REPUBLIC OF KENYA
MINISTRY OF EDUCATION

PRE-PRIMARY CURRICULUM DESIGN

MATHEMATICS
PRE-PRIMARY 2

FOR LEARNERS WITH VISUAL IMPAIRMENT.

KENYA INSTITUTE OF CURRICULUM DEVELOPMENT

A Skilled and Ethical Society

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FOREWORD

The Government of Kenya is committed to ensuring that policy objectives for Education, Training and Research meet the aspirations of the Constitution of Kenya 2010, the Kenya Vision 2030, National Curriculum Policy 2019, the United Nations Sustainable Development Goals (SDGs) and the Regional and Global conventions to which Kenya is a signatory. Towards achieving the mission of Basic Education, the Ministry of Education (MoE) has successfully and progressively rolled out the implementation of the Competency Based Curriculum (CBC) at Pre-Primary, Primary and Junior School levels.

The implementation of Competency Based Curriculum involves monitoring and evaluation to determine its success. After the five-year implementation cycle, a summative evaluation of the primary education cycle was undertaken to establish the achievement of learning outcomes as envisaged in the Basic Education Curriculum Framework. The Government of Kenya constituted a Presidential working Party on Education Reforms (PWPER) in 2022 to address salient issues affecting the education sector. PWPER made far reaching recommendations for basic education that necessitated curriculum review. The recommendations of the PWPER, monitoring reports, summative evaluation, feedback from curriculum implementers and other stakeholders led to rationalisation and review of the basic education curriculum.

The reviewed Pre-Primary Two curriculum designs for learners with Visual Impairment build on competencies attained by learners at Pre-Primary one emphasis at this level is the development of Pre literacy. Pre numeracy and Social skills.

The curriculum design presents National Goals of Education, essence statement, general and specific expected learning outcomes for the learning area as well as strands and sub strands. The design also outlines suggested learning experiences, suggested key inquiry questions, core competencies, Pertinent and Contemporary Issues (PCIs), values, and assessment rubric.

It is my hope that all Government agencies and other stakeholders in Education will use the design to plan for effective and efficient implementation of the CBC.

HON. EZEKIEL OMBAKI MACHOGU, CBS
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PREFACE

The Ministry of Education (MoE) nationally implemented Competency Based Curriculum (CBC) in 2019. Pre-Primary Two is the second class of pre- primary level in the reformed education structure.

The reviewed Pre-Primary Two curriculum for learners with Visual Impairment furthers implementation of the CBC from Pre-Primary One. The curriculum provides opportunities for learners to focus in a field of their choice to form a foundation for further education at higher grades. This is very critical in the realization of the Vision and Mission of the on-going curriculum reforms as enshrined in the Sessional Paper No. I of 2019 whose title is: Towards Realizing Quality, Relevant and Inclusive Education and Training for Sustainable Development in Kenya. The Sessional Paper explains the shift from a content-focused curriculum to a focus on **nurturing every learner's potential.**

Therefore, the Pre-Primary Two curriculum designs for learners with Visual impairment are intended to enhance the learners' development in the CBC core competencies, namely: Communication and Collaboration, Critical Thinking and Problem Solving, Creativity and Imagination, Citizenship, Digital Literacy, learning to Learn and Self-efficacy.

The curriculum designs provide suggestions for interactive and differentiated learning experiences linked to the various sub strands and the other aspects of the CBC. They also offer several suggested learning resources and a variety of assessment techniques. It is expected that the designs will guide teachers to effectively facilitate learners to attain the expected learning outcomes for Pre-Primary Two and prepare them for smooth transition to primary level. Furthermore, it is my hope that teachers will use the
Adapted designs to make learning interesting, exciting and enjoyable.

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ACKNOWLEDGEMENT

The Kenya Institute of Curriculum Development (KICD) Act Number 4 of 2013 (Revised 2019) mandates the Institute to develop and review curricula and curriculum support materials for basic and tertiary education and training. The curriculum development process for any level of education involves thorough research, international benchmarking and robust stakeholder engagement. Through a systematic and consultative process, the KICD conceptualised the Competency Based Curriculum (CBC) as captured in the Basic Education Curriculum Framework (KICD 2017), that responds to the demands of the 21st Century and the aspirations captured in the Constitution of Kenya 2010, the Kenya Vision 2030, East African Community Protocol, International Bureau of Education Guidelines and the United Nations Sustainable Development Goals (SDGs).

KICD receives its funding from the Government of Kenya to facilitate successful achievement of the stipulated mandate and implementation of the Government and Sector (Ministry of Education (MoE) plans. The Institute also receives support from development partners targeting specific programmes. The revised Pre-Primary Two curriculum designs for learners with Visual Impairment were developed and adapted with the support of the World Bank through the Kenya Primary Education Equity in Learning Programme (KPEELP); a project coordinated by MoE. Therefore, the Institute is very grateful for the support of the Government of Kenya, through the MoE and the development partners for policy, resource and logistical support. Specifically, special thanks to the Cabinet Secretary-MoE and the Principal Secretary – State Department of Basic Education.

I also wish to acknowledge the KICD curriculum developers and other staff, all teachers, educators who took part as panelists; the Semi-Autonomous Government Agencies (SAGAs) and representatives of various stakeholders for their roles in the development and adaptation of the Pre-Primary Two curriculum designs for learners with Visual Impairment. In relation to this, I acknowledge the support of the Chief Executive Officers of the Teachers Service Commission (TSC) and the Kenya National Examinations Council (KNEC) for their support in the process of developing and adapting the designs. Finally, I am very grateful to the KICD Council Chairperson and other members of the Council for very consistent guidance in the process.

I assure all teachers, parents and other stakeholders that this curriculum design will effectively guide the implementation of the CBC at Pre-Primary Two and preparation of learners for transition to primary level.

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TABLE OF CONTENT

LESSON ALLOCATION FOR PRE PRIMARY

S/No	Activity Area	Number of Lessons per week
1.	Language Activities for learners with visual impairment	5
2.	Mathematical Activities for learners with visual impairment	5
3.	Creative Activities for learners with visual impairment	6
4.	Environmental Activities for learners with visual impairment	5
5.	Religious Activities	3
	Pastoral Instruction Programme	1
Total		**25**

OUR NEIGHBOURHOOD

- Work done by our neighbours
- Things in our neighbourhood
  - structures
  - shops/kiosks/markets
  - animals
  - Physical features
  - Plants

OUR SCHOOL

- Our teachers
- People in our school
- Our school compound
- Buildings in our schools
- Ways/road to our school

OUR MARKET

- Things found in the market
- Buying and selling
- People found at the market

ANIMALS

- Domestic animals
- Wild animals
- Importance/use of animals

WEATHER CONDITIONS

- Sunny
- Cloudy
- Rainy
- Windy

WATER

- Sources of water
- Uses of water
- Storage of water

HOSPITAL

- People in the hospital
- Buildings in the hospital
- Activities in the hospital
- Clothes worn by people in the hospital
- Tools and items used in the hospital

