Curriculum Activities

Mathematics Grade Two

Strand	Sub-strand	Specific Learning Outcomes	Suggested Learning Experiences	Key Inquiry Question(s)
1.0Numbers	1.1 Number Concept (8 lessons)	By the end of the sub-strand, the learner should be able to: 1. Read numbers 1-100 in symbols, 2. Represent numbers 1-100 using concrete objects in the environment.	• Learners to read number names from 1-100. • Learners in groups of five to count their fingers and toes. • Learners in pairs/groups to play games of representing numbers 1-100 using safe concrete objects. • Learners to play digital games of representing groups with numbers.	**How can we find the number of objects in a group?**
Core Competences to be developed: communication and collaboration**,** imagination and creativity, digital literacy, critical thinking and problem solving.				
Link to PCI's: • **Life skills:** self-awareness and self-esteem -when using body parts. • **ESD: DRR;** safety- when collecting items in the environment.			**Link to Values:** • respect • responsibility	
Link to other learning areas: • Language activities • Hygiene and Nutrition activities			**Suggested Community Service Learning Activities**: learners to visit older citizens and listen to stories on how they used to count their animals and household items	
Suggested non- formal Activity to support learning: Learners to count number of different objects in the classroom.			**Suggested assessment:** oral questions, observation, and written exercise.	

Assessment Rubrics

Exceeds expectations	Meets expectations	Approaches expectations	Below expectations
Correctly: reads numbers more than100 in symbols, represents numbers more than 100 using concrete objects.	Correctly: reads numbers 1-100 in symbols, represents numbers 1-100 using concrete objects.	Inconsistently: reads numbers 1-100 in symbols, represents numbers 1-100 using concrete objects.	Major inaccuracies in: reading numbers 1-100 in symbols, representing numbers 1-100 using concrete objects.

Strand	Sub-strand	Specific Learning Outcomes	Suggested Learning Experiences	Key Inquiry Question(s)
1.0 Numbers	1.2 Whole Numbers (20 lessons)	By the end of the sub-strand, the learner should be able to: A. Count numbers forward and backward up to 100, B. Identify place value up to hundreds. C. Read numbers 1-100 in symbols, D. Read and write numbers 1-20 in words, E. Work out missing numbers in number patterns up to 100, F. Appreciate number patterns as they skip on the number line.	• Learners in pairs/groups to count in 2's and 5's forward and backward starting from any point. • Learners in pairs/groups to count their fingers and toes in 2's and 10's forward and backward starting at any point. • Learners in pairs / groups to discuss place value up to hundreds. • Learners in pairs to read numbers 1-100 in symbols. • Learners to read and write numbers 1-20 in words. • Learners to play digital games involving whole numbers. • Learners to work out missing numbers in	**How do we get the next number in a pattern**?

			• Learners in pairs/groups to make number patterns and share with other groups.	
Core Competences to be developed: communication and collaboration, critical thinking, problem solving, digital literacy.				
Link to PCI's: **Citizenship:** leadership- as learners work in groups.			**Link to Values:** • respect • responsibility	
Link to other learning areas : • Language activities • Environmental activities • Movement and creative activities			**Suggested Community Service Learning Activities:** Learners to assist in arranging chairs and tables in rows and columns during community functions.	
Suggested non- formal Activity to support learning: Learners to plant flowers in patterns in the school.			**Suggested assessment:** oral questions, written exercise, observation.	

Assessment Rubrics

Exceeds expectations	**Meets expectations**	**Approaches expectations**	**Below expectations**
Correctly: Counts to more than100, identifies place value up to more than hundreds, reads numbers more than100 in symbols, reads and writes numbers more than20 in words, works out missing numbers in patterns.	Correctly: Counts to more than100, identifies place value up to more than hundreds, reads numbers more than100 in symbols, reads and writes numbers more than20 in words, works out missing numbers in patterns.	Inconsistently: counts from 1-100, identifies place value up to hundreds, reads numbers 1-100 in symbols, reads and writes numbers 1-20 in words, works out missing numbers in patterns.	Major inaccuracies in: counting from 1-100, identifying place value up to hundreds, reading numbers 1-100 in symbols; reading and writing numbers 1-20 in words, working out missing numbers in patterns.

