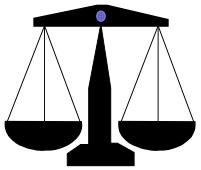
MINISTRY OF EDUCATION

REVISED CURRICULUM GUIDE

MATHEMATICS

GRADE 5



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CURRICULUM GUIDE
MATHEMATICS: GRADE 5

CONTENTS

MATHEMATICS CURRICULUM GUIDE
LEVEL 5
SETS

TOPIC	OBJECTIVE					EVALUATION	AREAS OF INTEGRATION
	SKILLS	KNOWLEDGE	ATTITUDE	CONTENT	METHODS/ STRATEGIES-		
Sets: Making sets and listing members.	Sorting mixed collection of objects to make sets Describing sets Naming sets Drawing Listing members of sets	Describe a set and list members of sets using braces.	Share objects and work in small groups.	Describe a set and list members of sets using braces.	- Sort a mixed collection of objects to make sets. - Describe and name the sets formed. - Drawing diagrams to represents the sets made. - List all the members of a set. - State which members belong and which do not belong to a particular set.	Describe sets. Name sets. List members of given sets using braces e.g. The set of vowels (V): V = {a, e, i, o, u}.	Art Draw sets of objects from the environment.
Distinguishing between equal and equivalent sets.	Differentiating Making sets	Recognise equal sets as referring to a set with many names Recognise	Share objects and work co-operatively.	Equal and Equivalent sets.	Make equal sets Explain the concept of equal sets. Make equivalent	Identify equal and equivalent sets from given sets	Language Skills Use language of mathematics in

TOPIC	OBJECTIVE					EVALUATION	AREAS OF INTEGRATION
	SKILLS	KNOWLEDGE	ATTITUDE	CONTENT	METHODS/ STRATEGIES-		
		equivalent sets as having the same number of members.			sets Explain the concept of equivalent sets Compare equal sets with equivalent sets		communicating.
Subsets	Identifying and using the symbol for " is a subset of ".	Describing sets Identifying and listing subsets of the given set. Using the symbol $\subset$ - is a subset of	Find out mathematical facts for oneself	Subsets. The symbol for " is a sub set of " i.e. $\subset$	Describe and name given sets. Identify and write sets using braces. Make smaller sets from given sets and name these "subsets." of the given sets e.g (a) { i, o, a } is a subset of { a, e, i, o, u } (b) {1,2,3 } is a subset of {1,2,3,4,5} Use the symbol $\subset$ for " is a subset of.". e.g. {1,2}$\subset$. {1,2,3,4,5,6}	List the members of subsets of given sets using braces and the symbol $\subset$ - is a subset of .	Social Studies Identify major groupings of countries in the Caribbean e.g. Greater Antilles, Bahamas etc. Science From a set of pictures of animals select pictures of animals and place them in the correct vertebrate groups.

NUMBER CONCEPTS

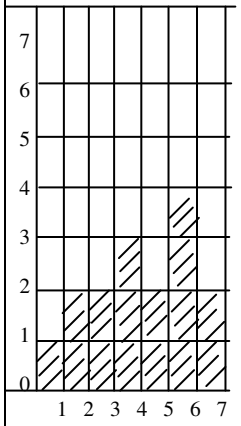
TOPIC	OBJECTIVE			CONTENT	METHODS/ STRATEGIES-	EVALUATION	AREAS OF INTEGRATION
	SKILLS	KNOWLEDGE	ATTITUDE				
LEVEL 5 NUMBER	Reading Numerals	Read and write numerals up to	Develop critical thinking	Numerals up to hundreds of	Read various 4- and 5-digit numerals	Rearrange digits to make new 6	

TOPIC	OBJECTIVE			CONTENT	METHODS/ STRATEGIES-	EVALUATION	AREAS OF INTEGRATION
	SKILLS	KNOWLEDGE	ATTITUDE				
CONCEPTS. Reading and writing numerals up to hundreds of thousands	Recognising patterns Using patterns to develop mathematical concepts	hundreds of thousands (both numerically and in words) and state the values of each digits in numerals up to thousands		thousands Place value of each digit in numerals up to hundreds of thousands.	shown on abacuses/place value charts/coloured number strips/notation cards. Use abacuses/place value charts/coloured number strips/notation cards to show numerals up to 5 digits and then to 6 digits Use the place value chart and abacus to read and write numerals up to hundreds of thousands.	digit numerals. Read 6- digit numerals	
	Investigating	- Skip counting in 2's, 3's, 5's, 10's, 25's, 50's, 100's, 1000's, recognising and insert missing terms in sequence	Observing	Count in 2's, 3's, 5's, 10's, 100's, 1000's, 	- Count in sequence from one. - Count on, from a given number to another given number (forward and backward) - Skip count in 2's, 3's, 5's, 10's, 25's, 50's on a hundred grid. - (both forward and backward)	Complete sequence involving skip counting in 2's, 3's, etc in acending. 160, 165, __, __, 180 and decending 1350, 1250, __, __.	
					- e.g. 125, 150, __, __, __, 105,	- Increase or decrease	

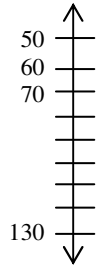
TOPIC	OBJECTIVE			CONTENT	METHODS/ STRATEGIES-	EVALUATION	AREAS OF INTEGRATION
	SKILLS	KNOWLEDGE	ATTITUDE				
					__, 115, 120, __, __, 260, 250, __, __, 220. - Skip counting in hundreds, thousands, thousands from a given number to another given number (with and without the use of a number line) - Increasing or decreasing a given number by thousands/hundreds/fifties/twenty-five/tens/fives/threes/twos, writing and reading the numerals formed by the increase or decrease. - Recognising patterns in skip counting. - Completing sequences involving skip counting - Completing dot	given numbers by thousands, hundreds etc. - E.g. Increase 360 by 5 = __ decreases 1764 by 100 = ____. - Complete series in skip counting - Complete dot to sot puzzles. - E.g. - 65, 85, ...

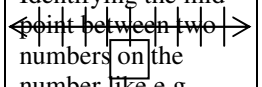
TOPIC	OBJECTIVE			CONTENT	METHODS/ STRATEGIES-	EVALUATION	AREAS OF INTEGRATION
	SKILLS	KNOWLEDGE	ATTITUDE				
					to dot puzzles.		
	Ordering	Comparing and ordering numbers up to hundreds of thousands.		Compare numbers up to hundreds of thousands. Using >, < or = signs. e.g. 10 634 < 12 361 Order numbers from smallest to largest and vice-versa. E.g. 29 364 87521 9864 from smallest 9 864 29 364 87 521 from largest. 87 521 29 364 9 864	- Arranging given numerals (up to hundreds of thousands) in order from largest to smallest and vice-versa - Comparing numerals up to hundreds of thousands. - Writing number sentences using symbols =, >, < to show that one number is equal to, greater than or less than another.	- Use the symbols =, >, < to compare numbers up to hundreds of thousands of …busands. E.g. 162 361 10 364 - Order given numerals from largest to smallest and vice-versa.	
	Computation.	Identify and write factors of 1 and 2 digit numbers and write the product of repeated factors as <u>the power of the factor</u>		Factors of 1 and 2 digit numbers.	- Identify and write factors of given number (up to 2 digit). - Identify the factor in a given number sentence and state the number of times the factor in repeated e.g. 2	- Writing the factors of given 1 and 2 digit numerals - Writing repeated factors using power. E.g. 7 x 7 x 7 x 7 x 7 = 7 - Writing	

TOPIC	OBJECTIVE			CONTENT	METHODS/ STRATEGIES-	EVALUATION	AREAS OF INTEGRATION
	SKILLS	KNOWLEDGE	ATTITUDE				
					x 2 x 2 = 8 the factor 2 is repeated 3 times. - Write and read the product of repeated factors as the power of the factor and vice-versa. E.g. 2 x 2 x 2 = 8 = 2 and 2 x 2 x 2 = 2 = 8 - Identify the factor and the power (exponent) of the factor e.g. in 2 2 is the factor and 3 is the power or exponent.	given powers of factors as repeated factors e.g. - 7 = 7 x 7 x 7 x 7 - Identifying factors and power (exponents).	
	Counting Identifying.3	Identify prime and composite numbers between 0 and 100. Identifying and writing multiples of 1 and 2 digit numbers. (10, 11, 12)	Recognising.	Prime and composite numbers between 0 and 100.	- Listing all factors of given numbers between 0 and 100 - Counting the number of factors for each number and recording them on a table or graph. Number 1 2 3 4 5 6 7 Factors 1 1 2 1 3 1 2 1 5 1 2 3 1 7 4 6	- Identify prime numbers from given sets of numbers.	Physical Education.