TIME

- Telling time through daily routine
- Days of the week
- Popular public holidays

TRANSPORT

- By foot
- By bicycles
- By boat/ship
- By motorcycle

Essence statement

Mathematical activities at the Pre-Primary level empower children to engage in basic analysis of problems and to develop appropriate solutions in day to day life. These activities have been adapted to suit the learner with visual impairment and help to develop sensory integration, mental processes that enhance logical and critical thinking, accuracy and problem solving skills; all of which are important building blocks for primary school readiness. The areas of focus include use of tactile diagrams and real objects that enhances learning and enjoyment. Digital devices with assistive technology have been used to facilitate the acquisition of the intended concept. They also enhance the learner's development and acquisition of basic pre-number, number, measurement and geometry skills during early years. It also prepares and equips the learner with skills that will enable them to handle mathematics in lower primary at ease.

General learning outcomes

By the end of the pre-primary education, the learner with visual impairment should be able to:

a) use acquired classroom skills to solve problems in daily life,
b) demonstrate basic number concepts as a basis for future learning,
c) demonstrate interest in measurement and dispositions in physical and social world,
d) demonstrate basic geometrical concepts as a basis for future learning.

SUMMARY OF STRANDS AND SUB STRANDS

S. No.	Strand	Sub Strands	Suggested Number of Lessons
1	1.0 Pre-Number Activities	1.1 Sorting and Grouping	7
		1.2 Matching and Pairing	7
		1.3 Ordering	8
		1.4 Patterns	8
2	2.0 Numbers	2.1 Rote Counting	6
		2.2 Number Recognition	8
		2.3 Counting Concrete Objects	8
		2.4 Number Sequencing	8
		2.5 Number Value	8
		2.6 Number Writing	8
		2.7 Putting Together	10
		2.8 Taking Away	8
3	3.0 Measurement	3.1 Sides of Objects	8
		3.2 Mass (Heavy and Light)	8
		3.3 Capacity (how much a container can hold)	8
		3.4 Time (Daily Routines)	8
		3.5 Money (Kenyan currency – coins)	8
		3.6 Area (Surface of Objects)	8
4	4.0 Geometry	4.1 Lines	3
		4.2 Shapes	5
Total Number of Lessons			**150**

NOTE:

The suggested number of lessons per Sub Strand may be less or more depending on the context.

THEME: OUR NEIGHBOURHOOD				
Strand	**Sub-Strand**	**Specific Learning Outcomes**	**Suggested Learning Experiences**	**Suggested Key Inquiry Question(s)**

1.0 PRE-NUMBER ACTIVITIES	**1.1 Sorting & grouping** 8 lessons	By the end of the sub-strand, the learner should be able to: a) explore different textures, sounds scents temperatures shapes and sizes for tactile discrimination, (for learner with blindness), b) explore different colours, sizes, shapes or textures for discrimination (for learners with low vision), c) identify similarities among objects in the neighbourhood for distinguishing one object from the other by colour, size or texture (for learners with low vision), d) identify similarities among objects in the neighbourhood for distinguishing one object from the other by size or texture (for learner with blindness),	• Learners with blindness are guided to manipulate rough objects to note the uneven and bumpy surface ,warm temperature and noisy effect from touching. • Learners with low vision are guided to observe different colours and note their names, different sizes to note big and small and different textures to note rough or smooth. • Learners with low vision are guided to look at and talk about objects from the neighbourhood with the same colour , same size, or texture while learners with blindness are guided to listen to descriptions of objects with the same colour. • Learners with blindness are guided to manipulate objects with similar textures and talk about how they feel bumpy or scratchy, big or small while observing safety. • Learners with low vision are guided to observe objects of different colours heaped in a container and arrange them in different boxes according to colour.	1. How can objects look similar or look alike? 2. Why are objects different? 3. Why do you group objects together?

		e) identify differences between objects found in the neighbourhood for distinguishing one object from the other by colour use, size or texture (for learners with low vision), f) identify differences among objects in the neighbourhood for distinguishing one object from the other by size or texture (for learner with blindness), g) sort and group objects found in the neighbourhood by colour, size or texture (for learners with low vision), h) sort and group objects found in the neighbourhood by size or texture, (for learners with blindness) i) appreciate the materials in the neighbourhood for	• Learners with low vision are guided to observe objects of different textures heaped in a container and arrange them in different boxes according to texture. • Learners with low vision are guided to observe objects of different sizes heaped in a container and arrange them in different boxes according to size. • In pairs, learners with blindness are guided to manipulate objects heaped in a container and pick out objects that are rough or smooth and pile them in separate containers by being given one on one demonstration and enough practice. • Learners with blindness are guided to manipulate objects heaped in a container and pick out small or big objects and put them in separate calibrated boxes or piles by being given one on one demonstration and enough practice. • In pairs, learners are guided to sing songs related to sorting and grouping objects. • In groups, learners are guided to collect and store materials in	

		their uniqueness and diversity .	their respective corners as they observe safety. • Learners are guided to sort and group objects according to more than one attribute using ICT with assistive technology devices.	

Core Competencies to be developed:

- Creativity and imagination : The learner will develop communication and self-expression as they communicate ideas, while undertaking tasks involving manipulating different objects found in the neighbourhood according to colour, size and texture for familiarisation.
- Self-efficacy: The learner will develop self-identity as they talk about similar or different items from their neighbourhood

Values:

- **Love: The learner enhances caring as they portray a caring attitude for peers by sharing materials in groups while sorting and grouping** objects.

Pertinent and Contemporary Issues (PCIs)

- Environmental education: The learner develops environmental cleanliness as they practice safe disposal of wastes generated from sorting activities

Link to other activity areas:

- Creative Activities – The learner manipulates objects they use in sorting and grouping for development of fine motor skills

Suggested learning Resources:

Locally available materials of different colours, texture, use, types and sizes such as leaves, flowers, pebbles, shells, paper cut outs, bottle tops, seeds, feathers, fruits, beads, pictures, Computers ,scrubbing pad, sandpaper, steel wool, silk clothing ribbons.

