## **TOPICS IN MATHS**

THEME	TOPIC	S/TOPIC	DURATION	LEANING OUT COMES
SETS	Set concepts	<ul> <li>Types of sets</li> <li>Finite sets</li> <li>Infinite sets</li> <li>Subsets</li> <li>Venn diagrams (two events)</li> <li>Time, length and Algebra</li> <li>Probability</li> <li>Working out probability of sample events</li> <li>One coin</li> <li>Two coins</li> <li>One dice</li> <li>Two dice</li> </ul>		The learner demonstrates the knowledge of sets in real life situations.
NUMERACY	WHOLE NUMBERS	<ul> <li>Reading and writing numbers in words up to 99,999,999</li> <li>Reading and writing numbers in figures up to 99,999,999</li> <li>Roman numerals</li> <li>Reading and writing Roman numerals up to MM</li> <li>Converting Roman numerals to Hindu ,Arabic and vice versa</li> <li>Bases</li> <li>Grouping in twos</li> <li>Place values of base two digits</li> <li>Changing base two to base ten and vice versa</li> <li>Adding in Base two</li> <li>Subtracting in base two.</li> <li>Multiplication of numbers in Base two.</li> </ul>	20 periods	The learner manipulates and converts whole numbers.

Do	OPERATION ON WHOLE NUMBERS	<ul> <li>Finding place values of other digits.</li> <li>Changing from other bases to base ten and vice versa</li> <li>Finding the un known base</li> <li>Addition and subtraction on whole numbers</li> <li>Multiplying whole numbers by three digit numbers.</li> <li>Dividing whole numbers by three digit numbers</li> </ul>	25	The learner applies the basic concept and operations achieved to solve.
		<ul> <li>Properties of numbers.</li> <li>Cumulative property</li> <li>Associative property</li> <li>Distributive property</li> <li>Powers on natural numbers</li> <li>Expanding numbers using exponents</li> <li>Expressing numbers using standard forms. (Scientific notation).</li> <li>Prime factorization of numbers.</li> <li>Finding squares and square root of numbers</li> </ul>		Real life problems
	PATTERNS AND SEQUENCES	<ul> <li>Divisibility test</li> <li>For 6</li> <li>For 7</li> <li>For 8</li> <li>For 9</li> <li>For 11</li> <li>For 12</li> <li>Finding square numbers and square roots</li> <li>Finding cube numbers.</li> <li>Finding triangular numbers.</li> </ul>	11	

		<ul> <li>Identifying prime and composite numbers.</li> <li>Reading sequences and finding missing numbers</li> <li>Finding consecutive odd and even numbers</li> </ul> TERM II		
	Fractions	<ul> <li>Applying fractions in daily life</li> <li>Finding unknown fractions</li> <li>Tabs</li> <li>Remainders</li> <li>Decimal fractions</li> <li>Identifying repeating and non-repeating decimal fractions.</li> <li>Changing repeating decimals to fractions and vice versa.</li> <li>Rounding off decimals up to hundred thousandths.</li> <li>Writing decimals in scientific notation.</li> <li>Applying direct proportions in daily life</li> </ul>	16	Learner applies decimals and fractions in daily life experiences
Do	INTEGERS	<ul> <li>Applying inverse proportion in daily life</li> <li>Applying percentages in daily life</li> <li>Increase and decrease in finding percentage.</li> <li>Finding original number after percentage increase or decrease</li> <li>Finding percentage decrease or increase.</li> <li>Finding simple interest and amount.</li> <li>Finding percentage rate, principal and time</li> </ul>	10	
		<ul> <li>Applying integers in daily life</li> <li>Expressing numbers in Finite 5 and 7</li> <li>Operation of integers</li> <li>Adding numbers in finite 5 and 7 using a dial</li> </ul>	10	Learner recognizes, manipulates and applies the knowledge of integers in real life

