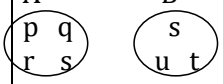
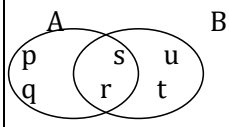
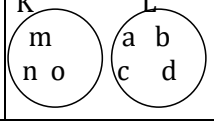
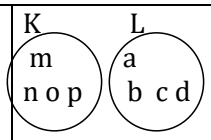
MATHEMATICAL SCHEME OF WORK FOR PRIMARY FOUR TERM 1

Learning outcome: The learner demonstrates the knowledge of sets in solving problems in everyday life situations.

WK	PD	TOPIC		SUB TOPIC	COMPETENCES		CONTENT	INDICATORS OF LIFE SKILLS AND VALUES	MTHDS	ACTIVITY	RESOURCES	REM
					SUBJECT	LANGUAG						
1	1	SETS	SETS CONCEP	Identifies sets	-Names sets -Count members in a set -Identifies sets	-reads words in sets -spells given words -describes sets	Definition of a set A set is a collection of well defined objects Objects found in a set are called elements or members Naming and counting members in a set ☆ ☆ ☆ ☆ ☆ A set of five Stars Counting members Set K = { 1, 2, 3, 4, 5, 6}	Logical thinking Problem solving Effective communication taking a decision	Explanation Guided discovery	Defining a set Naming sets Counting members in a set	Mk Maths book 4 Real objects Chalk board	

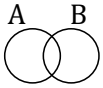
			T S				6 members in set K n(K) = 6	making a choice			illustration	
	2			Types of sets	-Names the symbols -Lists set symbols and their meaning Spells words Reads words	-spells new words -reads words -writes new words	Universal sets ε Union set $\cup$ Intersection set $\cap$ Equal set $=$ Equivalent set $\leftrightarrow$ Subset $\subset$ Empty set $\{\}$ Empty/ null set Joint set Disjoint set Members of $\in$	Logical thinking Problem solving Effective communication	Explanation Guided discovery Discovery	Naming types of sets Writing types of sets Drawing symbols for sets	Chalk board illustration	
	3				-defines equal and non equal sets -identifies the two sets	-reads the set symbols -writes the symbols of equal and non equwal sets	Equal sets (=) These are sets which have equal number of members and of the same kind Example A B 1 2 3 4 3 4 2 1 Set A and B are equal Set A = Set B	Logical thinking Problem solving Effective communication Accuracy Critical thinking	Explanation Guided discovery Discovery	Naming types of sets Writing types of sets Drawing symbols for sets	Chalk board illustration	
	4				-identifies equivalent and non equivalent	-reads the new words -writes the set symbols	Equivalent sets ($\leftrightarrow$) These are sets which have the same number of members but different kind	Logical thinking Problem solving	Explanation Guided discovery	Naming types of sets	Chalk board illustration	

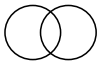
					- differentiates equivalent from equal sets	-uses them into sentences	Example Set R = { w, x, y, z} S = { a, b, c, d} Set R and S are equivalent Set R ↔ Set S	Effective communication Accuracy Critical thinking	Discovery	Writing types of sets Drawing symbols for sets		
	5				-Describes joint and disjoint sets -Identifies joint and disjoint sets	-writes the new words -uses the new words -spells and reads the new words	Joint and disjoint sets Joint sets are sets with common members   Members belong to set A and B disjoint sets are sets without common members.  	Logical thinking Problem solving	Explanation Guided discovery	Identifying joint and disjoint sets	Mk math book 4 chalk board illustration	

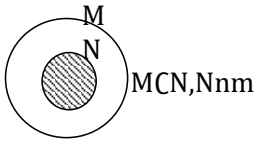
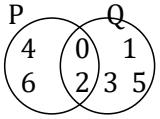
												
	6				-describes an intersection set -finds intersection set using symbols -countd memberes	-reads new words -uses them to identify members -writes the new words	Intersection set is a set formed of common members found in given sets. (more than one set) Example: X= { 0, 2, 4, 6} Y = { 2, 3, 5} X∩Y = {2} n(XnY) = 1	Logical thinking Problem solving Effective communication Taking a decision	Explanation Guided discovery Discovery Accuracy Critical thinking	Finding intersection on sets	Mk Maths book 4 Chalk board illustrations	
	7				-Describes an empty set -Draws symbols for empty sets -identifies symbol	-writes the set symbol -draw the set symbol -reads the set symbol -gives examples of empty sets.	Empty sets/ null sets An empty set is a set without membets Another word for empty set is null set. {} Example P = (men who breast feed) Q= (houses made of hair) K = (m, a, n)	Logical thinking Problrm solving Effective communication Accuracy	Explanation Guided discovery Discovery	Describing an empty set Giving examples of empty sets	MK Math Book 4 page 6 and 12 Chalk board	