TOPIC	OBJECTIVE			CONTENT	METHODS/ STRATEGIES-	EVALUATION	AREAS OF INTEGRATION
	SKILLS	KNOWLEDGE	ATTITUDE				
					Number of different factors		
					Number of different fac-  Using the table/graph to name the numbers that have two and only two different factors and naming such number – prime numbers composite numbers. Shading prime/composite numbers on a	- Identify composite numbers from a given set of numbers.	

TOPIC	OBJECTIVE			CONTENT	METHODS/ STRATEGIES-	EVALUATION	AREAS OF INTEGRATION
	SKILLS	KNOWLEDGE	ATTITUDE				
					hundred square grid.		
	Organising Classifying.	Identify and write multiples of 1 and 2 digit number (10,11,12).	Develop self-reliance.	Multiples of 1 and 2 digit numbers.	Manipulating small objects to identify number that can be put into equal rows of 2, 3, 4, 5 etc. up to 12. Identifying the numbers that can be put into equal rows of 2 as multiples of 2; numbers that can be put into equal rows of 3, 4, 5 etc. to 12 as multiples of 3, 4, 5 etc. to 12. Identifying multiples of one and tens object numbers up to 12 on a hundred square grid.	- Write the multiple of given one and two digit numbers up to 12. - Complete sequences for multiples.	Crossword Puzzle.
	Investigating Calculating.	Find the L.C.M. of given number using sets of multiples.	Observing.	L.C.M. of not more than three number at a time.	Listing multiples of given numbers (not more than 3 numbers at a time). Stating which multiples are multiples of all the numbers given and describing these multiples as Common Multiples. Identify the Lowest of the Common Multiples and describing it as	Complete table for L.C.M. of given numbers.	Science. Tech/Voc Subject.

TOPIC	OBJECTIVE			CONTENT	METHODS/ STRATEGIES-	EVALUATION	AREAS OF INTEGRATION
	SKILLS	KNOWLEDGE	ATTITUDE				
					Lowest Common Multiples (L.C.M).		
	Computation Identifying Differentiating Comparing.	Rounding whole numbers to the nearest ten, hundred and thousand.	Recognising. Appreciating.	Round whole numbers up to thousand.	Counting in tens from a given number to another given number on a number line e.g.  Identifying given number on the number line and stating their position in relation to the tens on both sides of the number e.g. 50 51 50 51 52 53 54	Round given number to the nearest ten, hundred and thousand.	

TOPIC	OBJECTIVE			CONTENT	METHODS/ STRATEGIES-	EVALUATION	AREAS OF INTEGRATION
	SKILLS	KNOWLEDGE	ATTITUDE				
							
					52 is nearer to 50 than to 60 56 is nearer to 60 than to 50. Identifying the mid-point between two numbers on the number like e.g.  10 20 30 90 Rounding given numbers to the nearest ten and stating a rule for rounding numbers e.g. numbers form the mid-point and higher than the mid-point are rounded up; numbers below the mid-point are rounded down e.g. 84 rounded to the nearest ten is 80. 38		

TOPIC	OBJECTIVE			CONTENT	METHODS/ STRATEGIES-	EVALUATION	AREAS OF INTEGRATION
	SKILLS	KNOWLEDGE	ATTITUDE				
					to the nearest ten is 40. Using similar activities as the above for rounding numbers to the nearest hundred and to the nearest thousand.		
.	Calculating Investigating.	Test for divisibility by 2, 3, 5, 9 and 12.	Observing. Appreciate	Numbers that are divisible by 2, 3, 5, 9, and 12.	Grouping quantities of stoppers into parcels of 2, 3, 5, 9, 10. Dividing given numbers by 2, 3, 5, 9,10. Examining the ending of numbers that are exactly divisible by 2, 3, 5,9, by 10 and stating the rule for each. Examining the sums of the digits of numbers exactly divisible by 3 and by 9 and stating the rule for each. Using these rules to find numbers that are divisible by 2, 3, 5, 9 and by 10 on the 100 square grid.	State the rule for divisibility by 2, 3, 5, 9 and by 10. Identify numbers that are divisible by 2, 3, 5, 9 and by 10.	

TOPIC	OBJECTIVE			CONTENT	METHODS/ STRATEGIES-	EVALUATION	AREAS OF INTEGRATION
	SKILLS	KNOWLEDGE	ATTITUDE				
	Identifying and listing.	Identify odd and even numbers.	Inquiring.	Odd and even numbers.	Arranging given sets of objects into two equal rows. Describing odd and even numbers. Identifying odd and even numbers on the hundred square grid. Recognising odd and even numbers by excaming the last digit in the numeral. Completing sequence involving odd and even numbers.	Identify odd and even numbers on a hundred square grid.	Physical Educational – game.
	Ordering Identifying.	Use ordinals as applied to dates anniversaries etc.	Comparing and appreciating.	Ordinals as applied to dates.	Reading the date from the calendar, using ordinals. Using ordinals to record the date of each day; to name the order of the days of the week, weeks in the month, month in the year and the dry and month of important events such as birthdays, anniversaries, National Events etc.	Using ordinals to tell and write dates as a daily exercise.	Art.
	Comparing	Read and write Roman Numerals.	Differentiating Accepting.	Roman Numerals up to c (100).	- **Substituting Roman Numerals for given Arabic Numerals to L**	Write Roman Numerals for Arabic/Hindu Numerals to 100 and vice-versa.	Social Studies.

TOPIC	OBJECTIVE			CONTENT	METHODS/ STRATEGIES-	EVALUATION	AREAS OF INTEGRATION
	SKILLS	KNOWLEDGE	ATTITUDE				
					(50). - Discussing the basic symbols to L. - Discussing how the basic symbols affect the meaning of the numerals i.e. - If a numeral is written to the right of one with greater value the two must be added together e.g. LX is 50 to 10 = 60. - If the numeral is written to the left of one of greater value, it must be subtracted e.g. 1X is 10 – 1 = 9. XL is 50 – 10 = 40 - Recognising C as the Roman Numeral for 100. - Writing the Roman Numeral for 90 – XC and		

TOPIC	OBJECTIVE			CONTENT	METHODS/ STRATEGIES-	EVALUATION	AREAS OF INTEGRATION
	SKILLS	KNOWLEDGE	ATTITUDE				
					other numerals from 1 to 50, 60 to 100. - **Writing Roman Numerals for given numbers up to 100 and vice versa.STOP**		

OPERATIONS, RELATIONS AND PROPERTIES

TOPIC	OBJECTIVE			CONTENT	METHODS/ STRATEGIES-	EVALUATION	AREAS OF INTEGRATION
	SKILLS	KNOWLEDGE	ATTITUDE				
Basic number facts for addition and subtraction	Recognising patterns Problem solving Computing	Recall with speed and accuracy all basic number facts for addition and subtraction Recognise basic number facts for addition and subtraction as number combinations in addition and subtraction with 1-digit addends e.g. 3 + 8 = 11 11 - 3 = 8	Memorise important results and value these as useful	Basic number facts for addition and subtraction.	Use the addition and subtraction tables to recall addition and subtraction facts Examine addition and subtraction tables and find patterns. Discuss these patterns and make generalisation for -adding zero to a number -taking zero from a number -adding two numbers in any order Solve simple addition and subtraction problems based on addition and subtraction facts	Complete addition and subtraction tables. Use concrete materials to solve addition and subtraction problems Solve problems with brackets Complete addition and subtraction tables involving odd and even numbers Complete	<u>Science</u> Investigating and drawing conclusions.

TOPIC	OBJECTIVE			CONTENT	METHODS/ STRATEGIES-	EVALUATION	AREAS OF INTEGRATION
	SKILLS	KNOWLEDGE	ATTITUDE				
					Use odd and even numbers to reinforce addition and subtraction facts by finding out if the result of the addition or subtraction operation is odd or even Use brackets to write sentences to show which part of a problem must be worked first then Use flash cards with incomplete addition and subtraction facts and have pupils complete them	number sentences with basic addition and subtraction facts e.g. 9 + ! = 12 ! + 8 = 14 5 + 6 = ! + 5	
Multiplication Tables up to 12 tens	Building up multiplication tables Using multiplication tables.	Build up and use multiplication tables up to 12 times	Show interest in learning basic multiplication facts Value the use of multiplication tables in solving problems	Multiplication tables up to 12 times	Identify patterns and relationships in multiplication table (grid) for up to 9 times tables and making generalisation. e.g. -any number multiplied by zero is zero. -any number multiplied by 1 is the number itself -the order in which a number is multiplied does not alter the answer. -multiplication and division are inverse operations e.g. 2 x 6 = 12 so 12 ÷ 2 = 6 and 12 ÷ 6 = 2	Complete multiplication table on grid for up to 12 times. Write repeated addition sentences as multiplication facts and vice versa e.g. 3 +3 +3 +3 = 4 x 3 or 3 x 4 Complete number sentences with basic multiplication and division facts for up to 12 times tables.	