EME: OUR NEIGHBOURHOOD				
Strand	**Sub-Strand**	**Specific Learning Outcomes**	**Suggested Learning Experiences**	**Suggested Key Inquiry Question(s)**
1.0 PRE-NUMBER ACTIVITIES	**1.2 Matching and pairing** 8 lessons	By the end of the sub-strand, the learner should be able to: a) identify similarities among objects from the neighbourhood, b) identify differences among objects from the neighbourhood , c) match objects from the neighbourhood according to likeness/sameness or use, d) pair objects from the neighbourhood according to sameness/ likeness or use, e) appreciate the use of different objects from the neighbourhood.	• Learners with low vision are guided to collect a variety of objects from the neighbourhood while the learners with blindness are guided to manipulate and collect a variety of objects from the neighbourhood. • Learners with low vision are guided to observe a variety of objects from the neighbourhood in order to note key features that make them look like any other object. • Learners with blindness are guided to identify key features of the objects collected from the neighbourhood. • Learners are guided to demonstrate how to match and pair objects from the neighbourhood according to likeness, sameness and use.	1. How can we match and pair objects? 2. Why do we match and pair objects?

			• In pairs, learners are guided to match and pair objects from the neighbourhood according to more than one attribute (sameness/ likeness or use) • Learners are guided to talk about the use of items matched or paired. • Learners sing songs/recite poems on relationship/use of objects from the neighbourhood. • Learners are guided to match and pair objects according to more than one attribute using ICT devices with assistive technology. Learners with blindness to listen to a verbal description of the video on matching and pairing of objects.	
Core Competencies to be developed: • Learning to learn: The learner works collaboratively as they are given orientation of the environment to collect different types of safe objects from the immediate environment.				
Values: • Love: The learner enhances caring as they portray a caring attitude towards one another while moving in the environment in pairs with sighted peers to pair and match different objects.				

Pertinent and Contemporary Issues (PCIs): • Health promotion issues: The learner develops habits on safety and hygiene.
Suggested learning Resources: Locally available materials (pens, books, sticks, shapes, cut-outs, blocks, clothing, utensils, pebbles, balls, flash cards).

THEME: OUR NEIGHBOURHOOD				
Strand	**Sub-Strand**	**Specific Learning Outcomes**	**Suggested Learning Experiences**	**Suggested Key Inquiry Question(s)**
1.0 PRE-NUMBER ACTIVITIES 8 Lessons	**1.3 Ordering**	By the end of the sub-strand, the learner should be able to: a) collect different objects from the neighbourhood for exploration , b) arrange objects from the neighbourhood according to size in ascending order up to ten objects for comparison., c) arrange objects from the neighbourhood according to size in descending order, d) appreciate different objects or materials from the neighbourhood.	• Learners with low vision are guided to observe safety as they collect play materials from the neighbourhood while being given cues on location of objects. • Learners with blindness are guided to observe safety when walking in order to collect play materials from the neighbourhood by being given verbal cues on location. • Learners with low vision are guided to observe or manipulate different objects in the neighbourhood in relation to size. • Learners are guided to demonstrate ordering up to five objects according to size in ascending order. • In pairs, learners are guided to demonstrate ordering objects according to size in	1. Why do we say some objects are bigger? 2. Why do we say some objects are smaller?

			descending order up to five objects. • Learners are guided to compare objects of different sizes up to five. • Learners with low vision are guided to draw big and small objects using ICT devices with assistive technology ,while learner with blindness is guided to listen to an audio clip mentioning big and small objects or listen to songs talking about big and small objects. • Learners are guided to arrange objects in ascending and descending order using ICT devices with assistive technology or other resources .	
Core Competencies to be developed: • Creativity and Imagination: The learner develops flexibility as they match and pair objects according to size, colour, shape, and texture, quickly changing pairs when outcome is not suitable.				
Values: • Unity: The learner develops compassion as they work together in groups to accomplish the task of ordering play objects				

Pertinent and Contemporary Issues (PCIs): • Safety: The learner develops emotional awareness as they avoid self-harm as they move safely in the neighborhood**.**
Link to other activities areas: • Creative activities: The learner manipulates play objects as they order for fine motor growth..
Suggested learning Resources: Flash cards, blocks, bottle tops, bottles, sticks, beads, straws, cut outs, pebbles, Pencils, books, crayons, paint, paper cut-outs, leaves.

THEME: OUR NEIGHBOURHOOD				
Strand	**Sub-Strand**	**Specific Learning Outcomes**	**Suggested Learning Experiences**	**Suggested Key Inquiry Question(s)**
1.0 PRE-NUMBER ACTIVITIES	**1.4 Patterns** 8 lessons	By the end of the sub-strand, the learner should be able to: a) recognise objects from the neighbourhood for the purpose of identifying patterns(clothes, animals, seeds, leaves), b) identify similarities among objects in the neighbourhood, c) identify differences among objects in the neighbourhood, d) arrange objects from the neighbourhood to make a pattern, e) enjoy making different patterns with objects from the neighbourhood .	• Learners are guided to take a walk in the environment while observing safety and talk about different objects observed or manipulated from the neighbourhood. • Learners are guided to talk about similarities among objects in the environment. • Learners are guided to talk about differences among objects in the environment . • Learners with low vision are guided to arrange objects from the neighbourhood to make a pattern on a contrasting surface while learner with blindness is guided to work within an embossed boundary with guidelines to make patterns from the environment. • Learners with blindness are guided to trail tactile patterns in order to identify missing pieces from them and	1. How do things look alike? 2. Why do things look alike?

			complete the pattern by using matching pieces while learners with low vision fill in the missing objects in a series to make a pattern with appropriate colour contrast.. • Learners perceives and talks about different patterns on their clothes, buildings, and flower gardens. • Learners are guided to draw different shapes using ICT devices with assistive technology to make patterns. • Learners are guided to play games involving making patterns using other adaptive resources.	

Core competencies to be developed:

- Digital literacy: The learner is guided to manipulate digital devices with assistive technology to access adapted applications and use them to make patterns.

Pertinent and Contemporary Issues (PCIs):

- Safety: The learner enhance safety in the neighbourhood as they to arrange safe objects to make patterns and safely dispose waste as they make patterns .

Values: ● Respect - The learner exercise patience while making patterns
Link to other activity areas: Psychomotor and Creative activities is reinforced during construction
Suggested learning Resources: Number flash cards/charts/calendar, clay, plasticine, number lines, number bags, number cut outs, fishing basket and rod, flannel boards, bottles

Suggested Assessment Rubrics:

Level / **Indicator**	**Exceeds Expectations**	**Meets Expectations**	**Approaches Expectations**	**Below Expectations**
Ability to: a) sort and group objects from their neighbourhood according to different attributes. b) match or pair objects from their neighbourhood. c) order play items by different attributes. d) make patterns with different play objects found in the environment.	The learner demonstrates the four skills.	The learner demonstrates three skills.	The learner demonstrates two skills.	The learner demonstrates one skill or none.