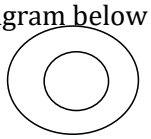
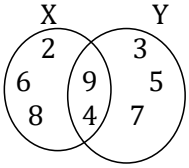
							L = (b, o, y) Find K∩L K∩ $L = \{\}$	Critical thinking	Think, pair and share		illustration	
2	1 and 2				-identifies the set symbol -describes the set union set -gives example	-writes set symbol -reads the symbol	Union sets: sets formed of members found in more than one set without repeating a member ∪ is a symbol for union set Example M = { a, b, c, d} N = {d, o, g} M∪N = { a, b, c, d, o, g} n(M∪N) = 6	Accuracy Effective communication Accuracy Crritical thinking	Explanation Guided discovery Question and answer Gallery walk	Forming union sets Finding number of members in union sets	Mk Maths Book4 pages 6 and 13 Understanding Maths book 4 page 9 Chalk board illustration	
	3				-describes difference of sets	-writes members of set only Reads the given set	Difference of sets Members that appear in one set but not in another set Example F = { a, b, c, d)	Accuracy Effective communioc ation	Explanation Guided discovery	Finding difference of sets	Mk Maths Book 6 page 12	

					-identifies complement of sets		H = { b, d, f, g, h} i) F – H = { a,c} ii) H –F = { f, g, h} complement set: A set of members outside a given set example K = { b,o, y} L' = { b, o, x} Find the a) Complement of L ' {y} b) Complement of k K' = {x}	Accuracy Critical thinking Taking a decision Appreciation	Question and answer Think, pair and share	Complement of sets	Chalk board illustration	
	4			Types of sets	-describes sub sets -defines subsets -lists down subsets	-writes down subsets -forms subsets by listing them down -writes the set set symbols	Subset is a nother set obtained from any given set The given set and an empty set are also subsets of very set Finding subsets of the very set Finding subsets by listing Example Given set M = { a, b, c}	Accuracy Effective communication Accuracy Critical thinking Audibility	Explanation Guided discovery Question and answer	Mk Math book 6 page 16 Chalk board illustration		

							List all subsets in set M Subsets: {a,b,c}, { }, {a}, {b,c} = 8 subsets Symbol for subsets c	Appreciation				
	5				-describes sub sets -defines subsets -lists down subsets Uses the formula 2^n	-writes down subsets -forms subsets by listing them down -writes the set set symbols	Finding subsets using formula 2^n Example 1. Set M = (a, b, c) find the number of subsets in a set M $2^n = 2^3$ = 2 x 2 x 2 4x 2 = 8 subsets	Accuracy Effective communication Accuracy Critical thinking Dare Love Responsibility	Explanation Guided discovery Question and answer Market stall	Finding number of subsets	Essential Primary school Mathematical Book 5 page 10 Chalk board illustrations	
	6			Venn diagrams	-Shades regions in given sets -Identifies shaded region	-reads the shaded region -writes the sets using symbols	Shading given regions of sets Example Shade i) A ∩B A B 	Accuracy Effective communication Accuracy	Explanation Guided discovery	Shading regions in given sets	Mk Maths Book 6 page and cold	



					-Names shaded region		A –B A B Identifying and naming shaded regions Name the shaded region  MCN,Nnm	Critical thinking Making a choice	Question and answer Think, pair and share	Naming shaded regions	editio n A chart showi ng shade d editio n	
	7				-uses Venn diagrams to find given sets -writes the members -counts the number of members	-reads the shaded region -writes the sets using symbols	Using Venn diagrams to find given sets  Find a) P∩Q = { 0, 2} ii) n(P∪Q) = 2 b) P∪Q = { 0,1,2,3,4,5,6} ii) n(P∪Q) = 7 c)P –Q {4,6} d) Q – P {1,3,5} n(P-Q) = 2 n(Q-P)= 3 If A=(1,2,3,4)	Accuracy Effective communica tion Accuracy Critical thinking Appreciatio n	Explanati on Guided discover y Question and answer Jigsaw	Finding given sets from Venn diagra m	Mk Maths Book4 page 14 and 15 A chart showi ng sets on a Venn diagra m	

							B=(3,4) Represent the information on a venn diagram below 					
3	1				-lists down members -counts the members	-represents set in a venn diagram -uses venn diagrams to answer questions correctly -finds the number of members in a given set -counts the members	Reprenting sets in a Venn diagram Example Set X = { 9, 2, 4, 6, 8} Y = { 4, 3, 5, 7, 9} a) Represent the two sets in the Venn diagram 	Accuracy Effective communication Critical thinking Taking a decision Appreciation	Explanation Guided discovery Think, pair and share	Representing information in a Venn diagram Answering questions using Venn diagrams	MK Maths Book 5 page 12 Chalk board illustration	
Learning outcome: The learner appreciates the need of counting in everyday life and works with whole numbers up to 99,999												