Strand	Sub-strand	Specific Learning Outcomes	Suggested Learning Experiences	Key Inquiry Question(s)
1.0 Numbers	1.3 Fractions (12 lessons)	By the end of the sub-strand, the learner should be able to: • Identify a 1/4 as part of a whole, • Identify a 1/2 as part of a whole.	• Learners in pairs to make circular paper cut- outs. • Learners in pairs to fold the circular paper cut – outs into two equal parts and identify one of the parts as a half of the whole written as 1/2. • Learners in pairs to make rectangular paper cut – outs and fold them into two equal parts to get a half of a whole written as 1/2. • Learners in pairs to fold circular paper cut – outs to get 4 equal parts and identify one of the parts as a 1/4 of a whole. • Learners to play digital games involving fractions. • Learners in pairs to practice making halves and	**What fraction do you get when you fold a circular paper cut- out into 4 equal parts?**
Core Competences to be developed: imagination and creativity, communication and collaboration, critical thinking and problem solving, digital literacy.				
Link to PCI's: **Life skills:** interpersonal relationship- making friends.			**Link to Values:** • unity • integrity • responsibility	
Link to other learning areas: • Language activities • Hygiene and Nutrition activities			learners to share whole edible items in ‿s aŶd ʻs duriŶg ĐoŵŵuŶity functions.	
Suggested non- formal Activity to support learning: Learners to share whole edible items in halves and quarters in school.			**Suggested assessment:** oral questions, written exercise, observation.	

Assessment Rubrics

Exceeds Expectations	Meets Expectations	Approaches Expectations	Below Expectations
Correctly identifies and and more fractions as part of a whole.	Correctly identifies and as part of a whole.	Inconsistently identifies and as part of a whole	Major inaccuracies in identifying 14 and as part of a whole.

Strand	Sub-strand	Specific Learning Outcomes	Suggested Learning Experiences	Key Inquiry Question(s)
1.0 Numbers	1.4 Addition (20 lessons)	By the end of the sub-strand, the learner should be able to: A. Add a 2- digit number to a 1- digit number without and with regrouping with sum not exceeding 100, B. Add 3-single digit numbers up to a sum of 20, C. Add a 2-digit number to a 2-digit number without and with regrouping, with sum not exceeding 100, D. Workout missing numbers in patterns involving addition of whole numbers up to 100.	• Learners in pairs to write addition sentences given in horizontal form vertically according to place value. • Learners to add a 2- digit number to a 1- digit number without and with regrouping. • Learners to practice addition by skipping on the number line. • Learners in pairs/groups to collect different safe objects and use them in addition of 3-single digit numbers. • Learners in pairs/groups to practice breaking numbers apart to make a 10. • Learners in pairs to come up with different ways of adding two 2-digit numbers without and with regrouping. • Learners to play digital games involving addition. • Learners in groups to make patterns using numbers up to 100.	• **How can we align a 2-digit number and a 1- digit number vertically in order to add?** • **When do we regroup?**

Core Competences to be developed: communication and collaboration, critical thinking and problem solving, digital literacy.	
Link to PCI's: • **ESD: DRR;** safety – as learners collect objects. • **Citizenship**: social cohesion - when working in groups.	**Link to Values:** • respect • responsibility • unity
Link to other learning areas : • Language activities • Hygiene and Nutrition activities	**Suggested Community Service Learning Activities:** learners to visit older citizen homes and assist them in getting the total number of different items in their homes.
Suggested non- formal Activity to support learning: Learners to plant flowers in patterns in school.	**Suggested assessment:** oral questions, written exercises, observation.

Assessment Rubrics

Exceeds Expectations	**Meets Expectations**	**Approaches Expectations**	**Below Expectations**
Correctly: adds more than two 2-digit numbers with sums not exceeding 100 using different strategies, works out missing numbers in patterns up to 100.	Correctly: adds up to two 2-digit numbers with sums not exceeding 100 using different strategies, works out missing numbers in patterns up to 100.	Inconsistently: adds up to two 2-digit numbers with sums not exceeding 100 using different strategies, works out missing numbers in patterns up to 100.	Major inaccuracies in: adding up to two 2-digit numbers with sums not exceeding 100 using different strategies, working out missing numbers in patterns up to 100.