THEME: OUR SCHOOL				
Strand	**Sub-Strand**	**Specific Learning Outcomes**	**Suggested Learning Experiences**	**Suggested Key Inquiry Question(s)**
2.0 NUMBERS	**2.1 Rote counting** 8 Lessons	By the end of the sub-strand, the learner should be able to: a) rote count numbers 1-30 for developing numeracy skills, b) rote count numbers using actions up to 30 for enhancing acquisition of numeracy , c) enjoy rote counting in their daily life.	● Learners are guided to rote count numbers 1-30. ● Learners are guided to rote count numbers 1-30 using actions like clapping, nodding, jumping, skipping, hopping. ● Learners with blindness are guided to do the actions by being given one on one demonstration and verbal cues such as move your head up and down . ● In groups, learners perform singing games or rhymes related to rote counting. ● Learners are guided to listen to radio or television educational	1.How can you count as you clap, nod ,jump, skip, hop ? 2.How else Can you count 1 – 30 using actions?

			programmes on rote counting. Learners are guided to watch video clips or listen to audio clips on rote counting with actions.	

Core competencies to be developed:

- Communication and collaboration : The learner develop teamwork as they contribute to group decision making by participating in clapping activities on cue from one member.

Values:

- Love : The learner enhances love as they put the interest of others first by allowing peers to take lead roles in singing games.

Pertinent and Contemporary Issues (PCIs):

- Chaplaincy: Appreciating others is enhanced as learners observe turn taking in rote counting.

Link to other activity areas:

- Creative activities: The learner reinforces the skill of singing songs, reciting rhymes and using actions while counting numbers 1-30

Suggested learning Resources:

Number flash cards/charts/calendar, clay, plasticine, number lines, number bags, number cut outs, fishing basket and rod, flannel boards, bottles

THEME: OUR SCHOOL				
Strand	**Sub-Strand**	**Specific Learning Outcomes**	**Suggested Learning Experiences**	**Suggested Key Inquiry Question(s)**
2.0 NUMBERS	**2.2 Number recognition** 8 Lessons	By the end of the sub-strand, the learner should be able to: a) use braille dots to practise tracking from left to right in readiness for number recognition, b) use print material to practise tracking from left to right in readiness for number recognition, c) identify numerals 1-20 for enhancement of acquisition of formation of number symbols, d) arrange print/braille number flash cards 1-20 for development of symbolic	• Learners with blindness are guided to position the index finger on raised dots and move them from left to right to recognize the dot number and the number formed by the dots. • Learners with low vision practice eye tracking by placing their finger under print material and following the finger with the eye as per learner's individual visual need. • Learners with low vision are guided to position self as per individual need to observe and read numerals on number flash cards or number charts. Learners with blindness are guided sit appropriately to manipulate braille symbols on braille number cards. • Learners with low vision are guided to identify numbers on flashcards or charts with appropriate font and colour contrast 1-20. Learners with blindness are guided to manipulate braille cards with number symbols and identify braille number symbols 1-20.	1. How many numbers can you see on the chart/ flashcard? 2. Why do we arrang e numbers?

		representation of numbers, e) appreciate the use of numbers and develop curiosity for numbers in daily life experiences.	• Learners are guided to identify print/braille numbers found on different objects in the school. • In groups, learners are guided to match numbers that look alike. • In pairs, learners with low vision are guided to play number recognition games such as (fishing game, domino games, skittle game, snake and ladder games, treasure hand, post office game). • Learners with blindness are guided to play braille number recognition games such as(number line sticky game) • Learners with low vision are guided to arrange print/braille number flashcards 1-20. • Learners are guided to form numbers, type number symbols, identify number numerals using ICT devices with assistive technology or other resources.	
Core Competencies to be developed: ● Learning to learn: The learner develops problem-solving skills by independently selecting numbers that look alike.				
Values: ● Unity : The learner develops teamwork in groups as they take turns in recognizing numbers on flash cards.				
Pertinent and Contemporary Issues (PCIs):				

• Peer education and mentorship: The learners enhances talent identification as they sing songs and recite rhymes on numbers.
Link to other activity areas: • Creative activities :The learner reinforces the skill of singing and dancing to songs involving numbers.
Suggested Resources: Number flash cards/charts/calendar, clay, plasticine, number lines, number bags, number cut outs, fishing basket and rod, flannel boards, bottles

THEME: OUR SCHOOL				
Strand	**Sub-Strand**	**Specific Learning Outcomes**	**Suggested Learning Experiences**	**Suggested Key Inquiry Question(s)**
2.0 NUMBERS	**2.3 Counting concrete objects** 8 lessons	By the end of the sub-strand, the learner should be able to: a) squeeze and release items for finger dexterity , a) count concrete objects found in school 1-20 for developing numeracy skills , b) demonstrate one to one correspondence while counting concrete objects found in school, c) appreciate the use of one to one correspondence in real life.	• Learners are guided to find concrete objects in the school environment. • Learners with blindness are guided to count and separate objects already counted and those to be counted . • Learners with low vision to be guided to sit in preferential position to access all counting items in readiness to count. • Learners are guided to count concrete objects by being given one on one demonstration on picking the objects one by one as they count 1-20. • Learners are guided to count concrete objects in their class up to 20. • Learners play counting games involving counting objects found in school 1-20	1. How do we count objects? 2. Why do we match objects?

			• Learners to count concrete objects found in school from 1-20 using ICT devices with assistive technology or other adaptive resources. • Learners are guided to play adapted video games on counting concrete objects.	
Core Competencies to be developed: ● Critical thinking: The learners demonstrate objective ideas as they count and match concrete objects to their corresponding number.				
Values: • Unity: The learner enhances cooperation by taking turns in counting concrete objects				
Pertinent and Contemporary Issues (PCIs): • Environmental Education and Climate Change : The learner demonstrates cooperation as they practise healthy habits and restraint in destroying plants while collecting objects for counting.				
Link to other activity areas: • Creative Activities - The learner practises manipulation skills when handling concrete objects as they count 1-20.				
Suggested Resources: Bottle tops, pencils, books, sticks, pebbles, tables, rubbers, wood/block blocks				

THEME: OUR SCHOOL				
Strand	**Sub-Strand**	**Specific Learning Outcomes**	**Suggested Learning Experiences**	**Suggested Key Inquiry Question(s)**
2.0 NUMBERS	**2 .4 Number sequencing** 8 Lessons	By the end of the sub-strand, the learner should be able to: a) identify number symbols 1-20 for acquisition of numeracy skills b) arrange number cards in sequence 1-20 for appreciation of increase in value c) arrange number cards 1-20 in sequence by completing missing numbers d) enjoy arranging numbers in sequence in day to day experiences .	• Learners with low vision are guided to randomly pick number cut outs or number cards with appropriate colour contrast font size and type from a pile and identify the number 1-20. • Learners with blindness are guided to randomly pick a braille number card from a pile and identify number 1-20. • Learners are guided to arrange numbers 1-20 in sequence by placing the appropriate number cards or cut outs one after the other. • Learners share number cards or cut-outs and complete missing numbers in sequence by placing the appropriate number cards or cut - outs • Learners sing songs involving number sequences comprising numbers 1-20. • Learners to complete number puzzles using ICT devices with assistive technology.	1. How can we write numbers? 2. Why do we write numbers? 3. Why do we prepare to write.
Core Competencies to be developed: • Critical thinking and problem solving: The learner develops reflection skills as they observe number cards arranged sequentially.				