	2 and 3	Numeration system and place Values		Place value up to 5 digits Values of digits in given number	-counts all number names up to 99,999 -writes the place values -writes the number in expanded form	-Describes a number and a numeral - Differentiates a number from a numeral -Describes a place value -Gives place values of digit in numbers -Identifies place values of digits in given numbers	Number: is an idea of quantity Numeral: Is a symbol for a number 4 is a symbol for four Place valaue: Is a position of a particular digit in a number Place value: is a position of a particular digit in a number place value cha rt Thousadn units Example Give the place value of each digit in 4563 4 5 63 One – 1 – 10^0 Tens – 10 – 10^1 Hundreds – 100 – 10^2 Thousands – 100 - 10^3	Accuracy Effective communication Critical thinking Appreciation Accuracy Effective communication Accuracy Critical thinking Audibility Care	Explanation Guided discovery Island hop Explanation Guided discovery Question and answer Gallery walk	Answering questions using Venn diagrams Forming numbers using digits	MK Maths Book 5 page 12 Chalk board illustration	

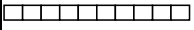
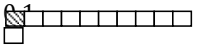
	Hth	Tth	Th	H	T	O
	100000	10000	1000	100	10	1

						-Works out the values of given numbers	Values of digits in numbers Value is how big a number is Value is the product of a number and its place value Example Find the value of each digit in H TO (6hund)+(3tens)+(2 ones) 6 x 100 3 x 10 + 2 x 1) 600 30 2 H T O 6 3 2 Ones = 2 x 1 = 2 10 = 3 x 10 100 = 6 x 100 = 600					

	4			Forming of numbers from given digits	-writes numbers -reads numbers	-Forms numbers using digit -identifies smaller and bigger numbers	Forming numbers from given digitd Write down all possible numbers formed using 3, 7, 5 753, 735, 773, 375, 357 b) 6, 8, 4, 9 9, 864, 94486 9648, 6849, 6489, 6984 c) 9,0,8,6	Accuracy Effective communication Accuracy Critical thinking Appreciation Responsibility	Explanation Guided discovery Question and answer	Forming numbers using digits		
	5			Writing figures in words	-writes the number in words -reads the number	-Writing figures in words -identifies place values	Writing figures in words examplewrite 2841 in words thou units 2 000 + 841 2 841 Two thousand eight hundred forty one	accuracy effective communication critical thining making a choice	Explanation Guided discovery Question and answer Think, pair and share	Writing figures in words	Mk Maths book 4 page 20 A chart showing place value	

								taking a decision			Chalk board illustrations	
	6			Writing figures in words	-reads the statement -writes numbers in short	-Read and interpret statements -Write words in figures	Writing words in figures Example 1. Write twelve thousand eight hundred thirty one in figures 12 thousand 12000 8 hundred 800 3 tens 30 1 ones + 1 12831	Accuracy Effective comunication Accuracy Critical thinking	Explanation Guided discovery Question and answer	Writing figures in words	Mk Maths Book 4 page 23 A chart showing place value Chalk board illustrations	
	7			Expanded form	-Writes in expanded form using powers of 10 -reads the number expanded	-Identifies place values of each digit in a number	Expanding numbers using values Example Expand 7432 using place values Th H T O 7 4 3 4	Accuracy Effective communication	Explanation Guided discovery	Writing figures in words	Mk Maths Book 4 page 24	

						-Expands given numbers using place values	(7 x 1000) +) 4 x 100) + (3 x 10) + (2 x 1) $7^3\ 4^2\ 3^1\ 2^0 = (7x10^3) + (4 x 10^2) + (3x 10^1) + (2 x 10^0)$ TH H T O 7432 = (7000+400+30+2)sw Note: sum, product, difference, quotient of values and P.V of the given digits		Question and answer		Understanding Mathematics Bk 4 page 20 Chalk board illustration	
4	1				-writes in short -reads the number	-Writes expanded numbers as single numbers / short form by adding values	Writing from expanded form to a single number Example Write 9000+ 900 + 20 + 6 in short form 9000 900 20 + 6 9926	Accuracy Effective communication Critical thinking	Explanation Guided discovery Question and answer	Writing in expanded form	Mk Math Book 5 page 32 Flash cards Chalk board illustrations	
Rounding off to the nearest tens, hundreds and thousands												
	2				-writes numbers to the nearest tens,	-round off whole numbers to the nearest	Rounding off whole numbers Example	Accuracy	Explanation	Writing in expanded form	Mk Math Book 5	

					hundreds and thousands	1000 and 1000 using number line	Roung off 27 to the nearest tens.  27 is nearer to 30 27 ≃ 30	Effective communication Critical thinking Audibility	Guided discovery Question and answer Think, pair and share		page 32 Flash cards Chalk board illustrations	
	3			Decimals	-writes decimal name -reads the decimal as fractions	-Describes decimals Changes fractions to decimals by demonstrating	Decimals: Decimals are parts of a whole and they are developed from fractions 1 whole  Decimals 1. one part makes $^{1}/_{10}$ = 0.1  Three parts makes $^{3}/_{10}$ = 0.3	Accuracy Effective communication Accuracy Critical thinking	Explanation Guided discovery Question and answer	Writing fractions as decimals	Mk Maths Book 4 Chalk board illustration	
	4				-writes decimals as fractions	-Find place values of decimals	Place values of decimals Place value chart Examples	Accuracy Effective communication	Explanation	Finding values of decimals	Mk Math book 4	