Strand	Sub-Strand	Specific Learning Outcomes	Suggested Learning Experiences	Key Inquiry Question(s)
1.0 Numbers	1.5 Subtraction (20 lessons)	**By the end of the sub-strand, the learner should be able to:** 1. Subtract up to 2- digit numbers without regrouping, 2. Use the relationship between addition and subtraction in working out problems, 3. Work out missing numbers in subtraction of up to 2- digit numbers, 4. Work out missing numbers in patterns involving subtraction up to 100.	**Learners in pairs /groups to subtract single digit numbers by comparing groups of objects.** • Learners to subtract up to 2-digit numbers without regrouping in horizontal and vertical forms. • Learners to discuss the relationship between addition and subtraction using number families. • Learners to work out missing numbers in subtraction of up to 2- digit numbers. • Learners to play digital games involving subtraction. • Learners to work out missing numbers in patterns involving subtraction.	**How do you work out missing numbers in patterns involving subtraction**?

Core Competences to be developed: communication and collaboration, critical thinking and problem solving, self -efficacy, imagination and creativity, digital literacy.	
Link to PCI's: • **Life skills:** interpersonal relationship, effective communication, friendship formation - as learners work in groups. • **Citizenship**: social cohesion – as learners work in groups.	**Link to Values:** • respect • unity • responsibility
Link to PCI's: • **Life skills:** interpersonal relationship, effective communication, friendship formation - as learners work in groups.	**Link to Values:** • respect • unity • responsibility
Suggested non- formal Activity to support learning: Learners to collect litter during school cleaning activities.	**Suggested assessment:** oral questions, written exercise, observation.

Assessment Rubrics

Exceeds Expectations	Meets Expectations	Approaching Expectations	Below Expectations
Correctly: Subtracts up to more than 2- digit numbers without regrouping, works out missing numbers in number patterns up to 100.	Correctly: subtracts up to 2- digit numbers without regrouping, works out missing numbers in number patterns up to 100	Inconsistently: subtracts up to 2- digit numbers without regrouping, works out missing numbers in number patterns up to 100.	Major inaccuracies in: subtracting up to 2- digit numbers without regrouping, working out missing numbers in number patterns up to 100.

Strand	Sub-Strand	Specific Learning Outcomes	Suggested Learning Experiences	Key Inquiry Question(s)
1.0 Numbers	1.6 Multiplication (12 lessons)	By the end of the sub-strand, the learner should be able to: A. Represent multiplication as repeated addition using numbers 1, 2, 3, 4 and 5 up to five times, B. Write repeated addition sentences as multiplication, using '×' sign, C. Multiply single digit numbers by 1, 2, 3, 4, 5 and 10.	• Learners in pairs/groups to use counters to represent multiplication as repeated addition. • Learners in pairs/groups to use number lines to represent multiplication as repeated addition. • Learners to use '×' sign in writing repeated addition sentences as multiplication. • Learners to multiply single digit numbers by 1, 2, 3, 4, 5 and 10. • Learners to play digital games involving multiplication. • Learners could visit the local market to see how fruits are arranged in groups of 3's, 4's	How do you represent multiplication as repeated addition?

Core Competences to be developed: communication and collaboration, critical thinking and problem solving, digital literacy	
Link to PCI's: • **Life skills:** self- awareness- when learners use their fingers. • **ESD**:DRR; environmental awareness - re- use of materials collected	**Link to Values:** • respect • unity • responsibility
Link to other learning areas: • Language activities • Environmental activities	**Suggested Community Service Learning Activities:** learners to visit older citizens and assist them in arranging items in groups of equal numbers
Suggested non- formal Activity to support learning: learner to work out total number of desks in their classroom through repeated addition	**Suggested assessment:** oral questions, written exercises, observation.

Assessment Rubrics

Exceeds Expectations	**Meets Expectations**	**Approaches Expectations**	**Below Expectations**
Correctly: represents multiplication as repeated addition, uses multiplication sign, multiplies single digit numbers by 1, 2, 3, 4, 5, and 10 and goes beyond.	Correctly: represents multiplication as repeated addition, uses multiplication sign, and multiplies single digit numbers by 1, 2, 3, 4, 5 and 10.	Inconsistently: represents multiplication as repeated addition, uses multiplication sign, and multiplies single digit numbers by 1, 2, 3, 4, 5 and 10.	Major inaccuracies in: representing multiplication as repeated addition, using multiplication sign, multiplying single digit numbers by 1, 2, 3, 4, 5 and 10.