TOPIC	OBJECTIVE			CONTENT	METHODS/ STRATEGIES-	EVALUATION	AREAS OF INTEGRATION
	SKILLS	KNOWLEDGE	ATTITUDE				
					Count in sets of 11, 12 on a number line to build up multiplication tables for 11 and 12 and record these counts using repeated addition sentences and multiplication sentences e.g. 11 + 11 = 22 11 x 2 = 22 Use flash cards to do drills in multiplication and division facts for up to 12 times tables. Solve simple problems involving basic number facts for multiplication and division Use calculators to verify results.	Solve simple multiplication and division problems.	
Number sequences	Recognising number patterns Completing number sequences	Build number sequences	Be aware of growth patterns	Building number sequence (not more than 10 numbers in a sequence) so that the difference between consecutive terms is a 1 digit; number, 10, multiple of 10 up to 100 and other 2 digit numbers.	Count in twos, threes, fours, fives, tens, and multiples of 10 up to hundreds, beginning at any number. Recognise the number pattern in sequences and find the principle governing a particular pattern. Read numbers in number sequences on a number line and state the difference between consecutive terms Complete number sequence on a number	Complete number sequences starting at any point. e.g. (i) 10, 20, 30, (ii) 5, 70, 75 ----- (iii) 4, 8, 12 ------ (iv)191, 291, 391, -----	Art and Craft Use objects, e.g. matchsticks, to create growth patterns.

TOPIC	OBJECTIVE			CONTENT	METHODS/ STRATEGIES-	EVALUATION	AREAS OF INTEGRATION
	SKILLS	KNOWLEDGE	ATTITUDE				
					line.		
Addition and subtraction of numbers up to 4- digits	Computing Grouping and regrouping Investigating	Add and subtract numbers up to 4-digits without and with regrouping.	Work together to solve problems	Addition and subtraction of number up to 4-digits (including all difficulties) in either vertical or horizontal format.	Use expanded notation and place value to add and subtract whole numbers. Add and subtract 2-, 3-, and 4-- digit numbers without showing the expanded notation Use the commutative and zero properties to add whole numbers e.g. 15 + 9 = 9 + 15 = 24 448 + 0 = 0 + 448 = 448.	Add and subtract whole numbers using expanded notation. Add and subtract whole numbers without showing the expanded form. Complete number sentences to show commutative and zero properties. e.g. 12 + 6 = # 6 + 12 = # 17 + 0 =# 0 + 17 =# 146 + 125 =# 125 + 146 =# Make palindromes and state the number of steps used. Complete magic squares.	<u>Language Skills</u> Make up mathematics stories and solve problems.

TOPIC	OBJECTIVE			CONTENT	METHODS/ STRATEGIES-	EVALUATION	AREAS OF INTEGRATION
	SKILLS	KNOWLEDGE	ATTITUDE				
Adding a number to a given number and then subtracting the number that was added.	Communicating Computing Recognising patterns Observing Using patterns to make rules Investigating	Recognise that if a whole number is added to then subtracted from a given whole number, the result is the original whole number.	Set and achieve realistic goals	Addition and subtraction as inverse operations.	Add and subtract the same whole number from a given number than discussing the result. e.g. (a) 10 + 4 – 4 = 10 (b) 12 + 6 – 6 = 12. Generate a rule.	Solve problems in which a whole number is added to then subtracted from a given number without performing the operation. e.g. 8 + 104 – 104 =□ 29 – 8 + □ = 29 32 + □ - 17 =32	
Multiplication of 4-digit numbers by 1- and 2- digit numbers	Using expanded notation and the distributive property of multiplication Recognise and use number patterns	Multiply up to 4-digit numbers by 1 digit and 2-digit numbers including multiples of 10 up to 100.	Develop an inquiring mind	Multiplication of up to 4-digit numbers by 1 and 2 digit numbers including multiples of 10 up to 100.	Use expanded notation and the distributive property to multiply 1-,2-, 3 –, and 4 -digit numbers by 1 digit numbers. e.g. 598 x 9 = (500 + 90 + 8) x 9 = (500 x 9) + (90 x 9) + (8 x 9) = 4500 + 810 + 72 = 5382. Multiply 1-, 2-, 3- and 4-digit numbers without showing the expanded form Use repeated addition to multiply 1- digit number by 10 and by 100.	Use expanded notation and the distributive property to multiply 2-, 3- and 4 -digit numbers by 1-digit numbers. e.g. 427 x 9 Multiply up to 4-digit numbers by 1- digit numbers without showing the expanded form. Multiply 1 digit numbers by 10, 100.	Science Apply skills and knowledge to do activities that involve the multiplication of 2-.3-, and 4-digit numbers by 1- and 2-digit numbers.
					Multiplying 1- digit numbers by 1, 10, 100.	Multiply up to 4 digit numbers by	

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TOPIC	OBJECTIVE			CONTENT	METHODS/ STRATEGIES-	EVALUATION	AREAS OF INTEGRATION
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					e.g. 5 x 1 = 5 5 x 10 = 50 5 x 100 = 500 and discuss the relationship between the 1- digit numbers being multiplied, and the answers, to arrive at a rule for multiplying by 10 and 100. Identify patterns in multiplication of up to 4-digit numbers by 1- digit numbers and multiples of 10 up to 100 using the abacus and place value chart. e.g. 126 x 3 = 126 x 3 tens = 126 x 3 hundred = 126 x 3 = 126 x 30 = 126 x 300 =	10 and by 100. e.g. 1045 x 10 = 1045 x 100 = Multiply up to 4-digit numbers by 1- digit numbers and multiples of 10 up to 100. e.g. 2417 x 10 2417 x 20 2317 x 30	
					Use expanded notation and the distributive property to multiply up to 4- digit numbers by multiples of 10.	Use expanded notation to do problems of the following kind 329 x 30	

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	SKILLS	KNOWLEDGE	ATTITUDE				
					493 x 40 = (400+ 90 + 3)x 40 (400 x 40) + (90 x 40) + (3 x 40) 16000 + 3600 + 120 19720 Use expanded notation and the distributive property to multiply up to 4- digit numbers by 2 -digit numbers that are not multiplies of 10. Multiply up to 4-digit numbers by 2-digit numbers without showing the expanded notation. Use calculators to check answers.	Multiply up to 4-digit numbers by I- digit number using expanded notation and the distributive property Solve problems without using expanded notation e.g. 298 x 26 4562 x 43	
Division of 4-digit numbers by 1- and 2-digit numbers	Use basic multiplication and division	Divide up to 4 digit numbers by 1 and 2 digit numbers	Inquiring	Division of numbers up to 4 digit numbers by 1 and 2 digit numbers.	Dividing up to 4 digit numbers by 1 digit number using the basic multiplication and division facts. Using repeated subtraction to divide up to 4 digit numbers by 2 digit numbers e.g. $34\overline{)442}$ 13 - 340 – 10 times 34 102 102 – 3 times 34 0 - 13 times 34	Divide up to 4 digit numbers by 1 digit numbers. Divide up to 4 digit numbers using repeated subtraction.	

TOPIC	OBJECTIVE			CONTENT	METHODS/ STRATEGIES-	EVALUATION	AREAS OF INTEGRATION
	SKILLS	KNOWLEDGE	ATTITUDE				
					$52\overline{)3612}$ $\quad 69$ 52 x 100 2600 - 50 times 52 1012 520 - 10 times 52 492 - 260 - 5 times 52 232 - 208 - 4 times 52 24 69 times 52		
Mixed operations (multiplying and dividing a number by the same number)	Investigating Solving problems Recording results Recognising and using patterns Using rules	Recognise that if a whole number is multiplied by, and then is divided by the same number the result is the original number	Reason logically	Multiply and then divide a whole number by the same number.	Multiply a whole number by a given number, then divide the result by the same given number and then discuss the result 6 x 3 ÷3 = 6 Solve problems without performing the multiplication and division operations by using a rule.	Solve problem in which a whole number is multiplied by and then divided by a given whole number without performing the operation. e.g. 8 x 4 ÷ 4 = 9 x ! ÷ 6 = 9	Science Solve problems with a scientific approach.
Estimating answers to computations	Rounding – off numbers Estimating Approximating Predicting	Estimate answers to computation exercises involving the four operations by rounding-off	Value the need for approximation.	Estimate answers to computations (involving the four operations) by rounding-off numbers to the nearest ten, hundred, thousand and	Round -off numbers to the nearest 10 to simplify a problem and to get approximate answers. e.g. when adding 32 + 37 + 52, round-off each number to the nearest 10 by thinking of 32 as 30 37 as 40 52 as 50	Use rounded-off numbers to estimate answers. e.g. 87 x 21 = ! 95 + 54 + 38 =! 565 – 348 = ! 784 – 48 = !	