					0-reads decimals fractions	-changes decimals to fractions	Give the place value of each digit in: 14. 5 └Tenths ($^1/_{10}$) Ones (1) Tens (10)	Accuracy Critical thinking	Guided discovery Discovery Question and answer		page 29 Chalk board illustration	
	5				-Finds values of decimals	Writes the values of each in expanded form	Values of decimals Example Write the value of each digit in 33.3 TOThs 33.3 $^1/_{10}$ = 3 x $^1/_{10}$ = 0.3 1 = 3 x 1 = 3 10 = 3 x 10 = 30	Accuracy Effective communication Accuracy Critical thinking Audibility	Explanation Guided discovery Question and answer	Finding values of decimals	Mk Math book 4 page 29 Chalk board illustration	
	6				-reads decimals	-Write decimal in words -changes decimals to fractions	Writing decimal in words Example write in words 1) 0.7 0.7 = $^7/_{10}$ Seven tenths 2) 4. 6	Communication Accuracy Critical thinking	Guided discovery Question and answer			

							4.6 = 4 $^{6}/_{10}$	Audibility					
	7	Operation on numbers			-writes decimals in figure -reads decimals	-Writing decimal number from words to figures	Writing decimal number from words to figures Examples Write in figures 1) Two tenth= $^{2}/_{10}$ = 0.2 2) six and seven tenths 6 + $^{7}/_{10}$ SW 6 + 0.7 6.0 = 6.7 6.0 <u>0.7</u> <u>6.7</u>	Accuracy Effective communication Accuracy Critical thinking Care Love Making a choice	Explanation Guided discovery Discovery Question and answer Thinking, pair and share	Writing decimals in figures	MK math book 4 page 26 Understanding Maths Book 4 page 27 and 30 Chalk board illustration	
					Reads and writes decimals	Arranges decimals Oders decimals	Odering and comparig decimals 1. Arrange 0.2, 0.5, 0.3, 0.7 in ascending order. 2. Compare 0.6 —— 0.3	Accuracy Effective communication	Explanation Guided discovery	Ordering decimal S Comparing decimals	Und. mtc P4 Pg28		

5	1				-writes whole numbers and fractions. -reads them separately	-Arranges whole numbers and decimals correctly Writes mixed fractions as decimals.	Changing mixed fractions to decimals Examples Change to decimals 1) 2 $^{1}/_{10}$ = 2 + $^{1}/_{10}$ SW 2.0 + 1.1 2.1 = 2.1 2) 23 $^{5}/_{10}$ = 23 + $^{5}/_{10}$ = 23 +0.5 = 23.5 SW 23.0 + 0.5 23.5	Accuracy Effective communication Critical thinking Taking a decision	Explanation guided discovery Discovery Think pair and share	Writing mixed fractions as decimals	Mk maths book 4 page 27 Chalk board Illustrations	
	2			Roman Numerals	-writes roman numerals up to 300 -reads roman numerals	-Names basic Roman Numerals -Writes Roman Numerals got by repeating I X and C	Basic roman numerals Roman numerals got by repeating I X and C 2 = I + I = II 20 = 10 + 10 = Xx 200 = 100 + 100 = CC 3 = I + I + I = III 30 = 10 + 10 + 10 = XXX 300 = 100 + 100 + 100 = CCC Write	Accuracy Effective communication Critical thinking Aaudibility	Explanation Guided discovery Question and answer	Writing Roman numerals got by repeating I, X and C	Mk Math book 4 page Understanding Maths Book 4	

							25 = 20 + 5 = XX + V = XXV 53 = 50 + 3 L + III = LIII				page 28 A chart showing Roman numerals Chalk board illustrations	
	3			Roman numerals	-Writes Roman numerals by adding or subtracting	-Writes Roman numerals by adding or subtracting	Roman numerals got by addition or subtraction By adding 6 = 5 + 1 = VI 7 = 5 + 2 = Vii 60= 50 + 10= LX By subtracting 4 = 5 – 1 IV 40 = 50 -10 = XL	Accuracy Effective communication Critical thinking	Explanation Guided discovery Discovery	Writing Roman numerals by adding or subtracting	Mk Maths Book 4 page 33 Chalk board illustration	
The learner solves mathematical problems with competences and confidence using the four operations.												
	4			Addition of number	-adds and expresses	-Identifies symbols used in	Symbols used to carry out mathematical operations	Accuracy	Explanation	Observing	MK Math book	

				s up to ten thousand	the term for addition -reads the sum	carrying out Mathematical operations -Carries out addition of numbers up to ten thousand without regrouping	{ +, -, x, ÷ of) Addition of numbers without regrouping Example Adding 7464 + 4425 = 7425 + 4425 11889	Effective communication Accuracy Critical thinking	Guided discovery Question	symbols Relating symbols Adding numbers	4 page 50 Understanding Maths book 4 page 32-33 Chalk board illustrations	
	5			Addition of numbers involving regrouping	-reads the numbers -writes the number	-Adds numbers up to ten thousand involving regrouping	Addition of numbers involving regrouping Example Add 1489 + 2651 s/w 111 14389 14389 + 2651 + 2651 17040 17040	Accuracy Effective communication Accuracy Critical thinking	Explanation Guided discovery think, pair and share	Adding numbers	Mk Maths book 4 page 38 - 39	