Values: • Love : The learner demonstrates sharing number cut-out and cards in groups while sequencing numbers.
Pertinent and Contemporary Issues (PCIs): • Self-esteem: The learner enhances confidence while singing songs on number sequence and receiving encouraging feedback.
Link to other subjects: • Creative Activities : The learner reinforces movement skills while singing songs on number sequence comprising numbers 1-20
Suggested learning Resources: Flash cards, charts, number cut outs, calendars, number line

THEME: OUR SCHOOL				
Strand	**Sub-Strand**	**Specific Learning Outcomes**	**Suggested Learning Experiences**	**Suggested Key Inquiry Question(s)**
2.0 NUMBERS	**2.5 Number Value** 8 Lessons	By the end of the sub-strand, the learner should be able to: a) collect objects from the school environment, b) count groups of objects collected from the school environment and select the corresponding number symbol, c) relate the number value of groups of objects in the school environment, d) appreciate the value of numbers in their daily life experiences.	• Learners with low vision are guided to observe safety while collecting concrete objects from the school environment. • Learners with blindness are given orientation of the school environment to observe safety while collecting concrete objects. • Learners with low vision are guided to demonstrate relating number symbols and their values. • Learners with blindness are guided to relate number symbols and their values using braille number cards. • In groups, learners are guided to count concrete objects and relate them to the number symbol. • Learners are guided to complete number value puzzles. • Learners are guided to match and pair number	1. How are our items counted? 2. How can we group items?

			symbols with corresponding quantities of objects using ICT devices or other rources.	

Core Competencies to be developed:

- Critical thinking and problem solving: The Learner demonstrates the skill of following simple instructions while matching the objects to its correspondence number symbol.

Value:

- Responsibility: The learner enriches determination as they collect materials from the school environment.

Pertinent and Contemporary Issues (PCIs):

- Self-esteem: The learner enhances resilience as they relate number symbols to their values repeatedly.

Link to other activity areas:

- Environmental activities: The learner practises environmental hygiene as they clean the school compound , as they collect materials from the school environment

Suggested learning Resources:

Counters, realia classroom objects, flash cards, models, number charts, objects in the environment, toys

THEME: OUR SCHOOL				
Strand	**Sub-Strand**	**Specific Learning Outcomes**	**Suggested Learning Experiences**	**Suggested Key Inquiry Question(s)**
2.0 **NUMBERS**	**2.6 Number writing** 8 lessons	By the end of the sub-strand, the learner should be able to: a) recite braille dots denoting numbers up to 20 for reinforcement of muscle memory (for leaner with blindness), b) sing songs defining shapes of numbers for reinforcement of muscle memory (For learner with low vision), c) identify number symbols up to 20 for association of spoken number and its symbolic representation, d) form number symbols 1-20 on a surface for representing quantities of	• Learners with blindness are guided to recite braille dots denoting numbers 1 up to 20 repeatedly. • Learners with low vision are guided to sing songs on number formation up to 20 repeatedly. • Learners with blindness are provided with boards with different textures, and attached braille numbers using various materials like fabric, sandpaper and be encouraged to explore and feel the different textures. • In pairs, learners are guided to identify number formation from number cut outs up to 20. • Learners with low vision are guided to trace, model, thread, join dots or colour number cut-outs up to 20 ,while learners with blindness are guided to model pegs fix them on a peg board to form the numeral sign and braille number symbols up to 20.	1. How do we form number symbols

		objects(for learner with low vision), e) form braille number symbols 1-20 on a peg board for representing quantities of objects,(for learner with blindness), f) display correct body posture in readiness for writing, g) write number symbols 1-20 on a surface for enjoyment, h) form number symbols 1-20 using ICT with assistive technology for digital literacy, i) appreciate the use of numbers within their school environment.	• Learners are guided to write number symbols 1-20 on a surface. • Learners are guided to use number symbols found on materials in their school environment such as calendar to tell date . • Learners are guided to use ICT with assistive technology or other resources to form number symbols 1-20 or play games involving number symbol formation.	
Core Competencies to be developed: • Creativity and Imagination: The learners develop decision making skills as they choose modeling materials that would best form numbers or pegs.				
Values:				

• Respect (patience): The learner shows positive regard to others while working in groups or pairs forming numerals 1-20.
Pertinent and Contemporary Issues (PCIs): • Environmental education and Climate Change : The learner wipes tables and chairs, pick waste papers in and outside classroom and throwing in dustbins as they form numerals 1-20 in different ways
Link to other activity areas: • Creative activities: The learner practices tracing , modeling , threading , joining dots or colouring number cut-outs up to 20.
Suggested learning Resources; Calendar, plasticine, pebbles, clock face, number charts, number flashcards,

THEME: OUR SCHOOL				
Strand	**Sub-Strand**	**Specific Learning Outcomes**	**Suggested Learning Experiences**	**Suggested Key Inquiry Question(s)**
2.0 NUMBERS	**2.7 Putting together** 10 Lessons	By the end of the sub-strand, the learner should be able to: a) identify sets of similar objects in the school environment for counting, b) collect different groups of similar objects in school for counting, c) put similar objects together with a sum not exceeding 9, d) enjoy the activities of putting together objects in their day to day life experiences.	• Learners are guided to observe/manipulate and talk about similar objects within the school environment. • Learners are guided to put similar objects together with a sum not exceeding 9 and count. • In groups, learners are guided to sing songs related to putting together with sums not exceeding 9. • Learners are guided to count and put together objects to get sums of not more than nine (9) using ICT devices with assistive technology or other resources. • Learners to listen to or watch adapted video programmes on the concept of putting together.	1. How many objects are there altogether? 2. How do we put objects together?

Core competencies to be developed:

- Collaboration and communication: Listening skills are developed as the learner talk to each other in group activities involving putting objects together with a sum not exceeding 9 and count.

Values:

- Responsibility: The learner demonstrates a sense of fairness and equity in the counting process, ensuring that each object is considered equally valuable.

Pertinent and Contemporary Issues (PCIs):

- Safety and Security: The learner ensures self-care as they safely put two groups of objects together and counts to get the total .

Link to other activity areas:

- Environmental activities: The learner enhances a safe environment as they collect concrete objects from the environment which they use to put together

Suggested learning Resources;

Number cut outs, number charts, puzzle pieces, counters, sticks and wood/plastic blocks.