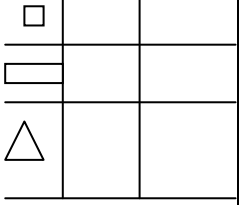
TOPIC	OBJECTIVE						AREAS OF INTEGRATION
	SKILLS	KNOWLEDGE	ATTITUDE	CONTENT	METHODS/ STRATEGIES-	EVALUATION	
				ten thousand.	then adding 30,40 and 50 to record the answer as 120 Find the actual answer e.g. 32 + 37 + 52 = 121 Compare the estimated answer and the actual answer and say if the estimated answers is reasonable or not. Extend the ideas in the above to round-off numbers to (a) the nearest 10 (b) the nearest 100 (c) the nearest 10000 (d) the nearest 10 000 N.B. When multiplying or dividing by a 1- digit number, neither the multiplier nor the divisor is rounded- off When multiplying a 2- or more than 2- digit number, round-off both the multiplicand and the multiplier. Both divisor and dividend are rounded-off when using rounded-off numbers to divide 2- or more than 2- digit numbers. Use calculators to estimate, calculate and verify answers		
Mixed	Applying rules	State and use the	Develop	Order of	Discuss the rules of	State and use the	Language

TOPIC	OBJECTIVE			CONTENT	METHODS/ STRATEGIES-	EVALUATION	AREAS OF INTEGRATION
	SKILLS	KNOWLEDGE	ATTITUDE				
operations- the use of BODMAS	Use step-by-step method in solving problems	order of operations in relation to mixed operations.	enthusiasm in solving problems	operations. B – Brackets O – Of D – Divide M – Multiply A – Add S – Subtract	order of operations i.e. "Brackets" followed by "of" then "Division," then "Multiplication," then "Addition," and lastly "Subtraction" Introduce "BODMAS ,"to assist in the memorisation of the order. Apply BODMAS e.g. 12 ÷ 4 x 3 + 2 3 x 3 + 2 9 + 2 11 Work abstract exercises related to mixed operations using BODMAS Use calculators to find values of mixed operations.	rule for order of operations in computation Quiz Puzzles Games	Skills Use the technical language of mathematics.
Calculating the Arithmetic Means of sets of values	Thinking logically Investigating Observing Generalising Applying rules Verifying answers Use sketches and diagrams in solving problems Using the calculator meaningfully	Recognise the arithmetic mean as a single value representing all values in a set	Use the calculator meaningfully and intelligently	The arithmetic mean of sets of values	Find the mean of two or more quantities derived from real life situations by pooling together the quantities and then redistributing these pooled quantities so that each share has the same amount. Discuss practical exercises of the above kind Discuss the computation involved in solving	Find the arithmetic mean of sets of values Solve simple problems	Language Skills Report on activities undertaken in mathematics

TOPIC	OBJECTIVE			CONTENT	METHODS/ STRATEGIES-	EVALUATION	AREAS OF INTEGRATION
	SKILLS	KNOWLEDGE	ATTITUDE				
					problems stating a rule for finding the mean of 2 or more quantities and using the rule to solve problems.		
Solving problems involving the four operations	Reading Analysing Calculating Problem solving	Solve 1- step and 2- step problems	Develop confidence in trying out new ideas	Word problems involving the 4 operations	Use concrete materials and diagrams to solve simple 1- step problem involving any of the 4 operations. Discuss, analyse, and use concrete materials and diagrams to solve 2-step problems which require the use of two of the four operations.	Solves simple 1- and 2-step problems using diagrams involving any of the four operations	Science Pose a question and seek to find answers.

GEOMETRY

TOPIC	OBJECTIVE			CONTENT	METHODS/ STRATEGIES-	EVALUATION	AREAS OF INTEGRATION
	SKILLS	KNOWLEDGE	ATTITUDE				
Geometry Properties of solids	Make models of solids from nets Identifying Observing Describing	Identify and state the properties of the cube, cuboid, cone, cylinder and sphere in terms of edges, surfaces and vertices.	Share ideas. Respect other pupils' contributions. Enjoy practical activities	Properties of solids (Number of edges, surfaces, vertices)	Identify and state the number of edges, surfaces and vertices on the cube, cuboid, cone, cylinder and sphere. Describe the nature of the edges and surfaces on these solids e.g. the edges are straight; the surfaces are curved. Record the properties of given solids Make models of the cube, cuboid, cone and cylinder from given nets	Make nets of solid. Complete a table showing properties of solid shapes.	Art and Craft – Making models and skeletons of solids

TOPIC	OBJECTIVE			CONTENT	METHODS/ STRATEGIES-	EVALUATION	AREAS OF INTEGRATION
	SKILLS	KNOWLEDGE	ATTITUDE				
					Play a game: "Can you find me?" e.g. I have two flat surfaces, one curved surface, two curved edges. Can you find me? Explain and present Euler's rule: Number of surfaces + Number of vertices = Number of edges +2		
Properties of plane shapes	Collecting Sorting Classifying Recording	Identify and state the properties of squares, rectangles and triangles in terms of sides and angles	Share ideas.	Properties of plane shapes – number of sides and angles.	Classify squares, rectangles and triangles according to sides and angles. State the number of sides and angles in given plane shapes. Record the properties of squares, rectangles, triangles on tables.	Complete a table showing properties of the plane shapes e.g. Shape | No. of SIDES | No. of ANGLES 	<u>Art</u> Make patterns using plane shapes.
Closed and open shapes	Identifying Differentiating Drawing Recognising boundary	Identify closed and open shapes	Develop self-reliance.	Closed and open shapes	Identify closed and open shapes and note the differences between them. Draw closed and open shapes. Recognise that closed shapes have a boundary;	Identify closed and open shapes from given diagrams. Identify inside, outside and on the boundary of plane shapes	Art Draw closed and open shapes

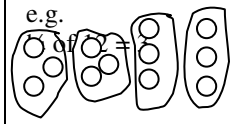
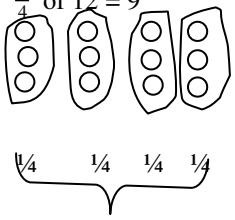
TOPIC	OBJECTIVE			CONTENT	METHODS/ STRATEGIES-	EVALUATION	AREAS OF INTEGRATION
	SKILLS	KNOWLEDGE	ATTITUDE				
					inside and outside. Identify inside, outside and on the boundary of given closed shapes.		
Polygons	Sorting Naming Recording Drawing	Classify and name polygons according to the number of sides and angles. Recognise that polygons are closed plane shapes with all its sides straight.	Observe relationships carefully	Polygons up to six sides.	Sort a given set of polygons according to the number of sides and angles. Name sets of polygons e.g. the set of triangles, quadrilaterals, pentagons and hexagons. Record the properties of these polygons on a given table. Draw different triangles, quadrilaterals, pentagons and hexagons.	Identify and name polygons from given information	Language Skills Use technical language of mathematics.
Type of angles	Using measuring instruments Identifying Communicating Comparing Drawing	Identify and name angles according to size Draw and measure angles of given sizes using the protractor	Develop accuracy in measuring.	Types of angles -right, acute, obtuse, and straight.	Identify right angles. Use cardboard right angles to show angles greater than a right angle; less than a right angle and equal to two right angles. Name these angles – obtuse, acute and straight angles. Identify the right angle,	Identify and name these angles from a given set of angles right, obtuse, acute and straight. Measure and name given angles. Draw and name angles as right, acute, obtuse and straight.	