		<ul> <li>Subtracting numbers in finite 7</li> <li>Multiplying numbers in finite 7</li> <li>Application of finite system</li> </ul>		situation.
INTERPRET ATION OF GRAPHS AND DATA	Data handling	<ul> <li>Interpreting picto graphs .</li> <li>Measures of central tendencies.</li> <li>Mode</li> <li>Range</li> <li>Median</li> <li>Modal frequency</li> <li>Mean</li> <li>Review interpretation of bar graphs</li> <li>Review interpretation of line graphs.</li> <li>Interpretation of pie- charts</li> <li>Drawing pie- charts</li> <li>Interpretation of travel.</li> <li>Drawing travel graphs</li> </ul>	19	Learner collects, organizes, records, presents and interprets simple mathematical data in various forms.
		<ul> <li>Coordination of graphs</li> <li>Identifying the X and Y axes</li> <li>Finding the coordinates of a given point.</li> <li>Plotting points on a coordinate graph.</li> <li>Plotting points and forming shapes.</li> <li>Forming equations of a given line on the graph.</li> <li>Drawing lines from the given equations.</li> <li>Finding probability.</li> <li>Tossing a coin (2 coins)</li> <li>Dice</li> </ul>		
GEOMETRY	GEOMETRIC	Perpendicular bisector of a line segment	18	The learner recognizes

CONSTRUCTIO	<ul> <li>Constructing a perpendicular at a point on a line</li> <li>Constructing a perpendicular to a line from a given point.</li> <li>Bisecting an angle using a pair of compasses.</li> <li>Constructing parallel lines.</li> <li>Identifying vertically opposite angles</li> <li>Finding co- interior and co – exterior angles in parallel lines</li> <li>Finding corresponding angles in parallel lines</li> <li>Finding alternate angles on parallel lines</li> <li>Finding alternate angles formed on parallel lines</li> <li>Recognizing the angles formed on parallel lines</li> <li>Identifying skew lines.</li> <li>Properties of regular polygons.</li> <li>Finding centres and number of lines of polygons.</li> <li>Finding exterior angles and number of sides of regular polygons.</li> <li>Finding interior and exterior angles of regular polygons.</li> <li>Finding number of sides of a regular polygon</li> </ul>	and constructs lines, angles and geometric figures.
	<ul> <li>Finding the number of angles in a triangle (Triangulation)</li> <li>Finding the right angle in a polygon</li> <li>Finding the interior angle sides</li> <li>Finding the number of sum of a polygon when given the interior angle sum.</li> <li>Construction of triangles</li> <li>when given all sides.</li> </ul>	

	<ul> <li>When given two sides and included angles</li> <li>When given two angles and included side.</li> <li>Constructing a square</li> <li>Constructing a rectangle</li> <li>Constructing a rhombus.</li> <li>Constructing a parallelogram.</li> <li>Constructing a regular polygon given side and radius.</li> <li>Constructing a regular Hexagon (with angles).</li> <li>Identifying prisms and their properties.</li> <li>Identifying pyramids and their properties.</li> <li>Forming solids from their nets.</li> </ul>	
	<ul> <li>Finding ordinary bearing.</li> <li>Finding true bearing.</li> <li>Expressing distance in a given scale.</li> <li>Drawing diagrams on scale.</li> </ul>	
Time	<ul> <li>Changing seconds to minutes and hours and vice versa</li> <li>Clock system     24hours clock system     12 hours clock system</li> <li>Finding duration</li> <li>Time tables</li> <li>Finding average speed</li> <li>Km/hr to m/sec</li> <li>m/sec to km/hr</li> </ul>	
Money	<ul><li>bills</li><li>shopping lists</li></ul>	

	<ul> <li>bill tables</li> <li>bank notes and bundles</li> <li>local and foreign currencies</li> <li>forex rates</li> <li>advertisement/ radio announcements / postage charges</li> </ul>	
Length, mass and capacity	<ul> <li>metric system</li> <li>operation on metric system</li> <li>addition and subtraction</li> <li>multiplication</li> <li>perimeter of polygons</li> <li>areas of triangles, squares, rectangles and parallelograms</li> <li>areas of shaded region</li> <li>area of rhombus, kite, trapezium</li> <li>application of Pythagoras' theorem</li> <li>circumference</li> <li>application of circumference</li> <li>perimeter of sectors of a circle</li> <li>areas of circles</li> <li>areas of parts of a circle</li> <li>area of shaded regions using parts of a circle</li> <li>application of area of a circle</li> <li>surface area of solid figures e.g. cubes, cuboids, triangular prisms</li> <li>surface area of a cylinder</li> <li>volume of cubes and cuboids</li> <li>volume of triangular prisms</li> </ul>	