Strand	Sub-Strand	Specific Learning Outcomes	Suggested Learning Experiences	Key Inquiry Question(s)
1.0 Numbers	1.7 Division (8 lessons)	By the end of the sub-strand, the learner should be able to: A. Represent division as equal sharing, B. Represent division as equal grouping, C. Use ' ÷ 'sign in writing division sentences, D. Divide numbers up to 25 by 2, 3, 4 and 5 without a remainder in real life situations.	• Learners in pairs/groups to share a given number of objects equally by each picking one object at a time until all are finished and then count how many each got. • Learners in pairs/groups to pick an equal number of objects at a time from the main group and count the number of small equal groups formed. • Learners to use ‘,’sign in writing division sentences. • Learners to play digital games involving division. • Learners to divide numbers up to 25 by 2, 3, 4 and 5 without a remainder.	**How can you share a given number of objects equally?**
Core Competences to be developed: communication and collaboration, critical thinking and problem solving, digital literacy.				
Link to PCI’s: • **Citizenship:** social cohesion- as learners work in groups. • **ESD: DRR;** safety - of materials that learners use.			**Link to Values:** • respect • responsibility • love • integrity • social justice	
Link to other learning areas: • Languages activities • Environmental activities			**Suggested Community Service Learning Activities:** learŶers to |isit ĐhildreŶs hoŵes aŶd share fruits as a ‖ay of gi|iŶg ďaĐk to the community	
Suggested non- formal activity to support learning: Learners to plant seedlings in rows in school.			**Suggested assessment:** oral questions, written exercises, observation.	

Assessment Rubrics

Exceeds Expectations	Meets Expectations	Approaches Expectations	Below Expectations
Correctly: represents division as equal sharing and equal grouping, uses division sign, divides numbers up to 25 by 2, 3, 4, and 5 without a remainder and goes beyond.	Correctly: represents division as equal sharing and equal grouping, uses division sign, divides numbers up to 25 by 2, 3, 4 and 5 without a remainder.	Inconsistently: represents division as equal sharing and equal grouping, uses division sign, divides numbers up to 25 by 2, 3, 4 and 5 without a remainder.	Major inaccuracies in: representing division as equal sharing and equal grouping, using division sign, dividing numbers up to 25 by 2, 3, 4, and 5 without a remainder.

Strand	Sub-Strand	Specific Learning Outcomes	Suggested Learning Experiences	Key Inquiry Question(s)
2.0 Measurement	2.1 Length (6 lessons)	**By the end of the sub-strand, the learner should be able to:** A. Measure length using fixed units, B. Identify the metre as a unit of measuring length, C. Measure length in metres.	• Learners in pairs/groups to use sticks of equal length to measure different lengths, record and discuss the results. • Learners in pairs/groups to measure length using sticks of different lengths, including 1- metre sticks and identify the 1- metre sticks. • Learners to make 1-metre sticks and use them in measuring various lengths within the classroom , record and discuss the results. • Learners to play digital games involving length in metres.	**What can you use to measure different lengths?**
Core Competences to be developed: communication and collaboration, critical thinking and problem solving, imagination and creativity, digital literacy, learning to learn.				

Link to PCI's: • **Citizenship:** social cohesion- as workers work in groups. • **ESD:DRR;** safety- of materials learners use .	**Link to Values:** • respect • responsibility
Link to other learning areas : • Languages activities • Environmental activities	**Suggested Community Service Learning Activities:** Learners to assist their neighbours to measure length during building of chicken /rabbit cages among others.
Suggested non- formal activity to support learning: Learners to measure length of their school fields in metres during games.	**Suggested assessment:** oral questions, written exercises, observation.