				Addition of numbers in words	-reads the statements -writes the stamen	-adds and interprets statements	Adding word problems Example Alice carries 349 books and her brother Andrew carried 576 books. How many books were carried altogether? 349 books + 578 books 927 books	Accuracy Effective communication Accuracy Critical thinking Audibility	Explanation Guided discovery Question and answer	Reading and writing statements	Mk Maths book 4 page 40 - 41	
	7			Subtraction of numbers up to ten thousand	-writes the number	-Subtracts numbers without regrouping	Subtraction of numbers Examples Simplify 45 – 21 = 24 ii) 530 – 254 = 176	Accuracy Effective communication Accuracy Critical thinking Responsibility Care	Explanation Guided discovery Question and answer	Subtracting numbers	Mk Maths book 4 page 42-43 Understanding Maths book 4 Chalk board	

											illustrations	
6	1			Subtracting numbers in word problem	-expresses subtraction suing :- "subtract" 'take away" "minus"	-Reads and interprets statement -Subtracts correctly	Subtraction of numbers in word problems Example In a school, there are 1256 pupils. 578 are girls	Accuracy Effective communication Accuracy Critical thinking Respect	Explanation Guided discovery Question and answer Think, pair and share	Carry out subtraction	Mk Math book 4 page 45 Understanding Math book 4 page 36-37 Chalk board illustration	
	2			Multiplication of whole	-identifies the number and ass 0 (zero)	-Multiplies numbers by multiples of 10	Multiplying by multiples of ten Example Simplify p.o.w	Accuracy Effective communication	Explanation	Identifies multiples of 10	Mk Math book 4	

				numbers	-writes the answer correctly	-multiplies a two digit numeral by 10, 100, 1000	30 x 90 300 30 x 90 x 9 2700 2700	Accuracy Critical thinking Appreciation Co-operation	Guided discovery Question and answer Thin, pair and share	Multiplies by multiples of 10	page 46 Understanding Math Book 4 page 36 – 37 45 – 46 Chalk board illustration	
	3				Multiplies three digits by one digit		Multiplying by multiples of ten Example Simplify 148 X 4 592 p.o.w 1 4 8	Accuracy Effective communication Accuracy Critical thinking	Explanation Guided discovery Question and answer	Multiplying whole numbers	Mk Math Book 4 page 46 Understanding	

							0 1 3 0 4 6 2 4 5 9 2	Sharing Care Leadership	Think, pair and share		Math Book Page 45-46 Chalk board illustration	
	4				-recites tables -using multiplication terms e.g multiplied by 3 equals 6 Carries out multiplication of two digits by two digits	-Recognizes the correct place values	Multiplying two digits by two digits 122 X 111 _____ Example Simplify 1) 24 x 13 sw = 312 24 x 13 172 + 2 40 312 Or	Accuracy Effective communication Accuracy Effective communication Accuracy Critical thinking	Explanation Guided discovery Explanation Guided discovery Question and answer	Multiplying whole number	Mk Math book 4 page 46 Understanding Math Book 4 page 36 – 37 45-46	
	5				-reads problems and makes up others	-Carries out long division	Division with remainders Examples work out 1) 20 ÷6 = $3\ ^{2}/_{6}$	Accuracy	Explanation	Dividing whole numbers	Mk Math book 4	

						without remainders -multiplies subtracts numbers	3 W D 6 ⟌ 20 18 2 R Division of whole numbers by 100 and 1000 4500 ÷ 100 4500 100 45	Effective communication Accuracy Critical thinking Appreciation Audibility Care	Guided discovery Question and answer		page 53 Understanding Math book page 49 - 52 Bottle tops Chalk board illustration	
	6				-solves problems both orally and in writing	Carries out division of whole numbers by 10 -uses the two methods	Division of whole numbers by 10 Example Simplify i) 50 ÷ 10 05 = 5 10 ⟌ 50 0x 10 = 0 50 5 x 10 = 50 Or 50÷ 10	Accuracy Effective communication Accuracy Critical thinking	Explanation Guided discovery	Dividing by 10using simplifying and long division	Mk Math book 4 page 54 Chalk board illustration	