	<ul> <li>volume of trapezoidal prism</li> <li>cylinders</li> <li>comparing volume</li> <li>volume and capacity of cubes and cuboids</li> <li>cylindrical tanks</li> <li>packing cuboids and tins</li> </ul>	
Algebra	<ul> <li>Algebraic expressions</li> <li>Collecting like terms</li> <li>Removing brackets</li> <li>Simplifying algebraic expressions with fractions</li> <li>Substitutions</li> <li>Expressions with powers</li> <li>Multiplication of powers</li> <li>Division of powers</li> <li>Solving equations</li> <li>Simple equations</li> <li>Equations with fractions</li> <li>Equations with brackets</li> <li>Equations with squares</li> <li>Application of algebra</li> <li>Solutions sets</li> <li>Solving inequalities</li> <li>With and without fraction</li> <li>Inequalities with 3 terms</li> <li>Inequalities with brackets</li> </ul>	

## MATHEMATICS SCHEME OF WORK - PRIMARY SEVEN TERM ONE

WK	PD	TOPIC	SUB TOPIC	CONTENT	Subject competence	Language competence	Life skills	Method	t/l aids	Activity	REF	REM.
	1	SETS	Revision on types of sets	Describing sets     Listing elements     Disjoint , empty, intersection and union set	A learner     Describes types of sets     Forms sets     Draw venn diagrams	- A learner - Describes different types of sets - Describes information on the venn diagram	Critical thinking     Creative     thinking     Effective     communication     Problem solving	- Question and answer - Discussion - Explanation	- Wall charts - Showing venn diagrams	- Answering questions - Doing exercise	- New MK MTC bk 7 pg 1-2 - Mk NCDC 1-3 - Fountain pri MTC Bk 7 pg 1-4	-
	1		Sub sets	Listing subsets     Finding number of subsets (both proper and improper	<ul> <li>A learner</li> <li>Defines a subset</li> <li>Lists the subsets</li> <li>Counts</li> <li>Solves for number of subsets</li> </ul>	- The learn defines subsets - Forms sentences using the word	- Dp	Do	-	- Forming subsets from a set	- New Mk bk 7 pg 2-4 - Mk NCDC 4-7 - Fountain mtc pg 3-6, 8-10	-
1	1		Use of venn diagrams	Interpreting two venn diagram The venn diagram shows the number of pupils who eat both apples (a) and beans (B)  A B 9 6 8  How many pupils eat beans? b) How many pupils eat apples?	Learners Identifies the different regions Names the different regions Adds Displays information on a venn diagram Finds probability of simple sets	- The learner - Names regions - Defines probability	Demonstration     Explanation     Guided     discovery	Do	- Wall charts showing diagram of two intersecting sets	- Drawing - Identifying - Naming	-	-
	1	SETS	Solving problems involving venn diagram of 2 sets	Drawing venn diagram to represent given information     Finding number of members	Drawing venn diagram     Finds number of     members in each set     Finds probability of     simple sets	- The learner reads different regions on venn diagram	- Do	Do	- Wall chart showing venn diagram	- Drawing - Identifying - Naming	- New MK pg 10-11 - NCDC 11-12	-
2	1	Whole numbers	Place values and values	- Review of previous work on place values and values - Example - 2435087 - Place values and values of underlined digits Digit place value value 5 thousands 5000 8	The learner     Identifies place values     Finds values of digits	The learner     Reads place     values     Writes place     values     Spells place     values of digits	- Guided discovery - Explanation - Discussion		Abacus - Place values charts	- Answering questions - Reading - Writing - Identifying place values	- New MK pg 28 - NCDC 13 - Understanding MTC bk 7 - Pg 18 - Fountain mtc bk 7 pg 25-28, 20-22	-