Assessment Rubrics

Exceeds Expectations	**Meets Expectations**	**Approaches Expectations**	**Below Expectations**
Correctly: measures length using fixed units, identifies the metre as a unit of measuring length and measures length in metres with ease.	Correctly: measures length using fixed units, identifies the metre as a unit of measuring length and measures length in metres.	Inconsistently: measures length using fixed units, identifies the metre as a unit of measuring length and measures length in metres.	Major inaccuracies in: measuring length using fixed units, identifying the metre as a unit of measuring length and measuring length in metres

Strand	Sub-Strand	Specific Learning Outcomes	Suggested Learning Experiences	Key Inquiry Question(s)
2.0 Measurement	2.2 Mass (6 lessons)	**By the end of the sub-strand, the learner should be able to:** A. Measure mass using fixed units, B. Identify the kilogram as a unit of measuring mass, C. Measure mass in kilograms	• Learners in pairs/groups to use items of same mass and a beam balance to measure different masses record and discuss the results. • Learners in pairs/groups to use an item equivalent to a 1-kilogram mass and a beam balance to make other 1-kilogram masses and use them to compare other masses. • Learner to practice measuring mass in kilograms using a 1- kilogram mass. • Learners to play digital games involving mass in kilograms.	**What can we use to measure mass?**
Core Competences to be developed: communication and collaboration, critical thinking and problem solving, imagination and creativity, digital literacy.				
Link to PCI's: • **Citizenship:** social cohesion- as learners work in groups. • **ESD:DRR;** safety -of materials learners use.			**Link to Values:** • respect • integrity • responsibility	
Link to other learning areas : • Language activities • Environmental activities			**Suggested Community Service Learning Activities:** Learners to assist their neighbours to measure mass of items in their homes in kilograms.	
Suggested non- formal activity to support learning: Learners to measure mass of items in their classroom in kilograms during their free time.			**Suggested assessment:** oral questions, written exercise, observation.	

Assessment Rubrics

Exceeds Expectations	Meets Expectations	Approaches Expectations	Below Expectations
Correctly: measures mass using fixed units, identifies and uses the kilogram as a unit measuring mass with ease.	Correctly: measures mass using fixed units, identifies and uses the kilogram as a unit of measuring mass.	Inconsistently: measures mass using fixed units, identifies and uses the kilogram as a unit of measuring mass	Major inaccuracies in: measuring mass using fixed units, identifying and using the kilogram as a unit measuring mass.

Strand	Sub-Strand	Specific Learning Outcomes	Suggested Learning Experiences	Key Inquiry Question(s)
2.0 Measurement	2.3 Capacity (8 lessons)	**By the end of the sub-strand, the learner should be able to:** A. Measure capacity using fixed units, B. Identify the litre as a unit of measuring capacity, C. Measure capacity in litres.	• Learners in pairs /groups to use small containers of equal capacity to fill bigger containers of same capacity but different shapes with water and count the number of small containers used to fill them. • Learners in pairs/groups to use 1 litre containers to fill big containers with water and count the number of litres used to fill the big containers. • Learners in groups to measure the capacity of different containers in litres. • Learners to play digital games involving capacity.	**What can you use to measure capacity of different containers?**
Core Competences to be developed: communication and collaboration, critical thinking and problem solving, imagination and creativity, citizenship, digital literacy.				
Link to PCI's: • **Health Education**: personal hygiene - brushing teeth, washing		**Link to Values:** • respect		

face. • **Citizenship:** social cohesion- as learners work in groups. • **ESD: DRR;** safety- of materials learners use.	• responsibility
Link to other learning areas: • Language activities • Religious activities	**Suggested Community Service Learning Activities:** Learners to assist their neighbours in keeping their compounds clean during school holidays.
Suggested non-formal activity to support learning: Learners to clean their classroom during free time.	**Suggested assessment:** oral questions, written exercise, observation.

Assessment Rubrics

Exceeds Expectations	**Meets Expectations**	**Approaching Expectations**	**Below Expectations**
Correctly: relates months of the year to various activities, identifies number of days in each month, measures time using arbitrary and fixed units, identifies the minute and the hour hand in a clock face and reads, tells and writes time by the hour with ease.	Correctly: relates months of the year to various activities, identifies number of days in each month, measures time using arbitrary and fixed units, identifies the minute and the hour hand in a clock face and reads, tells and writes time by the hour.	Inconsistently: relates months of the year to various activities, identifies number of days in each month, measures time using arbitrary and fixed units, identifies the minute and the hour hand in a clock face and reads, tells and writes time by the hour.	Major inaccuracies in: relating months of the year to various activities, identifying number of days in each month, measuring time using arbitrary and fixed units, identifying the minute and the hour hand in a clock face and reading, telling and writing time by the hour.