TOPIC	OBJECTIVE			CONTENT	METHODS/ STRATEGIES-	EVALUATION	AREAS OF INTEGRATION
	SKILLS	KNOWLEDGE	ATTITUDE				
					obtuse angle, acute angle and straight angle from a given set of angles. Draw angles of given sizes and measuring them using the protractor.		
Recognising points, lines and line segments	Defining Drawing Naming Discussing Communicating	Differentiate between lines and line segments	Develop confidence in completing tasks	Points, lines, and line segments	Use dots to fill up the space between two given dots Discuss the picture formed to bring out that a line segment is a set of points. Use arrows to extend the line segment in both directions e.g $\leftrightarrow$ Discuss the representation of the line formed to establish the fact that a line goes on and on in both directions and a line is made up of a set of points. Discuss the difference between lines and line segments. Use letters to name points on the line to label line segments. Identify and name line	Draw representation of lines and line segments Identify line segments and lines from given diagrams. Name line segments using letters.	<u>Art</u> Make patterns involving line segments

TOPIC	OBJECTIVE			CONTENT	METHODS/ STRATEGIES-	EVALUATION	AREAS OF INTEGRATION
	SKILLS	KNOWLEDGE	ATTITUDE				
					segment and lines given two or three points on the line. Identify and draw lines and line segments.		
Types of lines	Classifying lines Drawing Observing Associating words and images	Identify parallel lines (relate to the environment) and draw parallel horizontal, vertical and sloping lines.	Enjoy mathematics activities	Parallel, horizontal vertical and sloping lines.	Identify and draw lines that run in the same direction. Recognise that lines that run in the same direction do not meet or cross and name such lines "parallel lines." Identify and draw parallel lines. Recognising that lines that are parallel to the earth's skyline (the horizon) are horizontal lines). Identify and draw horizontal lines. Identify and draw vertical lines. Identify and draw sloping lines using the environment e.g. V-roof of a house.	Identify parallel, horizontal, vertical and sloping lines form a given set of lines. Draw parallel, horizontal, vertical and sloping lines. -	<u>Art</u> Make simple line pattern using knowledge of parallel, horizontal, vertical, and sloping lines.

TOPIC	OBJECTIVE			CONTENT	METHODS/ STRATEGIES-	EVALUATION	AREAS OF INTEGRATION
	SKILLS	KNOWLEDGE	ATTITUDE				
Testing for congruency with respect to line segments, angles and polygons	Identifying Comparing Observing Measuring and testing for congruency.	Identify congruent line - segments, angles and polygons.	Develop team spirit	Congruent line segments, angles and polygons.	Identify line segments, angles and polygons. Identify line segments of equal lengths, angles of equal sizes and polygons of equal size and shape. Use the word "congruent" to name equal line – segments, equal angles and polygons of same size and shape. Test for and identify congruent line segments, congruent angles and congruent polygons, using edges of paper, angles made from cardboard strips and templates of polygons	Identify congruent line – segments, angles and polygons from given diagrams	
Lines of symmetry	Using pupil-manipulated aids Observing Drawing Identifying Communicating	Identify lines of symmetry of squares, circles, rectangles and other shapes.	Appreciate symmetry in nature e.g. shape of butterflies	Lines of symmetry on plane shapes.	Fold geometric cut-outs to find lines of symmetry. Use mirrors and carbon paper to show symmetry of given shapes. Draw lines of symmetry on given shapes. Identify all the lines of symmetry on given shapes.	Draw lines of symmetry on given shapes. Identifying lines of symmetry on given diagrams. Identify the number of lines of symmetry on given shapes.	Art Drawing and colouring mirror patterns.

FRACTIONS

TOPIC	OBJECTIVE						AREAS OF INTEGRATION
	SKILLS	KNOWLEDGE	ATTITUDE	CONTENT	METHODS/ STRATEGIES-	EVALUATION	
FRACTIONS Finding fractional parts of given quantities.	Computing Grouping Sharing Shading and colouring	Find fractional parts of given quantities	Work cooperatively	Fractional parts of quantities	Find fractional parts of given quantities by grouping, sharing, shading and colouring e.g.  ¼ ¼ ¼ ¼ $\frac{3}{4}$ of 12 = 9  ¼ ¼ ¼ ¼ 9 DIAGRAM	Find Fractional parts of given quantities using sets of objects e.g. Find 3/5 of 20 exercise books.	Language Skills Use the language of mathematics in communicating e.g. I spent one fifth of my money on icicles.
Equivalent fraction.	Using charts and diagrams Explaining Writing Generalising	Recognise sets of equivalent fractions.	Work in the imagination	Equivalent fractions as naming the same fraction	Use charts and diagram to identify and name a set of equivalent fractions for a given fraction	Write sets of equivalent fractions (using fraction charts. Find equivalent	

TOPIC	OBJECTIVE						AREAS OF INTEGRATION
	SKILLS	KNOWLEDGE	ATTITUDE	CONTENT	METHODS/ STRATEGIES-	EVALUATION	
	Applying rules				Describe equivalent fractions Write a rule for finding equivalent fractions and use this rule to find sets of equivalent fractions. Use cross products to check for equivalent fraction e.g. **½ = 6/12** **then 1 x 12 = 12** **and 2 x 6 = 12** **as shown through cross multiplication so the fractions are therefore equivalent.**	fractions for given fractions using a rule. Find out if the two fractions are equivalent by using these cross products.	
Comparing fractions	Comparing fractions Recognising number patterns Generalising Using pupil-manipulated aids	Recognise that fractions can be compared	Enjoy mathematics activities .	Compare fractions: -Unit fractions. -Fractions with the same numerator -Fractions with the same denominator	Folding, shading, cutting and labelling strips of cardboard of equal length to show unit fractions. Use a fraction chart to compare and write number sentences to show comparison of unit fractions. Use fraction charts to compare	Use fraction charts to compare unit fractions,fractions with the same numerator, and fractions with the same denominator. Compare sets of fractions by inserting the symbo > is greater than < is les an	

TOPIC	OBJECTIVE						AREAS OF INTEGRATION
	SKILLS	KNOWLEDGE	ATTITUDE	CONTENT	METHODS/ STRATEGIES-	EVALUATION	
					fractions with the same numerator. Use fraction charts, diagrams, and number lines to compare fractions with the same denominator Use the comparison symbols >,<, =, to write number sentences to show comparison of fraction with the same numerator. Use fraction charts, diagrams, number lines to compare fractions with the same denominator	= is equal to (1) $\frac{2}{3}$ $\frac{5}{3}$ (2) ½ $\frac{2}{4}$ (3) $\frac{3}{4}$ $\frac{7}{8}$ Number line activities Quiz	
.	.		.	.	- Use the comparison symbols >, <, =, to write number sentences to show comparison of fractions with the same denominator.		

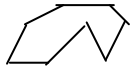
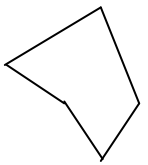
TOPIC	OBJECTIVE			CONTENT	METHODS/ STRATEGIES-	EVALUATION	AREAS OF INTEGRATION
	SKILLS	KNOWLEDGE	ATTITUDE				
					- Identify a rule for comparing fraction with the same denominator and use the rule to compare such fractions.		.
Write given fractions in lowest terms.	Computing Identifying and using rules Recognising and using number patterns	Recognise that fractions can be written in lowest terms	Apply previous knowledge intelligently to solve problems	Fraction in lowest terms.	Write a set of equivalent fractions for a given fraction. $\boxed{1/3} = \frac{2}{6} = \frac{3}{9} = \frac{4}{12} = \frac{5}{15} = \frac{6}{18}$. Select the fraction in lowest terms from the set of equivalent fractions -1/3, 2/6, 3/9, 4/12, 5/15, 6/18 Write and apply a rule for finding fractions in lowest terms. Find all the factors of pairs of numbers. Identify and use the highest common factor of pairs of numbers.	Identify fractions in the lowest terms. - Complete given sentence to show fraction in lowest term.	Art and Craft. Science. Social Studies.