						-long division -simplifying	50 5 10 1 =5		Question and answer			
	7				-follow for multiply and subtraction	-Relates division and multiplication of ten -Multiplies and divides by ten	Relationship between multiplication and division of ten Examples 15 x 10 = 150 So 150÷10 = 15 2. 29 x 10 = 2900 So 290 ÷ 10 = 29	Accuracy Effective communication Accuracy Critical thinking	Explanation Guided discovery Question and answer	Relating multiplication and division by 10	Mk Math book 4 Chalk board illustration	
7	1				-follow for multiply and subtraction	-Read and interpret statements -Carries out division in word problems	Division in word problems Eample There are 120 oranges in 2 bags.. How many oranges are in each bag? 060 2 120 0x 2 = 0 12 6x 12 = 12	Accuracy Effective communication Accuracy Critical thinking	Explanation Guided discovery Question and answer	Reading and writing statements Dividing in word problem	Mk Maths book 4 page 54 Chalk board illustration	

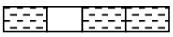
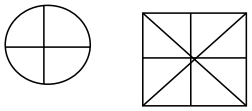
							0x 2 = 0 Each bag has 60 oranges	Responsibility				
	2	Numbers		Divisibility tests	-recites multiplication tables for 2, 3, and 10	-Carries out divisibility tests for 2, 5, and 10 Reads statements Writes notes E.g 0, 2, 4, 6, ------	Divisibility tests for 2, 5, and 10 A number is divisible by 2 if its last digit is an even number A number is divisible by 5 if its last digit is 0 or 5 e.g 5, 10, 35 A number is divisible by 10 if its last digit is 0 e.g 10, 20, 30, 40, 90, 60,	Accuracy Effective communication Accuracy Critical thinking	Explanation Guided discovery Question and answer	Listing numbers Identifying numbers	Mk Math book 4 page 58 – 60 Chalk board illustration `	
Learning out comes : The learner recognizes and forms patterns and sequences using shapes and colours.												
		PATTERNAND		Multiples	-recites the multiples of given factors -Finds the lowest common multiple by listing	-Describes a multiple Lists multiples of given factors Recites table	A multiple is a number obtained as a product of a number and any other whole number Multiples of 2 M2 = { 2 x 1}, { 2 x 2}, { 2 x 3}, {2 x 4} M_2 = { 2, 4, 6, 8,10 ----}	Accuracy Effective communication Accuracy Critical thinking	Explanation Guided discovery	Describes a multiple Listing multiples	Mk Math book 4 page 68 Chalk board	

		SEQUENCE			-Recites tables		Lowest common multiple (LCM Example Find the L.C.M of 2 and 3 M_2 (x1) , (2 x 2),(2x 3) (2 x 4) M2 = { 2, 4, 6, 8, 10, 12} Common multiples {6, 12} LCM = 6	Appreciation Empathy	Question and answer Think, pair and share	Reciting tables	illustration	
	3			Factors	-Recites tables -writes the required number of tables	-Describes a factor -Finds out and determines a factor of a given multiple	Factor: is a number that Example List all factors of 15 F 15 = 1x 15 3 x 5 F15 = { 1, 3, 5, 15} 2) Write the factors of 18 F_{18} = 1 x 1 8 2x 9 3x 6 F $_{18}$ ={ 1,2,3 , 6, 9, 18}	Accuracy Effective communication Accuracy Critical thinking Respect Care	Explanation Guided discovery Question and answer Market stall	Listing factors of given multiples Reciting tables	Mk Math Book 4 page 69 Chalk board illustration	

	4				-writes common factors -writes H.C.F /G.C.F	-Finds common factors -identifies common factors	Highest common factor Example Find the H.C. F of 8 and 12 F_8 = 1 x 8 2 x 4 2 x 6 F_8 { 1, 2, 4, 8} F12 { 1, 2, 3, 4, 6} c) HCF/GCF = 4 c) L.C.F = 1	Accuracy Effective communication Accuracy Critical thinking	Explanation Guided discovery Question and answer	Listing factors Finding common factors Identifying H.C.F	Mk Maths book 4 page Understanding math book 4 page 73-74	
	5			Types of numbers	-writes the types of numbers. -read the statement	-Names and describes types of numbers -Gives examples of types of numbers	Types of numbers Whole numbers Numbers that begin with 0 e.g 0, 1,2 3, 4, 5, _____ 2. Counting / natural numbers Numbers that begin with 1 e.g 1, 2,3, 4, 5, ------ 3. Prime numbers Numbers that have only 2 factors 2,3,5,7	Accuracy Effective communication Accuracy Critical thinking Responsibility Respect	Explanation Guided discovery Question and answer Think, pair and share	Naming and describing types of numbers Writing types of numbers by explaining	Mk Math book 4 page 58 – 60 Understanding Mathematics book 4 page	