2	1	Reading and writing numerals in words	Reading given figures in words Writing given figures in words Writing from words to	The learner reads the given figures in words - Writes given figures - The learners	The learner read and writes given figures in words     The learner	- Do	Do	- Do	- Writing - Reading - Answering oral questions - Writing	- Understanding mtc pg 19 - Fountain mtc bk 7 pg 27 - mtc pg 21	-
	'	writing words in figures	figures	Write given words in figures	reads given words	- 00	Do	-00	- Answering questions Mk	- Mk NCDC 15 - Understanding mtc bk 7 pg 18	-
	1	Expanded notation	Expanding numbers using ; values, place values , powers of ten	The learner     Expands numbers     using; values, place     values, powers of ten	- The learn spellings the word expand - Describes the relationship between numbers and their values	- Guided discovery - Explanation - Discussion	Do	- Wall chart showing examples of expanded numbers	- Expanding - Answering oral questions - Identifying place values	MK bk 7 pg 49 Mk NCDC 38 - Fountain pg 36	-
		Writing expanded numbers in short form	Finding expanded numbers	The learner Writes given expanded numbers in short form	- The learners - Describes relationships between numbers and their short forms	- Do	Do	-	- Finding expanded numbers - Adding	MK bk 7 pg 49 Mk NCDC 38 Fountain pg 28	-
		Standard form / scientific notation	Writing single numbers in scientific notation Finding the single numbers for the given numbers	The learner Writes single numbers in scientific notation Finds the	- The learner - Reads and writes numbers in scientific notation	- Explanation - Discussion	Wall charts showing numbers to standard form	- Do	- Writing numbers in scientific notation	- Fountain 45 - Mk NCDC 39 - MAcm 55-59	-
3	1	Rounding off whole numbers	Rounding off to the nearest Tens Hundreds Thousands Ten thousands Hundred thousands Million	- The learner rounds off to the nearest Tens Hundreds Thousands Ten thousands Hundred thousands Million	The learner spells and uses the words Tens Hundreds Thousands Ten thousands Hundred thousands	Explanation     Question and answer     Discussion	Wall chart showing examples of rounding off whole numbers	- Do	- Adding - Re-grouping	- New mk mtc bk 7 pg 30-51 - Understanding mtc pg 26-27 - Fountain 28-30	-
	1	Roman numerals	Reading and writing roman numerals Converting hindr Arabic to roman numerals Converting roman numerals to hindu Arabic Application of roman numerals	The learner read and writes roman numerals Converts hindu Arabic to roman numerals And vise versa Adds roman numerals	- The learner - Describes roman numerals	- Do	Wall chart showing roman numerals	- Do	- Converting - Adding	- New mk bk 7 pg 23-39 - Mk NCDC 17- 19 - Fountain 19-22	-
3	1	Bases	Addition , subtraction , division and multiplication of bases Non decimal bases Finding missing bases	The leaner's adds, subtracts, divides, and multiples given bases     Finds missing bases	- The learner read and answers after adding subtracting, dividing and	- Do	Abacus Real objects	- Do	- Converting from other bases to base ten and vise versa	- Old mk bk 7 pg 38-43 - Mk NDCD 22- 30 - Fountain 30 - 42	-