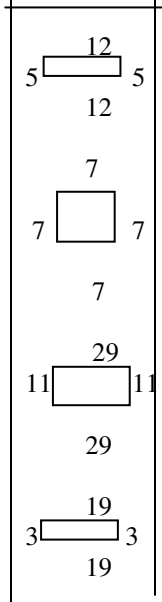
TOPIC	OBJECTIVE						AREAS OF INTEGRATION
	SKILLS	KNOWLEDGE	ATTITUDE	CONTENT	METHODS/ STRATEGIES-	EVALUATION	

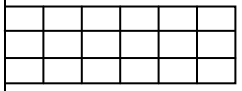
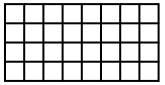
MEASUREMENT

TOPIC	OBJECTIVES			CONTENT	METHODS/ STRATEGIES-	EVALUATION	AREAS OF INTEGRATION
	SKILLS	KNOWLEDGE	ATTITUDE				
MEASUREMENT LENGTH. Measuring in km, m and cm.	Grouping lengths in order.	Compare different lengths using centimetres, metres and kilometres.	Sharing "lengths" with different measurement. Listening to each other.	Lengths can be measured in centimetres, metres; kilometres among other units.	Comparing metre and centimetre, metre and kilometre. Listing lengths that can be measured in centimetres, metre and kilometre. Discussing reasons why long distances are measured in kilometres. Recognising that 100 m = 1 km 100 cm = 1 m.	Making a chart to show lengths that can be measured in centimetres, metres and kilometres. cm: Length of book Height of pupils m: Length of Room. Perimeter of school Yard Length of Path way Distance of races km: Distance a vehicle travel. Length of Road or Street etc built in Commu-nity.	Social Studies – plan of school and compound.

TOPIC	OBJECTIVES			CONTENT	METHODS/ STRATEGIES-	EVALUATION	AREAS OF INTEGRATION
	SKILLS	KNOWLEDGE	ATTITUDE				
Estimating lengths using standard measurements.	Investigating lengths.	Compare and Estimate length of a variety of objects..	Developing confidence sharing with each other. Listening to each other	Lengths can be measured in smaller units – millimetres, centimetres. Smaller units can be converted to larger units – millimetres to centimetres, centimetres to metres, metres to kilometres.	Estimating and measuring objects in millimetre, centimetre and metre. Recording the estimated and measured lengths on table. Comparing and discussing the information on the table.	Making a table to show objects, estimated and measured length. Objects | Estimated | Measured Stick of chalk fingernail ex book pencil	Comprehension – passage on measuring of lengths in the environment.
Converting linear measurements from one SI unit to another – smaller to larger.	Converting smaller units to larger units using decimal notations.	Convert millimetre to centimetre, centimetre to metre and metre to kilometre using decimal notation	Show willingness to work together in groups, willingness to share and appreciate each other.	Lengths can be converted from smaller units to larger units - millimetre to centimetre, centimetres to metre, metre to kilometre using	Using metre strips marked off in millimetre and centimetre, pupils will measure a variety of objects. Group Work. 26 mm = 2 cm 6 m = 2.6 cm.	Making chart to show measurement of a variety of objects and conversion. OBJECTS | MEASURE-MENT. | DECIMAL Length of | 21 cm | - | 0.21 m	Social Studies – map work – distance of one place to another. Science measuring growth – Germination distance travelled

TOPIC	OBJECTIVES			CONTENT	METHODS/ STRATEGIES-	EVALUATION	AREAS OF INTEGRATION
	SKILLS	KNOWLEDGE	ATTITUDE				
				decimal notation.	19 mm = 1 cm 9 mm = 1.9 cm. 59 cm = 0.59 m. 68 cm = 0.68m. Recognising a rule for changing from a smaller unit of measure to a larger unit of measure.	Book Length of desk 57 cm - 0.57 m Length of fingernail 18 mm 1 cm 8 mm 1.8 cm Length of eraser 27 mm 2 cm 7 mm 2.7 cm	– force writing poems to help pupils to remember patterns.
Converting linear measurements from one SI unit to another – larger to smaller.	Converting larger units to smaller units using decimal notation.	Convert centimetre to millimetre, kilometre to metre.	Willingness to appreciate, share and work together in group. Care taken when measuring.	Length can be converted from larger units to smaller units to smaller units. Centimetre to millimetre, metre to centimetre and kilometre to metre.	Using metre strips and a variety of objects seeing a pattern. 2.4 cm = 24 mm 5.7 cm = 57 mm 1.9 cm = 19 mm 3.2 m = 320 cm 1.6 m = 160 cm 5.9 m = 590 cm.	Making chart to show OBJECTS / LARGER UNITS / SMALL UNITS Height of a friend — 3.5 m — 350 cm Height of chalk box Length of a stick of chalk Length of a Small plant Length of A fruit e.g. flamboyant	Social Studies – Map Work – calculate distance from one place to another. Science – Growth - forces Writing poems to remember pattern.
Perimeter of plane shapes (bounded)	Measuring lengths. Finding the sum of lengths.	Find the sum of the lengths of the sides of any plane shapes which is equal to its perimeter.	Willingness to participate in group activities.	Perimeter is the distance around a plane shape e. g. the top of a cardboard box.. Perimeter can be calculated by adding all the	Using a tape measure or metre stick to measure the distance around a plane shape. Measure the lengths of all the sides of a plane	Complete table Shape / Perimeter   	Comprehension – a passage on athletics sports.

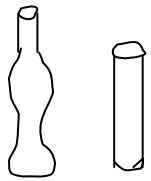
TOPIC	OBJECTIVES			CONTENT	METHODS/ STRATEGIES-	EVALUATION	AREAS OF INTEGRATION
	SKILLS	KNOWLEDGE	ATTITUDE				
				lengths of a shape.	shape. Finding the sum of all the sides.		
Deriving the formula for finding the perimeter of a plane shape.	Using formula to find perimeter of squares and rectangles.	Deriving the formula for finding Perimeter of a square and a rectangle.	Willingness to participate in group activities.	Perimeter of square and rectangles Square P = 4 s Rectangle P = 2(length + breadth)	Comparing and discussing lengths of squares and rectangle. Stating a formula for perimeter of rectangle and square.	Complete table Shape | Peri | Formula  	School athletic sports and school gardening.

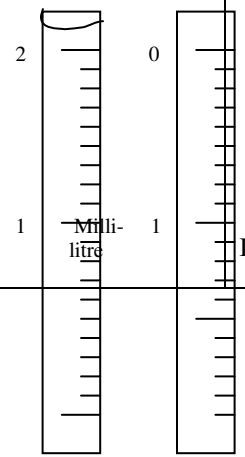
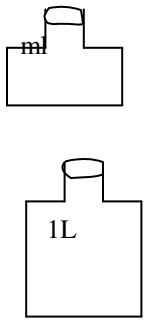
TOPIC	OBJECTIVES			CONTENT	METHODS/ STRATEGIES-	EVALUATION	AREAS OF INTEGRATION
	SKILLS	KNOWLEDGE	ATTITUDE				
Area Estimating the area of any plane shape by counting the number of squares it occupies.	Determining the area of regular and irregular shapes using geo boards, or grids.	Finding out that the area of a shape is determined by counting of number of unit squares it contains.	Working co-operatively to complete a common task.	The area of regular and irregular shape can be calculated by counting squares on a grid.	Geoboards, square grids, unit squares Estimating the number of squares to tile a regular shape or irregular shape. Making regular and irregular shapes, and find area by counting the number of squares on grid.	Each child shows a shape on geoboard or square grids with the given area.	Art – Making geoboards, grids.
Find the area of a plane shape by calculation.	Calculating the area of regular and irregular shapes using geoboards, grids.	Calculate the areas of regular shapes using formulae.	Show willingness to work in group.	The area of some common shapes can be calculated by using a formula – area of rectangle - area of square..	Using a grid pupils find the area of some common shapes.  Using grid of 18 unit-squares Using formula = L x W = 6 x 3 = 18 units^2	Complete Table Shape | Area  	Art Painting Spraying of insecticide in the garden.

TOPIC	OBJECTIVES			CONTENT	METHODS/ STRATEGIES-	EVALUATION	AREAS OF INTEGRATION
	SKILLS	KNOWLEDGE	ATTITUDE				
Solving problems involving area and perimeter.	Solving problem involving area and perimeter using SI units only.	Solve problems related to everyday life activities.	Show willingness to work in groups to complete a project.	Word Problems involving . 1-step and 2-step stages for area and perimeter.	Solving problems from the environment which involve area and perimeter	Solve 1-step and 2-step problems involving the four operation applied to measurement of length. Solve problems based on area and perimeter.	Agriculture – kitchen garden related problems.

CAPACITY

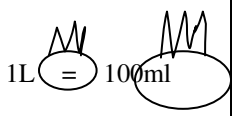
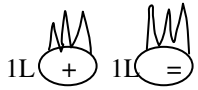
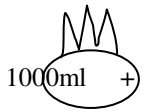
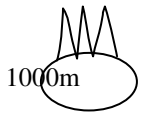
TOPIC	OBJECTIVE			CONTENT	METHODS/ STRATEGIES-	EVALUATION	AREAS OF INTEGRATION
	SKILLS	KNOWLEDGE	ATTITUDE				
Capacity	Estimating recording measuring	Estimate, measure and record the capacity of given containers in litres.	Sharing and co-operating with others in activities.	Capacity in litre.	Estimating, measuring and recording the capacity of containers of different shapes and capacities in litre.	A 2-litre container can be filled with – 1 litre water.	Language. Arts: Reading and completing sentence.