Strand	Sub-Strand	Specific Learning Outcomes	Suggested learning experiences	Key Inquiry Question(s)
2.0 Measurement	2.5Money (10 lessons)	**By the end of the sub-strand, the learner should be able to:** A. Identify Kenyan currency coins and notes up to sh.100, B. Count money in sh.1, sh.5, sh.10, sh.20, sh.40, sh.50 up to sh.100, C. Represent same amount of money in different denominations, D. Relate money to goods and services up to sh.100, E. Differentiate between needs and wants in real life context, F. Appreciate spending and saving of money in real life situations.	• Learners in pairs/groups to sort out Kenyan currency coins and notes according to their features up to sh.100. • Learners in groups to put different coins and notes together and separate them according to their values and features. • Learners in pairs/groups to count money in sh.1, sh.5, sh.10, sh.20, sh.40, sh.50 up to sh.100. • Learners in pairs/groups to make same amount of money using different denominations. • Learners in pairs/groups to discuss items they cannot do without and those that are necessary but they can do without up to a value of sh.100. • Learners in pairs/groups to classify needs and wants. • Learners to discuss the importance of saving. • Learners to play digital games involving money. • Learners could record a video during a role play of classroom shopping activities for replay and discussion later.	**How can you identify different Kenyan currencies?**
Core Competences to be developed: communication and collaboration, critical thinking and problem solving, imagination and creativity, citizenship, digital literacy.				
Link to PCI's: • **Life Skills**: interpersonal relationship, effective communication – during shopping activities. • **Citizenship:** patriotism–money is a symbol of national unity. • **ESD:DRR;** safety of materials in classroom shop, financial literacy.			**Link to Values:** • respect • responsibility • integrity • patriotism	

Link to other learning areas : • Language activities • Environmental activities • Religious activities	**Suggested Community Service Learning Activities:** • Learners to assist in counting money offered in religious and non-religious functions.
Suggested non- formal activity to support learning: • Learners to assist the school clerk in sorting coins and notes according to their value.	**Suggested assessment:** oral questions, written exercise, observation

Assessment Rubrics

Exceeds Expectations	**Meets Expectations**	**Approaches Expectations**	**Below Expectations**
Correctly: identifies Kenyan currency notes and coins beyond sh.100, counts money in different denominations, works out equivalence of different denominations, relates money to goods and services and differentiates needs and wants.	Correctly: identifies Kenyan currency notes and coins up to sh.100, counts money in different denominations, works out equivalence of different denominations and relates money to goods and services, and differentiates needs and wants.	Inconsistently: identifies Kenyan currency notes and coins up to sh.100, counts money in different denominations, works out equivalence of different denominations, relates money to goods and services and differentiates needs and wants.	Major inaccuracies in: identifying Kenyan currency notes and coins up to sh.100, counting money in different denominations, working out equivalence of different denominations, relating money to goods and services and differentiating needs and wants.

Strand	Sub-strand	Specific Learning Outcomes	Suggested Learning Experiences	Key Inquiry Question(s)
3.0Geometry	3.1 Lines (5 lessons)	**By the end of the sub-strand, the learner should be able to:** A. Draw and model straight lines, B. Draw and model curved lines.	• Learners in pairs /groups to model straight and curved lines using sticks plasticine /clay/ papiermache. • Learners in groups to model straight and curved lines using strings. • Learners in groups to model straight and curved lines by holding their hands. • Learners to draw straight and curved lines. • Learners to model straight and curved lines using learner digital devices.	**What types of lines do you know?**
Core Competences to be developed: communication and collaboration, imagination and creativity, self- efficacy, digital literacy.				
Link to PCI's: • **Life Skills**: self- awareness - as learners use their body parts. • **ESD:DRR;** safety- of materials in modeling lines.			**Link to Values:** • respect • responsibility	
Links to other learning areas: • Movement and creative activities • Environmental activities			**Suggested Community Service Learning Activities:** • Learners to assist in arranging seats in straight lines in community functions.	
Suggested non- formal activity to support learning: • Learners to arrange seats in straight lines in the classroom.			**Suggested assessment:** • Oral questions, written exercise, observation.	