	I		1			multiplying						
	1	Operation on whole	Addition and subtraction of	Adding and subtracting large	The learner     Arranges digits according	bases - The learner reads the	- Discussion - Explanation	Cooperation Critical thinking	- Chalkboard illustration	- Adding - Subtraction	- New mk bk 7	-
		numbers	large numbers	numbers upto 100,000,000	to place values - Adds - Subtracts	mathematical statement of addition and subtraction	- Question and answer	Effective communication Problem solving Creative thinking	illustration		- Mk NDCD 31	
4	1		Multiplication of large numbers	Multiplying by two digits number     Multiplying by three digit numbers	- The learner; - Multiples whole numbers whose product does not exceed 100,000,000 - Solves word problems involving multiplication	- The learner reads mathematical statement of multiplication	- Do	Do	- Chalkboard illustration	- Multiplying - Adding - Regrouping	- New mk bk 7 pg 46 - Mk NDCD 57- 58 - Fountain 46	-
	1		Division of large numbers	Dividing large numbers by the digit numbers Dividing large numbers by three digit numbers	The learner;     Divides whole numbers     Solves words problem involving division (quotient)	- The learner: - Read mathematical statements of division	- Do	Do	- Do	- Dividing - Subtraction	- New mk bk 7 pg 46 - Mk NDCD 58- 59 - Fountain 47 - NCDC 33s	-
	1		Properties of numbers	Distributive property Associative property Commutative property Given that x*y Means ty+y	- The learner - Adds - Multiples - Factorises - Groups numbers - Subtracts	- The learner - Spells and uses the words distributive, associative and commutative	Guided     discovery     Question and     answer	Do	- Read and counts	- Adding - Multiplying - Factoring - Subtracts	- New mk bk 7 pg 47 - Mk NDCD 34- 36 - Fountain 76-78 - NCDC 33s	-
			Indices	Laws of indices in multiplication Application of indices with multiplication	- The leaner - Adds - Simplifies - Factorise - Solves	- The learner - Reads and uses the words - Powers - Indices - Exponents	- Do	Do	- Chalkboard illustration	- Adding - Simplifying	- New mk bk 7 pg 51 - Mk NDCD 34- 36 - Fountain 63-64	-
5	1		Indices	Laws of indices in division Application of indices with division Squares and square roots	- The leaner; - Subtracts - Simplifies - Factorises - Solves	- Do	- Do	Do	- Do	- Subtraction - Simplifying - Factorizing	- New MK pg 51 - Mk NDCD 34- 36 - Fountain 60-66	-
	1	Patterns and sequences	Divisibility test	- Review of divisibility test for 2, 3, 4, 5 and 6 - Divisibility test for 7	The learner     Describes types of numbers     Identifies numbers divisible by 2,3,4,5,6, and 7	The learner reads the word divisibility test     Describes steps for divisibility test	- Explanation - Discussion - Question and answer	Critical thinking Creative thinking Effective communication Problem solving	- Chalkboard illustration -	- Dividing - Adding - Reading	- New MK pg 59 - Mk NDCD 34- 36 - Fountain 59 - NCDC 43-46	-
	1		Divisibility tests	Divisibility test of 8, 9, 10,and 11	The learners     Describes types of numbers     Identifies numbers divisible by 8, 9, 10, and 11	- The learners - Describes steps for divisibility tests	- Do	Do	- Do	-Do	- New MK pg 51 - Mk NDCD 34- 36 - Understating mtc 51-57 - NCDC 43-46	-

5	1		Sets of numbers	Write numbers Natural /carrying numbers Even and odd numbers Prime numbers Composite numbers Triangular numbers Cubic and cube numbers Integers Rational numbers Square number s Application of LCM and GCF	The learner     Lists types of numbers     Counts numbers     Identifies numbers and their sequence	-	The learner Spells and uses the words whole, natural, counting, even odd and prime Triangular, cube, integers and rational and square numbers	Guided discovery     Explanation     Question and answer	Do	- Wall chart showing the types of numbers	- Completing sequence - Listing	- New MK pg 64-70 - Mk NDCD 47- 53 - Fountain	-
	1		Improper and mixed fraction	Review changing improper fraction to mixed numbers and vise versa	The learner     Converts improper fractions to mixed numbers     Converts mixed numbers to improper fractions	-	The learner Changes improper fraction to mixed numbers Changes mixed numbers to improper fractions	Discussion     Explanation     Discovery	Effective communication Critical thinking Problem solving	- Counters - Fruits	- Converting improper fractions to mixed numbers and vise versa	- New MK pg 73 - Fountain 73-75 -	-
6	1		Conversation of fractions	Changing common fractions to decimals Changing decimals to common fractions	The learner     Converts common fraction to decimals     Converts decimals to common fractions	-	The learner Changes common fraction to decimals Changes decimals to common fraction	- Do	Do	- Wall chart showing conversion of fraction to decimals and vise versa	- Answering oral questions and written questions	- New MK pg88 - NCDC 81	-
	1		Recurring decimals	Rational numbers to recurring decimals Recurring decimals to rational numbers	The learner     Converts rational     numbers to recurring     decimals     Converts recurring     decimals to rational     numbers	-	The learner Spells and uses the words recurring and rational to make sentences	Explanation     Discovery     Question and     answer	Do	- Wall chart showing all working well laid out	- Converting rational numbers to recurring decimals and vice versa	- New MK pg 55 - Fountain 122- 125 - NCDC	-
	1		Ordering fractions	Arranging fraction in ascending and descending using LCM and percentage Comparing fractions using >,< and =	<ul> <li>The learner</li> <li>Arranges fractions in ascending and descending order</li> <li>Compares fractions using &gt;,&lt;, or =</li> </ul>	-	The learner Defines ascending and descending	- Discovery - Participatory learning	Do	- Paper cutouts - Fruits	- Answering oral and written questions	- Tr's collection - Fountain mtc pg 119-120	-
	1		Operation on fraction	Addition f fraction Proper fractions Mixed fractions	The learner     Adds proper fractions     and mixed fractions     Finds LCM of     denominator	-	The learner Reads regular fractions Reads word problems involving addition of fraction	Explanation     Guided     discovery     Demonstration	Do	Cut outs Fruits Chalkboard illustration	Cutting fruits Shading adding	- New MK pg 73 - Fountain 75 - Macmillan	-
	1	Fractions		Subtraction of fraction	- The learner	-	The learner	- Do	Do	-Do	- Answering	- New mk bk 7	-