TOPIC	OBJECTIVE			CONTENT	METHODS/ STRATEGIES-	EVALUATION	AREAS OF INTEGRATION
	SKILLS	KNOWLEDGE	ATTITUDE				
		Estimate, measure and record the capacity of given containers in millilitres.		Capacity in millilitres 1000ml = 1L 10ml = 1cl 100cl = 1L 1cl = 10ml x 100 = 1000ml = 1L	Calculating the number of millilitres in a litre by dividing a centilitre into millilitres. 	How many millilitres of water can fill a 1L container?  Identify a 100ml container.	Art and Craft – Making millilitre strips

TOPIC	OBJECTIVE			CONTENT	METHODS/ STRATEGIES-	EVALUATION	AREAS OF INTEGRATION
	SKILLS	KNOWLEDGE	ATTITUDE				
					2 0		
					- Making millilitre strips to paste on containers. - Estimating, measuring and recording the capacity of given containers in millilitres.		
	Recording discussing	Recording the estimated and measured capacity of each container on a table discussing same.	Sharing results	Cont. Est. Meas Ice-Cream Cont. 50ml ___ Small Drink Bottle 200ml ___	Completing and discussing the table	A small drink bottle contains __ml of drink.	Lang. Arts: Reading and completing sentence. Art: Draw up table. Health Ed: Amount of liquid

TOPIC	OBJECTIVE			CONTENT	METHODS/ STRATEGIES-	EVALUATION	AREAS OF INTEGRATION
	SKILLS	KNOWLEDGE	ATTITUDE				
				Tussedryl150ml ___ Bottle			one must consume per day.
	Calculating converting	Convert millilitres to litres using decimal notation.	Co-operating to calculate and convert measurements.	Conversion millilitres to litres using decimal notation.	- Measuring the capacity of given containers using a litre container calibrated (divided) in millilitre stating capacity in millilitres, litres and millilitres. e.g. 1210ml = 1L 210ml or 1210ml = 1.210L.	- Measure the capacity of a 3L-oil container in millilitres. Convert to decimal notation. 2538ml = __L. Convert into L and ml. 7.942L = L ___ml.	
	Writing discussing	- Recognising a rule and using same to convert ml to L.	Respecting each other's contribution to discussion	Rule: To convert ml to L we must divide by one thousand.	Using rule to convert ml to L.	Convert to L 3642 = ____L 931d ml = ____L.	Language. Arts: The art of discussion.

TOPIC	OBJECTIVE			CONTENT	METHODS/ STRATEGIES-	EVALUATION	AREAS OF INTEGRATION
	SKILLS	KNOWLEDGE	ATTITUDE				
				e.g. 9253ml = ___L $\frac{9253}{1000}$ = 9.253L			
	Calculating writing	Convert litres to millilitres. Use parcels to show conversion easily.	Co-operating to do activities.	Conversion – litres to millilitres     	Measuring quantities in litres; litres and recording these measures to millilitres e.g. 3L = 3 x 1000 = 3000ml. 2L 150ml = (2 x 1000) + 150ml = 2150ml.	How many ml are there in 4L 634ml?	Craft – Making parcels. Science: Materials and their uses.

TOPIC	OBJECTIVE			CONTENT	METHODS/ STRATEGIES-	EVALUATION	AREAS OF INTEGRATION
	SKILLS	KNOWLEDGE	ATTITUDE				
	Calculating converting,	Solve simple problems involving the four operations without and with conversion	Working in co-operation with one another.	Word problem involving the four operations applied to capacity. e.g. Tom bought 5L oil, Jean bought 7L 450ml and Mark bought 6L 30ml. How much oil had they altogether?	Solving simple problems involving the four operations applied to capacity without and with conversion.	(1) If there are 6L 520ml of water in a tank, how many ml of water is in the tank? (2) A barrel contains 785ml of wine. How many L and ml of wine will be in 5 such barrels?	Language. Arts: (1) Story-Telling as in problems. (2) Reading problem. (3) Comprehension understanding problems. (4) Composition – writing statements to problems

MASS

TOPIC	OBJECTIVE			CONTENT	METHODS/ STRATEGIES-	EVALUATION	AREAS OF INTEGRATION
	SKILLS	KNOWLEDGE	ATTITUDE				
MASS.	Estimating, measuring and recording the mass of objects	Identify the appropriate unit for measuring the mass of different objects.	Taking turns to estimate the mass of others pupils in the group or class.	Mass: The amount of matter an object contains is called its mass. The mass of	Estimating the mass of items in kilograms and verifying using a bathroom scale, e.g. school bag, a pupil. Determining the mass of objects and recording the results on a table.	Which unit is more appropriate for measuring the mass of each? Object | g | kg	Science Social Studies

TOPIC	OBJECTIVE			CONTENT	METHODS/ STRATEGIES-	EVALUATION	AREAS OF INTEGRATION
	SKILLS	KNOWLEDGE	ATTITUDE				
				objects is measured in grams and kilograms. Kilogram is used to measure heavy things. Grams are used to measure light objects.			
Conversion of mass measurements	Converting grams to kilograms using decimal notation. Converting kilograms to grams.	Express gram in kilograms, and grams in kilograms and grams.	Willingness to work independently and in groups.	Conversion 1 kg = 1000 g. To change kg to g multiply by 1000. To change g to kg divide by 1000.	Weighing different objects in grams using a scale then re-writing these answers in kilograms; and in kilograms and grams e.g. 3125 grams = 3 kg 125 g. Recording the converted measurements in decimal notation e.g. 3125 g = 3.125 kg.	(a) Estimate the mass of objects in the classroom. (b) Measure the same objects using a scale. (c) Record and compare estimated and actual measurements.	Science and Social Studies
Problem Solving involving maaa	Solving problems involving the four operations.	Read and interpret word problems. Solve one and two step word problems involving mass.	Working co-operatively in groups to complete activities.	Problems involving the four operations. Word problems.	Outlining problem solving strategies. Solving problems involving the four operations without and with conversion.	Solve the problems. (1) If 1 box weighs 135 kg what is the total weight of 12 similar boxes? (2) The total mass of 3 boxes is	Social Studies and Science.

TOPIC	OBJECTIVE			CONTENT	METHODS/ STRATEGIES-	EVALUATION	AREAS OF INTEGRATION
	SKILLS	KNOWLEDGE	ATTITUDE				
						250 kg. If the weight of two of two of then are 68 kg and 79 kg, what is the weight of the third box?	

TIME

TOPIC	OBJECTIVE			CONTENT	METHODS/ STRATEGIES-	EVALUATION	AREAS OF INTEGRATION
	SKILLS	KNOWLEDGE	ATTITUDE				
TIME Using the 24-hour clock notation Year, decade, century	Reading, calculating and differentiating time.	Use the 24-hour clock to read and write time. - Show the relationship between a year, a decade and a century.	Co-operating and sharing ideas. Working collectively on time projects.	Time concept – year, decade, century 1-year 365¼ or 366 days. 1 Decade – 10 years. 1 Century – 100 years. Definition of a leap year to include century years.	Use of the calendar. Showing the relationship between a year and a decade; a year and a century; a decade and a century. Stating the number of years in a decade, in a century and the number of decades in a century.	Complete the following: 12 months = ____ year(s). ____ Years = 1 decade. 50-years = ____ decades. ____ Years = 1 century.	Social Studies: (1) Cricket – scores recordings . (2) Develop-ment Monu-ments (3) Historical Events.
Time conversion Introduction to time zones	Reading, calculating and differentiating time. Telling time of countries sharing the same time zone.	Convert smaller units of time to larger units and vice-versa. Finding time zones on the world map.	Co-operating and sharing ideas.	Time Conversion. Minutes to hours; Hours to days; Days to weeks; Weeks to months; Months to years;	Showing the relationship between minutes and hours; hours and days, days and weeks; weeks and months; months and year; year and decade; decade and century. - Stating the number of	Complete the following :- ¼ of a month = __ weeks. ¼ hour = __ minutes. ½ a century = __ years. etc. Determining the	Social Studies: (1) Develop-ment. (2) Monu-ments. (3) Historical Events.