THEME: OUR SCHOOL				
Strand	**Sub-Strand**	**Specific Learning Outcomes**	**Suggested Learning Experiences**	**Suggested Key Inquiry Question(s)**
2.0 NUMBERS	**2.8 Taking away** 8 Lessons	By the end of the sub-strand, the learner should be able to: a) Collect different groups of similar concrete objects from the school environment. b) count concrete objects in different groups to establish the number in each groups c) take away concrete objects from groups not more than 9 d) count the number of the remaining concrete objects after taking away e) enjoy the activities of taking away concrete objects and counting the remainders in the day to day life experiences.	• In pairs, learners are guided to collect different groups of similar objects and set them up in the intended learning area. • Learners are guided to count concrete objects up to 9 in different groups. • Learner are guided to pick one by one objects from a pile not exceeding 9 and count what remains after picking. • Learners are guided to take away all objects in each group and notice "nothing" remains (zero) . • Learners are guided to sing songs or poems related to taking away. • Learners are guided to count and take away objects from sets of objects not more than nine (9) using ICT devices with assistive technology. • Learners are guided to listen to and watch audio visual clips	1. How many objects are in the groups? 2. How many objects are left after taking away?

			programmes on the concept of taking away.	

Core competencies to be developed:

- Collaboration and communication: Listening skills are developed as the learner talk to each other in group activities involving putting objects together with a sum not exceeding 9 and count.

Values:

- Responsibility: The learner demonstrates a sense of fairness and equity in the counting process, ensuring that each object is considered equally valuable.

Pertinent and Contemporary Issues (PCIs):

- Safety and Security: The learner safely puts two groups of objects together and counts to get the total.

Link to other activity areas:

- Environmental activities: The learner gains manipulative skills as they collect concrete objects from the environment which they use to put together

Suggested learning Resources;

Number cut outs, number charts, puzzle pieces, counters, sticks and wood/plastic blocks.

Suggested Assessment Rubrics:

Level Indicator	Exceeds Expectations	Mets Expectations	Approaches Expectations	Below Expectations
Ability to: a) rote count numbers 1-30 b) recognize number symbols from 1-20 in different contexts c) count concrete objects used by family members. d) order numbers in sequence from 1-20 e) relate number value to objects in the school f) write number symbols 1-20 environment. g) put similar objects together with a sum not exceeding 9 h) count the number of the remaining concrete objects after taking away	The learner demonstrates the eight skills.	The learner demonstrates five to seven skills.	The learner demonstrates three to four skills.	The learner demonstrates at most two skills.

THEME: OUR MARKET				
Strand	**Sub-Strand**	**Specific Learning Outcomes**	**Suggested Learning Experiences**	**Suggested Key Inquiry Question(s)**
3.0 MEASUREMENT	**3.1 Sides of objects** 8 Lessons	By the end of the sub-strand, the learner should be able to: a) observe different concrete objects/models of concrete objects found in the market for purpose of identifying their sides, b) count different sides of concrete objects or models identified, c) compare different sides of objects/models found in the market (long, short), enjoy measuring sides of objects/models using arbitrary units.	• Learners with low vision are guided to observe and talk about different sides of objects or models of concrete objects found in the market. Learners with blindness are given verbal descriptions of different objects found in the market, where possible learners are guided to manipulate concrete objects to identify their sides. • Learners with low vision are guided to compare objects or models of concrete objects found in the market (long, short objects). Learners with blindness are guided to manipulate long, short objects found in the market and compare them. • Learners are guided to compare sides of objects or models of objects found in the market. • Learners with low vision demonstrates comparing sides of objects or models of objects found in the market. Learners with blindness is guided to manipulate a variety of objects and demonstrate comparing sides of objects or models of objects found in the market.	1. Which of these sides is long or short? 2. How will you tell which side is longer or shorter?

			• Learners with low vision is guided to position self in preferential visual range in order to measure sides of objects or sides of models of objects found in the market using arbitrary units (hand - span, foot, sticks). Learners with blindness are orientated on how to position themselves appropriately in order to measure and be given one on one demonstration on how to measure different length. Learners watch or listen to audio visual clips with assistive technology on measuring sides of objects using arbitrary units.	
Core Competencies to be developed: • Learning to learn: The learner develops self-discipline as they work to determine that different sides of objects differ in size and show appreciation.				
Values: • Love: The learner shows compassion by putting others' interest before their own by waiting their turn as they measure sides of objects.				
Pertinent and Contemporary Issues (PCIs): • Child care : The learner develops self-care as they observe safety when manipulating concrete objects while counting their sides.				
Link to other activity areas: • Language activities: The learner acquires practice of vocabularies such as long or short.				
Suggested learning Resources; Objects of different lengths such as sticks, chairs, tables, books, pencils, pieces of paper, strings, body parts, objects in the class, models of objects found on the market.				

THEME: OUR MARKET				
Strand	**Sub-Strand**	**Specific Learning Outcomes**	**Suggested Learning Experiences**	**Suggested Key Inquiry Question(s)**
3.0 MEASUREMENT	**3.2 Mass (heavy and light)** 8 lessons	By the end of the sub-strand, the learner should be able to: a) identify objects found on the market, b) lift different objects found on the market for comparing their heaviness, c) appreciate objects found on the market of different masses.	• Learners are guided to talk about objects found in the market by naming them, describing them and stating where they are found. • Learners are guided to lift different heavy and light objects and note the ones that are difficult to lift and easy to lift. • Learners are guided to compare heaviness or lightness of different objects found on the market by naming the ones that are difficult to lift. • Learners are guided to play adapted games involving lifting of heavy and light objects (play on a seesaw; back to back lifting). Learners with blindness to be paired by sighted guides when playing play on a seesaw; back-to-back lifting. • Learners are guided to watch or listen to audio visual clips with assistive technology on	1. Which object is heavy or light? 2. How can you tell the object is heavy or light?

			comparison of heavy and light objects.	
Core Competencies to be developed: • Learning to learn : The learner develops relationships as they play games and lift different objects sharing what they have learnt.				
Values: • Integrity : The learner develops accountability as they utilise resources provided prudently.				
Pertinent and Contemporary Issues (PCIs): • **Safety:** The learner observes personal safety and security as they lift objects safely.				
Link to other activity areas: • Creative activities: The learner develops motor memory as they practise lifting different objects.				
Suggested learning Resources; Sand, bottles of water, stones, woodblocks, chairs, tables, fruits				

THEME: OUR MARKET				
Strand	**Sub-Strand**	**Specific Learning Outcomes**	**Suggested Learning Experiences**	**Key Inquiry Question(s)**
3.0 MEASUREMENT	**3.3 Capacity (how much a container can hold)** 8 Lessons	By the end of the sub-strand, the learner should be able to: a) fill and empty different containers using water or sand, b) identify how many small containers fill a big one. (up to 20 counts), c) compare containers according to how many small ones can fill a big one, c) enjoy filling and emptying containers in the environment.	• Learners are guided to fill and empty small and big containers using sand or water. Learners with blindness are given one on one demonstration to fill the containers and feel the level of sand or water in the containers. • Learners with low vision fill and empty and fill big and small containers using water and sand and tell how many small ones can fill a big one and vice versa. (up to 20 counts). Learners with blindness are given one on one demonstration on how to feel and empty containers. Learners with blindness to use sand because it is easy to feel its level in a container. • Learners with low vision are guided to use highlighted containers with contrasting coloured liquid to tell how much a container can hold compared to another one of a different size while learners with blindness are guided to manipulate containers of different sizes and tell how much a container can hold compared to another one of a different size .	How do we find a container that holds more?