7		Multiplication  Division	Proper Mixed fractions Word problem  Fractions and whole numbers Fraction by fraction Word problem  Use of LCM and	Subtracts proper fraction     Subtracts mixed fractions      The learner multiplies fractions and whole numbers     Multiplies fraction by fractions     Reduces fractions     The learners	- Reads vlgar fraction - Interpret word problem - The learner - Reads and interprets fraction involving multiplication - The learner	- Guided discovery - Explanation - Discussion	Do Do	- Do	oral and written questions  - Oral and written exercises  - Do	75-76 - New mk bk 7	-
			reciprocal Fraction by fraction Fraction by whole numbers Mixed by fractions Word problem	Uses LCM and reciprocal to divide fractions     Interpret word problem	read and interprets fractions involving division					80 - Trs' collection	
		Mixed operations	Use of BODMAS Addition and subtraction Multiplication and division 3 operations 4 operations Use of brackets	The learner     Applies BODMAS in working out problems	- The learner - Gives the meaning of BODMAS	<ul><li>Discussion</li><li>Explanation</li><li>Guided discovery</li></ul>	- Do	- Wall chart showing necessary calculations	- Do	- New Mk bk 7 pg 74 - Understanding mtc bk 7 pg 74-75	-
		Application of fraction	Direct fraction Application of remainders Taps	The learner     Applies fraction in the daily life situation     Interprets fraction involving remainders	- The learners - Uses the word remainder correctly	- Discussion - Demonstration	Logical thinking     Effective     communication	- Containers - Papers	- Solving problems involving application of fractions - Finding the remainders	- New MK pg 77-79 - Mk NDCD 82- 85 -	-
		Decimals	Place values of decimals Values of decimals	The learner     Identifies the place     values of decimals     Finds the values of digits	- The learners - Spells the place values of decimals - Pronounces the place value correctly	<ul><li>Guided discovery</li><li>Discussion</li><li>Explanation</li></ul>	Problem solving     Effective     communication     Creative thinking	- Place value - Chart showing decimals	- Identifying place values - Finding values of digits	- Understanding mtc pg 4	-
8	1	Do	Reading and writing decimals in words Reading and writing decimals from words to figures	The learner     Reads and writes     decimals in words and     figures	- The learner reads and spells the words correctly	- Do	Do	- Chalkboard illustration	- Reading and writing decimals in word and in figures	- New Mk pg 27- 29	-
9	1	Do	Expanding decimal Finding the expanded decimals  Scientific form (standard	The learner Expanding decimals using values and powers Fins the expanded Writes decimal numbers in	- The learner - Uses the words expanded and simplify - Explains what	- Do - Explanation	- Do	- Do - Number line	- Expanding and finding single numbers - Writing	- New mk pp 29 - Understanding mtc pg 38-39 - Macm pg 63-	-
	1		form) Rounding off decimals to hundred thousandths	standard from Rounds off decimals up to hundred thousandths	scientific notation is - Explains what rounding off is - Reads rounded off	- Explanation - Guided discovery	communication Problem solving	- Number life - Chalkboard illustration	numbers in standard dorm Reading rounded off numbers	- Macrif pg 63- 64 - Fountain 31-33 - New mk 32-34 - Fountain 79-80	-