TOPIC	OBJECTIVE			CONTENT	METHODS/ STRATEGIES-	EVALUATION	AREAS OF INTEGRATION
	SKILLS	KNOWLEDGE	ATTITUDE				
				Years to decades; Decades to century and vice-versa. Time zone concept,	minutes in an hour; hours in a day, days in a week; weeks in a month; months in a year; years in a decade; decades in a century. - Converting minutes to hours; hour to days; days to weeks; weeks to months; months to years; year to decade etc. and vice-versa. - Solving simple problems involving the four operations. - Using the map of the world to find various time zones.	time in countries sharing the same time zone,	

MONEY

TOPIC	OBJECTIVES			CONTENT	METHODS/ STRATEGIES-	EVALUATION	AREAS OF INTEGRATION
	SKILLS	KNOWLEDGE	ATTITUDE				
MONEY: Calculating money exchange	Counting money, recording change	Solving one-step and two-step money problems.	Appreciate the need for good record keeping in any business enterprise.	Word problem:- involving the 4 – operations as applied to money.	- Solving simple one-step money problems involving the four operations.	- One book costs $24. Find the cost of four books. - If 10	Grammar – Subject and verb agreement

TOPIC	OBJECTIVES			CONTENT	METHODS/ STRATEGIES-	EVALUATION	AREAS OF INTEGRATION
	SKILLS	KNOWLEDGE	ATTITUDE				
	Calculating exchange rates. Recording rates Reading rates.	Convert foreign currency to local currency and vice versa.	Appreciating the value of money.	Currency conversion using current exchange rate	- Estimating cost of more than one article. - Calculating bills (using realistic prices). - Discussing the different currencies used in the Caribbean. - Discussing the way foreign currency is written in banks and on cheques (e.g.) G$10, T.T$5.00 US$20.00 C$50.00 Bds$2.00 - Collecting and displaying foreign exchange rate N.B. Rates must be checked at a Bank before lesson is taught - Discussing the different currencies used in the	mangoes cost $200 what is the cost of five mangoes? If US$1.00 = G$150. What is the value of these amounts in Guyana dollars? (a) US$10.00 (b) US$7.00 (c) US$25.00	Social Studies Currencies related to other countries1

TOPIC	OBJECTIVES			CONTENT	METHODS/ STRATEGIES-	EVALUATION	AREAS OF INTEGRATION
	SKILLS	KNOWLEDGE	ATTITUDE				
					Caribbean in relation to the local currency. - Solving simple problems involving conversion of foreign currency to local currency.		

GRAPHS

TOPIC	OBJECTIVE			CONTENT	METHODS/ STRATEGIES-	EVALUATION	AREAS OF INTEGRATION
	SKILLS	KNOWLEDGE	ATTITUDE				
GRAPHS Collecting and displaying data on simple pictographs, bar-graphs and point graphs.	Identifying pictographs, bar graph and point graphs.	Describe a pictograph, bar-graph and point graphs in relation to data presented.	Appreciate the value of neatness in graphical representations.	Graphs: pictographs and bar graphs and point graphs. Scales used for graphical displays.	- Collecting and displaying data on simple pictographs, bar graphs and point graphs.	Projects on graphical displays for data collected for a specific group assignment.	Art and craft. Science Language Environmental audit. Spelling of words Road safety
Pictographs, bar-graphs, point graphs and pie charts.	Differentiating among the various graphical representations.	Read and interpret pictographs, bar-graphs, point graphs and pie charts.	Willingness to share ideas working in groups.	Graphs: pictographs, bar graphs, point graphs and pie charts. Scales used for graphs. Angular measurement for the pie	- Reading and interpreting data on simple pictographs and bar graphs where one picture represents one more than one objects.	- Read and interpret information on given pictographs, bar graphs, point graphs and pie charts. - Pupils draw a	Art and craft. Science Language Environmental issues. Spelling of words Road safety

TOPIC	OBJECTIVE			CONTENT	METHODS/ STRATEGIES-	EVALUATION	AREAS OF INTEGRATION
	SKILLS	KNOWLEDGE	ATTITUDE				
				chart. Interchange of axes to vary some of the displays. **Concepts**: Pictograph Frequency table Point graph Scale Axes Sector	- Reading and interpreting data on simple given point graphs and pie charts.	variety of graphs to illustrate data collected in group projects.	
Construct and read tally charts and frequency tables.	Identifying tally charts and frequency tables.	Read tally charts and frequency tables and make deductions.	Recognise that data when presented in graphical form can distort the true picture sometimes.	Tally charts and the method for constructing tallies. How to convert a tally chart to a frequency table. **Concepts**: Pictograph Frequency table	- Discussing the meaning of tally and how tally are written. - Using matchsticks/ - popsicle sticks and other similar objects to show numbers that are greater then five. - Converting a tally chart to a frequency table, and vice versa. - Collecting and displaying	- State the numerals that given tallies stands for and vice versa. - Construct tally charts and tables using given information. - Generation of random data using dice and playing cards, etc. and displaying the information in an appropriate	Road safety data. Classification in Science and Social studies. Conducting surveys in students' preferences.

<table>
<tr><th rowspan="2">TOPIC</th><th colspan="3">OBJECTIVE</th><th rowspan="2">CONTENT</th><th rowspan="2">METHODS/ STRATEGIES-</th><th rowspan="2">EVALUATION</th><th rowspan="2">AREAS OF INTEGRATION</th></tr>
<tr><th>SKILLS</th><th>KNOWLEDGE</th><th>ATTITUDE</th></tr>
<tr><td></td><td></td><td></td><td></td><td></td><td>information on tally charts and table from random events using dice and playing cards.
- Reading and interpreting information on tally charts and frequency tables.</td><td>tabular form.</td><td></td></tr>
<tr><td>Construct frequency tables using tallies and use these to find the mode of a set of data.</td><td>Distinguishing the difference between a frequency table and a tally chart.
Converting a tally chart to a frequency table.</td><td>Discuss the meaning of the term average.
Describe and find the mode of a set of data.</td><td>Sharing responsibilities while working on a collective task.</td><td>Tally charts
Frequency tables
Average and types of averages.

The mode is an average.
The are other averages such as the mean and the median.
Concepts:
Pictograph
Frequency table
Point graph
Scale
Axes</td><td>- Displaying given information on a tally chart.
- Counting the tallies to build a frequency table e.g.
<table><tr><th>shoe size</th><th>tally</th><th>frequency</th></tr><tr><td>3</td><td>llll</td><td>4</td></tr><tr><td>4</td><td>~~llll~~ l</td><td>6</td></tr><tr><td>5</td><td>lll</td><td>3</td></tr><tr><td>6</td><td>ll</td><td>2</td></tr></table>- Determining from information on</td><td>Social surveys data collection and tabular displays.</td><td>Social Studies.

Community social surveys.</td></tr>
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TOPIC	OBJECTIVE			CONTENT	METHODS/ STRATEGIES-	EVALUATION	AREAS OF INTEGRATION
	SKILLS	KNOWLEDGE	ATTITUDE				
					table the event that occurs most frequently. Example: Which shoe size occurs most frequently (size 4). - Use the term "MODE" to name the most frequent occurrence. - Finding the mode from given frequency tables.		
Using information given in tables or tally charts to construct bar graphs and vice versa.	Drawing a bar graph from information collected.	Describe and use data given in a table to construct a bar graph and vice versa.	Working in groups to complete a project.	Tally Charts Frequency tables Bar graphs **Concepts:** Pictograph Frequency table Point graph Scale Axes	- Reading information on tally charts and table. - Constructing bar graphs using information given in tables or tally charts. - Constructing tables or tally charts using information on bar graphs.	Construct bar graphs using information given in tables and tally charts.	Art: Drawing of bar graphs. Social Studies: Showing the main economic activity done in your area.

TOPIC	OBJECTIVE			CONTENT	METHODS/ STRATEGIES-	EVALUATION	AREAS OF INTEGRATION
	SKILLS	KNOWLEDGE	ATTITUDE				
Constructing pictographs, bar graphs and point graphs to show the information contained in tables and tally charts.	Constructing tables from data generated. Constructing graphs to match data on tables constructed.	Describe information contained in tables constructed. Deduce information presented either in tabular or graphical forms.	Recognise the responsibility of each member of a group in doing a collective exercise. Appreciate the importance of neatness in graphical displays.	Pictograph, bar graphs and point graphs. **Concepts**: Pictograph Frequency table Point graph Scale Axes	- Using information contained in tables and tally charts to construct pictographs and point graphs. - Graph paper and the goeboard are ideally suited for the exercises.	Read, interpret and construct pictographs, bar graphs and point graphs from given information in table and tally chart.	Language: Improving vocabulary skills and Reading skills.