ASSESSMENT RUBRICS

Exceeds Expectations	Meets Expectations	Approaches Expectations	Below Expectations
• Correctly draws and models straight and curved lines with ease.	• Correctly draws and models straight and curved lines.	• Inconsistently draws and models straight and curved lines.	• Major inaccuracies in drawing and modelling straight and curved lines

Strand	Sub-strand	Specific Learning Outcomes	Suggested Learning Experiences	Key Inquiry Question(s)
3.0 Geometry	3.2 Shapes (5 lessons)	By the end of the sub-strand, the learner should be able to: A. Identify rectangles, circles, triangles, ovals and squares, B. Appreciate making patterns involving rectangles, circles, triangles, ovals and squares.	• Learners in pairs/groups to sort and group items of different shapes. • Learners in pairs/groups to discuss types of lines making different shapes. • Learners to identify and name the different shapes found in their classroom. • Learners to make patterns of their choice using the five shapes. • Learners in groups to make patterns, colour them and share with other groups. • Learners to make patterns using digital devices.	• **What shapes can you identify in your environment?** • **What shapes are made by straight lines?** • **What shapes are made by curved lines?**
Core Competences to be developed: communication and collaboration, imagination and creativity, self- efficacy, digital literacy				
Link to PCI's: • **Life Skills**: self- awareness - use of their hands in making patterns.			**Link to Values:** • respect	

• **ESD: DRR;** safety- of materials in making patterns.	• unity • responsibility
Link to other learning areas: • Movement and creative activities • Environmental activities	**Suggested Community Service Learning Activities:** • Learners to visit the children homes and beautify their walls with patterns drawn on paper.
Suggested non- formal activity to support learning: • Learners to make patterns and stick them on classroom walls for beauty.	**Suggested assessment:** • Oral questions, written exercise, observation.

Assessment Rubrics

Exceeds Expectations	Meets Expectations	Approaches Expectations	Below Expectations
Correctly identifies shapes and makes patterns involving rectangles, circles, triangles, ovals and squares with ease.	Correctly identifies shapes and makes patterns involving rectangles, circles, triangles, ovals and squares	Inaccurately identifies shapes and makes patterns involving rectangles, circles, triangles, ovals and squares.	Major inaccuracies in identifying shapes and making patterns involving rectangles, triangles, circles, ovals and squares.

SUGGESTED RESOURCES

SUB -STRANDS	RESOURCES
NUMBER CONCEPT	Bottle tops , marbles ,sticks, stones, grains
WHOLE NUMBERS	Bottle tops, marbles , sticks, stones, grains, a number line drawn on the ground/floor
FRACTIONS	Circular and rectangular cut outs
ADDITION	Bottle tops, marbles, stones, sticks, grains, place value chart, abacus, basic addition facts table, a number line drawn on the ground/floor
SUBTRACTION	Bottle tops, marbles, sticks, stones, grains, basic addition facts table, a number line drawn on the ground/floor
MULTIPLICATION	Bottle tops, marbles, stones, grains, number line drawn on the ground/floor, multiplication table
DIVISION	Bottle tops, marbles, sticks, stones, grains, multiplication tables
LENGTH	Pencils, sticks, rulers, strings, ropes
MASS	Items of different masses such as books ,stones, pieces of wood, items of same mass, beam balance
CAPACITY	Containers of different sizes, 1-litre containers, water, soil, sand
TIME	Charts with number of days in each month and months of the year in order, clock face both analogue and digital
MONEY	Money in coins and notes sh.1, sh.5, sh.10, sh.20, sh.40, sh.50, sh.100, classroom shop
LINES	Sticks, clay, plasticine, strings, ropes
SHAPES	Cut- outs of rectangles, circles, triangles , ovals and squares of different sizes

NOTE

The following **ICT** devices may be used in the teaching/learning of Mathematics at this level:

Learner digital devices (LDD),Teacher digital devices(TDD),Mobile phones, Digital clocks, Television sets, Videos, Cameras, Projectors, Radios, DVD players, CD̊s, SĐaŶŶers, IŶterŶet among others