			• Learners are guided to watch or listen to audio visual clips with assistive technology on filling and emptying containers of different sizes.	
Core Competencies to be developed: ● Critical thinking and problem solving :The learner acquires active listening and communication skills as they follow simple instructions to solve and seek help when need be, to complete tasks.				
Values: • Integrity : The learner develops reliability as they fill and empty containers using water and sand not to let it spill off and owning up if they do so.				
Pertinent and Contemporary Issues (PCIs): ● Safety & security: The learner develops Safety & security on Personal Space as they seek consent for appropriate contact during one on one demonstrations.				
Link to other activity areas: • Environmental activities: The learner acquire practice on interacting with water and soil as they play filling and emptying containers				
Suggested learning Resources; Containers of various sizes, water sand, seeds				

THEME: OUR MARKET				
Strand	**Sub-Strand**	**Specific Learning Outcomes**	**Suggested Learning Experiences**	**Suggested Key Inquiry Question(s)**
3.0 MEASUREMENT	**3.4 Time (Daily routines)** 8 lessons	By the end of the sub-strand, the learner should be able to: a) identify areas with shadows at different times of the day, b) compare sizes of shadows at different times of the day to determine their sizes, c) use vocabulary related to time for effective communication. (morning, noon, evening), d) appreciate the use of clock, calendar and watches as tools of telling time.	• Learners with low vision use preferential viewing position to observe sizes of shadows at different times of the day. Learners with blindness are given verbal description of shadows in terms of the size and direction basing on the position of the sun and relate it to different times of the day (morning, noon, evening). • Learners with low vision are guided to compare sizes of shadows at different times of the day as experienced. Learners with blindness to compare sizes of shadows basing on the verbal description given. • Learners are guided to talk about vocabulary related to time (morning ,noon, evening) • Learners are guided to talk about tools used to tell time such as clock , calendar, and watches. • Learners are guided in naming days of the week and months of the year.	1. How do we tell time at home or school?

			• Learners are guided to watch or listen to an audio visual clip on activities in a market. Learners with blindness to be given verbal descriptions of phenomena that require the use of sight.	

Core Competencies to be developed:

- Citizenship: The learner develops responsible, ethical and socially connected individuals when they work in groups to talk about times of the day and respect others activities during different times .

Values:

- Social Justice : The learner develops equity as they share flashcards or braille cards of days of the week while arranging equitably..

Pertinent and Contemporary Issues (PCIs):

- Learner Support Programme :The learner develops time management as they talk about the usefulness of the activities they do at different times of the day.

Link to other activity areas:

- Language activities: The learner develops vocabulary related to time (morning, noon, evening).

Suggested learning Resources;

Clock face, pictures, picture cut outs, watch, radio, mobile phones, calendars, shadow positions at different times of the day

THEME: OUR MARKET				
Strand	**Sub-Strand**	**Specific Learning Outcomes**	**Suggested Learning Experiences**	**Key Inquiry Question(s)**
3.0 MEASUREMENT	**3.5 Money (Kenyan currency) coins.** 8 Lessons	By the end of the sub-strand, the learner should be able to: a) interact with types of Kenyan currency for familiarity (ksh.1, ksh.5, ksh.10, ksh.20), b) identify Kenyan currency coins for distinguishing one coin from the other, c) count money in one Kenyan shilling coins up to 20, d) appreciate the use of Kenyan currency in their daily life.	• Learners with low vision are guided to position themselves in preferential viewing position in order to look at sh.1,sh.5,sh.10,sh.20. Learners with blindness are guided to explore sh.1,sh.5,sh.10,sh.20 counts to identify their distinguishing features such as the size. • In groups, learners are guided to make model Kenyan currencies • Learners are guided to talk about features of different coins in Kenyan currency. (sh.1,sh.5,sh.10,sh.20) • Learners are guided to listen to cues and pick out a coin from a group of coins. • Learners are guided to count Ksh.1 coins up to 20. • Learners are guided to watch or listen to an audio visual clip of different Kenyan currency coins using digital devices with	1. What can you see on the coin? 2. Which coins look alike?

			assistive technology or role play using coins in the classroom shop.	
Core Competencies to be developed: • Critical thinking and problem solving :The learner develops as they count Kenyan currency coins sh.1 up to 20.				
Values: • Responsibility: The learner develops compassion as they take turns as they count Kenyan currency coin				
Pertinent and Contemporary Issues (PCIs): • Financial literacy : The learner develops as they identify Kenyan currency coins for distinguishing one coin from the other.				
Link to other activity: • Language activities: The learner develops and acquires new vocabulary related to different coins in Kenyan currency. (sh.1,sh.5,sh.10,sh.20)				
Suggested learning Resources; Coins(sh.1,sh.5,sh.10,sh.20), tins, boxes, papers pencils, shop corner				

THEME: OUR MARKET				
Strand	**Sub-Strand**	**Specific Learning Outcomes**	**Suggested Learning Experiences**	**Suggested Key Inquiry Question(s)**
3.0 MEASUREMENT	**3.6 Area (surfaces of objects)** 8 Lessons	By the end of the sub-strand, the learner should be able to: a) observe objects found in the market with different surfaces for determining their sizes, *(learners with low vision)* b) manipulate different surfaces of models of objects found in the market, *(learners with blindness)* c) identify surfaces of different objects found in the market, d) cover surfaces of different objects by using not more than 20 smaller similar objects, e) use appropriate vocabulary related to surfaces of objects (large or small) for effective, communication f) appreciate different surfaces of objects found in the market.	• Learners with low vision are guided to observe different surfaces of models of objects found in the market .(tables, chairs, stools). Learner with blindness are guided to tactually experience the whole surface of different surfaces by touching and listening to verbal .descriptions of the surfaces. • Learner is guided to move in a safe environment and identify different surfaces found in the market. Learners with blindness are paired with sighted guides to support in mobility during the activity. • Learners are guided to talk about how different surfaces of objects found in the market look alike or are different. Learners with blindness are given verbal descriptions on aspects of colour. • Learners with low vision are guided to identify smaller models of items found in the market to cover larger surfaces. Learners with blindness are guided to do so by being given	1. How many small pieces can cover a given surface? 2. Which surface is large or small? 3. What else can we use to cover a given surface?

			one on one demonstration of placing the smaller items on larger items. (stool, chair, table) found in the market using smaller objects. (bottle tops, small blocks) • Learners with low vision are guided to shade or colour surfaces of drawn objects using digital devices with assistive technology. Learners with blindness are guided apply different textures on different surfaces.	
Core competencies to be developed: • Critical thinking and problem solving: The learner develops self-reflection as they cover different surfaces and find out pieces that can cover a surface and compare their findings.				
Values: • Love: The learner develops hospitality as share materials as they cover surfaces of different objects and allow others in their working area.				
Pertinent and Contemporary Issues (PCIs): • Safety: The learner develops safety and security in the playground as they use smaller objects safely.				
Link to other activity areas: • Environmental activities: The learner develops use of small objects from the environment to cover surfaces of objects				
Suggested learning Resources Pieces of paper, bottle tops, hands, feet, wood/plastic blocks.				