							4. Odd numbers e.g { 1, 3, 5, 7, 9, ……..}				90 - 91 Chalk board illustration	
	6				- Differentiates between odd and even numbers -Gives examples of odd and even numbers	- Differentiates between odd and even numbers -Gives examples of odd and even numbers	Even numbers: Numbers that are exactly divisible by 2 2, 4, 6, 8, 10, ----- -sum -product -differenece -quotient	Accuracy Effective communication Accuracy Critical thinking	Explanation Guided discovery Question and answer	Listing even and odd numbers	Mk Maths book 4page 60 Understanding Maths book 4page 92	
	7			Magic square	-Adds numbers to find the magic sum -Completes the given magic square	-Adds numbers to find the magic sum -Completes the given magic square	Magic square Example Using the magic square below, find the Magic square sum Value of a,b, c and d a)Magic square sum: 9 a 7 b 6 d 5 c 3	Accuracy Effective communication Accuracy Critical thinking	Explanation Guided discovery	Adding numbers Completing magic square	A chart showing magic squares Mk Math	

					-form the equation -solves the equation -solves the equation	-form the equation -solves the equation -solves the equation	Note;The sum at the centre Value of a, b, c and d a)magic sum 9 + 6 + 3 = 18	Appreciation Togetherness	Question and answer Island hop		book 3 Chalk board illustrations	
8	1				-identifies magic sum -reads the equation	-identifies magic sum -reads the equation	Value of a: A + 7 + 9 = 18 A + 16 = 18 A = 18 -16 A = 2 C + 2 + 6 = 18 C + 8 = 18 C + 8 -8 = 18 -8 C = 20 B + 9 + 5 = 18 B + 14 = 18 B + 14 – 14 = 18 -14 B = 4 D + 4 + 6 = 18 D + 10 = 18 D + 10 -10 = 18 – 10 D = 8	Accuracy Effective communication Accuracy Critical thinking	Explanation Guided discovery Question and answer			

	2	Fractions		Definition Shading of fractions Naming fractions	-write fraction names -read and spell new words	Describes a fraction Draws fractions Names fractions	Fraction: a fraction is a part of a whole Drawing and shading fractions ½  ¾  Naming shaded fractions  ¼	Accuracy Effective communication Accuracy Critical thinking Care Taaking a decision	Explanation Guided discovery Question and answer	Reading Drawing and shading Naming fractions	Real objects Flash cards Mk Math book 4 page 80 Primary mathematics bk 5 by Macmillan page 85	
	3			Writing fractions and figures	Reads fractions	-identifies shaded fraction -names fractions	Writing fractions in words ½ = half $^1/_3$ = a third $^2/_3$ = two thirds	Effective communication Respect	Explanation	Reading fractions	MK Math book4 page 80	

					Writes fractions in words Writes fractions in figures			Love Critical thinking	Guided discovery Question and answer	Writing fractions in words and figures	Chalk board illustrations	
	4			Types of fractions	-read new words	Names types of fractions Reads types of fractions Writes types of fractions	Types of fractions Unitary fractions: Have their numerators a s 1 e.g ½, $^{1}/_{5}$, $^{1}/_{11}$ --- Proper fractions: Have the numerators less than the denominators e.g $^{2}/_{3}$, $^{4}/_{9}$, $^{6}/_{13}$ Improper fractions e.g 17/10, 3/2, 4/1 mixed fractions $3\frac{1}{2}$, $4\frac{1}{4}$, $7\frac{4}{9}$	Accuracy Effective communication Accuracy Critical thinking	Explanation Guided discovery Question and answer Think pair and share	Naming fractions Writing fractions Reading fractions Giving examples of each type of fractions		

										Writing notes about fractions		
	5			Improper fractions	-reads new words -writes new words	Reads statements Changes improper fractions to mixed fractions	Changing improper fractions to mixed fractions Example Change 5/2 to mixed fraction Divide the numerator by the denominator. 5/2 = 2 x 2 = 2w 2D 5 - 4 1N 2½	Accuracy Effective communication Accuracy Critical thinking Audibility Responsibility	Explanation Guided discovery Question and answer Think, pair and share	Reading statements Writing improper fractions as mixed fractions	Mk Maths book 4 pae 92 Understanding Maths book 4 page 54 Chalk board illustrations	
	6			Mixed fractions	Expresses mixed fractions as improper fractions		Changing mixed fractions to improper fractions Use (D x W) + N D	Accuracy Effective communication	Explanation	Expressing mixed fractions as	Mk Math book 4	

							Example Express as an improper fraction 1½ = D x W + N D (2 x 1) + 1 2 2 + 1 2 3 2	Accuracy Critical thinking Responsibility Care	Guided discovery Question and answer Gallery walk	improper fractions	page 91 Understanding Maths Book 4 page 59 – 60 Chalk board illustration	
	7			Equivalent fractions	-reads and writes fraction	Finds equivalent fractions of given fractions by multiplying	Equivalent fractions Find equivalent fractions for $^1/_3$ 1/3 = 1 x 2 = 3 3 x 2= 9 1= 2 = 3 3 6 9	Accuracy Effective communication Accuracy Critical thinking	Explanation Guided discovery Question and answer	Multiplying Finding equivalent fractions	Mk Math book4 page 80 Chalk board illustration	

