9.7 Scheme of Assessment

Learners will be assessed through Continuous and Summative Assessment as shown by the table below:

Level	Form of Assessment	Weighting
ECD	Formative / Continuous Assessment	100%
GRADE 1 AND GRADE 2	Summative	50%
	Formative/Continuous Assessment	50%

9.8 Domains Weighting

The weighting of the domain to be assessed are as follows:

Domain	Continuous %
Cognitive	40
Technical	25
Social	20
Emotional	15
Total	100