Suggested Assessment Rubrics:

LEVEL / INDICATOR	Exceeds Expectations	Meets Expectations	Approaches Expectations	Below Expectations
Ability to: a) compare different sides of objects/models found in the market (long, short), b) identify objects found on the market c) compare containers according to how many small ones can fill a big one d) compare sizes of shadows at different times of the day to determine their sizes e) interact with types of Kenyan currency for familiarity (ksh.1, ksh.5, ksh.10, ksh.20), f) identify surfaces of different objects found in the market,	The learner demonstrates six skills.	The learner demonstrates five skills.	The learner demonstrates two-four skills.	The learner demonstrates one skill or none.

THEME: OUR MARKET				
Strand	**Sub-Strand**	**Specific Learning Outcomes**	**Suggested Learning Experiences**	**Suggested Key Inquiry Question(s)**
4.0 GEOMETRY	**4.1 Lines** 2 lessons	By the end of the sub-strand, the learner should be able to: a) identify lines (straight, wavy and zig zag) on concrete objects found in the market, b) form lines (straight, wavy and zig zag) by - arranging up to 20 concrete objects one after the other, modeling, joining dots, c) enjoy forming lines using concrete objects found in the market.	• Learners with blindness are guided to trail embossed lines and talk about them while learners with low vision are guided to look at different lines and talk about them. • Learners with low vision are guided to observe objects with lines in a model market and talk about the lines. Learners with blindness are given vivid verbal description of types of lines found on different objects to identify and talk about the lines. • Learners with low vision make straight lines by arranging up to 9 concrete objects one after the other from left to right. Learners with blindness are guided to arrange concrete objects within a given boundary one after the other to form a straight line. • Learners are guided to use clay to model straight lines by being given one on one demonstration.	1. How are lines identified? Why are lines important?

			• Learners with low vision are guided to look at wavy lines and make wavy lines using clay sticks or thread or join provided dots that form wavy lines. Learners with blindness are guided to manipulate embossed wavy lines and then use clay sticks or thread or join provided dots that form wavy lines. • Learners to watch or listen to audio visual clips of children singing while moving on straight and wavy lines. Learners with low vision to be given verbal descriptions of the video.	
Core competencies to be developed: ● Communication and collaboration: The learner will develop teamwork as they Contribute to group decision making by recognising values of others ideas during discussions as they form wavy lines				
Values: ● Unity: The learner enriches cooperation as they work together in forming lines.				
Pertinent and Contemporary Issues (PCIs): ● Environmental education: The learner appreciates the gift of nature as they use available resources and spaces to form patterns.				
Link to other activity areas: ● Language activities: The learners acquire and use new vocabulary related to lines (straight, wavy and zig zag)				
Suggested learning Resources: books, charts, chalk boards, ropes, strings.				

THEME: OUR MARKET				
Strand	**Sub-Strand**	**Specific Learning Outcomes**	**Suggested Learning Experiences**	**Suggested Key Inquiry Question(s)**
4.0 GEOMETRY	**4.2 Shapes** 4 Lessons	By the end of the sub-strand, the learner should be able to: a. identify shapes on objects found in the market (rectangle, circle, triangle, oval, square), b. form shapes (rectangle, circle, triangle, oval, square) by arranging concrete objects one after the other, modelling, joining dots, c. colour drawn pictures of shapes (rectangle, circle, triangle, oval, square)within the boundaries,*{For learners with low vision.}* d. apply different textures on embossed shapes (rectangle, circle, triangle, oval, square) within the boundaries,{For learners with blindness}	• Learners with low vision are guided to observe models of objects in the market and talk about shapes in the objects while learners with blindness are guided to manipulate for familiarisation models of objects in the market and talk about shapes in the objects (fruits, utensils, chairs, tables). • Learners with low vision are guided to form shapes -rectangles, circles, triangles, squares and ovals by arranging objects like fruits one after the other on a surface. Learners with blindness are given one on one demonstration on arranging different objects to form rectangles, circles, triangles, squares and ovals. • Learners are guided to form shapes - rectangles, circles, triangles, squares and ovals by modelling using clay or plasticine or sticks or wires while observing safety. • Learners are guided to form shapes - rectangles, circles, triangles, squares and ovals by joining dots on well contrasting paper. • Learners with low vision are guided to colour and paint picture of shapes using	How do objects compare to other objects?

		e. appreciate shapes of objects found in the market.	appropriately contrasting colours. Leaners with blindness are guided to apply different textures within the outile of different shapes. • Learners to watch or listen to audio visual clips of different shapes using digital devices with assistive technology or use other resources.	
Core competencies to be developed: • Imagination and creativity:The learner develops connections between shapes as they form patterns.				
Values: Integrity: The learner enhances discipline as they carry out forming shapes activity and give honest feedback to peers. • Respect: The learner enhances patience as they apply textures in boundaries or colour within boundaries..				
Pertinent and Contemporary Issues (PCIs): ● Hygiene**:** The learners observe hygiene as they form different shapes using different materials.				
Link to other activity areas: • Creative Activities: The learner develops the ability to use shapes to form patterns.				
Suggested learning Resources : books, black board, roof, window frames/window panes, clock, pictures/models of objects found on the market				

Suggested Assessment Rubrics

LEVEL / INDICATOR	Exceeds Expectations	Meets Expectations	Approaches Expectations	Below Expectations
Ability to: a) identify lines (straight, wavy and zig zag) on concrete objects found in the market, b) form lines (straight, wavy and zig zag) by - arranging up to 20 concrete objects one after the other, modeling, joining dots, c) identify shapes on objects found in the market (rectangle, circle, triangle, oval, square), d) form shapes (rectangle, circle, triangle, oval, square) by arranging concrete objects one after the other, modelling, joining dots,	The learner demonstrates four skills.	The learner demonstrates three skills.	The learner demonstrates two skills.	The learner demonstrates one skill or none.