9	1				-reads and writes missing fraction	Identifies the missing part Finds the factor used Applies the factor to find the missing part	Finding the missing parts of the fractions Finds the missing part in ½ = 3/6 6÷ 2 = 3 1x 3 = 3 2 x 2 6 2) 3/5 = 12/10 12÷3 =4 3 x 4 = 12 5 x 4 20	Accuracy Effective communication Accuracy Critical thinking Audibility Making a choice	Explanation Guided discovery Question and answer	Demonstration Observation Explanation Discussion Question and answer	Essential book 5 page 43 Mk Math book 4 page 82 Chalk board illustrations	
	2			Reducing fractions	-reads and writes words	Finds the highest common factor Reduces the given fractions to lowest terms	Lowest term: writing fraction in the lowest term is when a fraction has the numerator and the denominator a common factor as 1 Examples Reduce $^4/_{12}$ to the lowest terms 4/4 = 4/4 ÷ 4 HCF = 4	Accuracy Effective communication Accuracy Critical thinking	Explanation Guided discovery Question and answer	Reducing fractions in the lowest terms	Mk Maths book 4 page 84 Chalk board illustrations	

						Carries out division to get the lowest fraction	12 12 ÷ 4 = $^{1}/_{3}$	Respect				
	3			Comparing fractions	-reads and writes words	Names symbols used in comparison of fractions Differentiates symbols used to compare fractions	Comparing fractions Symbols used to compare fractions Greater than >\ Less than < Equal to = Example Which is greater $^{5}/_{8}$ or ¾? Example Which is greater 5/8 or ¾? LCM of 8 2 | 8 | 4 2 | 4 | 2 2 | 2 | 1 | 1 | 1	Accuracy Effective communication Accuracy Critical thinking	Explanation Guided discovery Question and answer Think, pair and share	Naming symbols used in comparing fractions Applying symbols correctly	Understanding mathematics book 4 page 66-67 Mk Maths book 4 page 86 Chalk board illustrations	

	4			Ordering fraction	-identifies the meaning of descending and ascending order	- pronounces the given words correctly	Arrange 1/8, 4/8, 3/8, 6/8 in ascending order	Patience Accuracy	- illustration - demonstration	- drawing diagrams	Chalk board illustrations	
	5			Addition of fractions with same denominations	-writes new words -read new words	-Reads fractions -Adds fractions with the same denominations	Addition of fractions with the same denominators Example Simplify: $\frac{1}{3} + \frac{1}{3} = \frac{1+1}{3}$ $\frac{2}{3}$ 2) $\frac{4}{9} + \frac{1}{9} = \frac{4+1}{9}$ $\frac{5}{9}$	Accuracy Effective communication Accuracy Critical thinking	Demonstration Observation Explanation	Adding fractions with the same denominators	Essential book 5 page 44 k math book 4 page 86 Chalk board illustration	
	6				-reads fractions -writes new words	Addition of fractions with different denomitors	Addition of fractions with different fractions Example $\frac{1}{2}^{x3} + \frac{1}{3}^{x2}$	Accuracy Effective communication	Demonstration Observation	Finding the lowest common	MK Math book 4 page 94	

						Adds fractions with different denominators	$\frac{1x3 + 1x2}{6}$ LCM $\frac{3+2}{6}$ 2|2|3 3|1|3 $\frac{5}{6}$ 1|1 2x3 = 6	Accuracy Critical thinking Audibility Care	Explanation Think, pair and share	multiple Adding fractions with different denominators	Essential book 5 page 59 Chalk board illustration	
	7			Addition of mixed fractions with same denominators	-reads and writes fractions	Identifies whole numbers from fractions Adds mixed fractions with the same denominators	Addition of mixed fractions with the same denominators Example Simplify Re arrange 1. $1\ ^1/_3 + 4\ ^1/_3$ Re arrange $(1^1/_3)+(4+^1/_3)$ $=(1+4) + {}^1/_3 + {}^1/_3$	Accuracy Effective communication Accuracy Critical thinking Audibility	Demonstration Observation Explanation	Adding mixed fractions with the same denominators	Mk Math book 4 pae 93 Chalk board illustrations	
10	1					Changes mixed fractions to	Addition of mixed fractions with different denominators	Accuracy	Demonstration	Reading statements	Mk Maths book 4	

						improper fractions Finds lowest common multiple Adds mixed fractions	Example Add $2\frac{1}{4} + 1\frac{7}{8}$ $\frac{4 \times 2 + 1}{4} + \frac{8 \times 1 + 7}{8}$ $\frac{9 \times 2 + 15 \times 1}{8}$ $\frac{18 + 15}{8}$ $\frac{33}{8}$ 4 rem 1 $4\frac{1}{8}$	Effective communication Accuracy Critical thinking Responsibility Taking a decision	Observation Explanation	Adding fractions	page 88 Chalk board illustrations	