		T			numbers						1
	1	Operation on decimal upto tens thousandths	addition of decimals subtraction of decimals word problem	Adds decimals     Subtracts decimals     Reads and interprets     word problems     Arranges decimals     according to place values	- Reads and adds, subtracts decimals	- Discussion - Guided discovery	Creative thinking     Problem solving	- Chart showing addition and subtraction of decimals	- Adding and subtracting decimals	- New mk 94 - Understanding mtc 40	-
	2	Multiplication of decimals by ; Whole numbers Decimals	Multiplies decimals by whole numbers and decimals Puts the correct number of decimals places	- Reads decimal multiplication	Do	- Do	- Multiplication table chart	- Multiplying - Adding - Counting	-	- New mk 83-86 - Fountain 78-79	-
			Division of decimals by Whole number s Decimals	Divides decimals by whole numbers and decimals     Maintain the correct number of decimal places	Uses the reciprocal Uses brackets properly	<ul><li>Guided discovery</li><li>Explanation</li><li>Discussion</li></ul>	Creative thinking     Problem solving	- Chart showing division of decimals	- Dividing decimals by whole numbers and by decimals	- New mk 86 - New mk 2000 pg 97	-
			Combined operation on decimals Addition and subtraction Multiplication and division Addition , subtraction, multiplication and division	Uses BODMAS to work     on decimals	Reads and uses BODMAS correctly	<ul> <li>Explanation</li> <li>Guided discovery</li> <li>Group discussion</li> </ul>	Critical thinking     Effective     communication     Problem solving	- Chalkboard illustration	- Answering oral and written exercises	- New mk 86- 89 - New mk 2000 pg 94	-
40	1	Ratios	Review on ; Forming ratios Expressing rations as Fractions Decimals Percentage	- Expresses numbers in ratio from	- Describes ratios	- Discussion - Group work	- Problem solving - Effective communication	- Do	- Forming and expressing numbers in ration from	- New mk 1000 - New mk 95-97	-
10	1		Ratio increase and decrease Finding the ratio of increase and decrease	Increase and decreases     number in given ratios     Finds the ratio of     increase or decrease	- Uses the words increase and decreases	<ul><li>Guided discovery</li><li>Problem solving</li></ul>	Creative thinking     Critical thinking     Effective     communication	- Real objects	- Reading - Adding - Subtracting - And dividing	- New mk pp 111 - New mk 97 - Fountain 83	-
	2		Sharing quantities in ratios Finding the ratio in which quantities are shared Finding the number shared in a given ratio	Shares quantities in given ratios     Finds the number shared in a given ratio	- Applies ratios in solving given numbers correctly	Guided     discovery     Explanation     Discussion	Critical thinking     Creative thinking     Problem solving	- Real objects	- Answering oral and written activities	- New mk 2000 pp 112-117 - New mk 98-99	-
		Proportion	Review direct proportion Inverse proportion	Describes direct and indirect proportion Uses proportions to solve problems	- Reads and uses the word proportion	- Do	- Do	- Chalkboard illustration	- Solving problem involving application of proportions	- New mk 114- 117 - Fountain 84 - Mk ncdc 61-64	-
		Percentages	Percentage to decimals Percentage to fraction Percentage to ratios	Change percentage to decimal, fraction, and ratios and vice versa	- Defines - Percentage	- Discussion \group work	- Effective communication - Critical thinking	- Do	- Changing from percentage to decimals	- New mk 2000 pp 121 - New mk 105-	-

	Decimals to percentage Fraction to percentage Ratios to percentage						fractions and ratios	108 - Fountain 85-87	
	Expressing quantities as percentage Finding percentage parts of quantities Application of percentage parts	Expresses as percentage Applies percentages to find parts	Uses the percentage symbol correctly     Reds and interprets questions involving	Explanation     Guided     discovery     Discussion	Creative thinking     Problem solving	- Wall clock and real objects	- Changing quantities t o the same units - Oral and written questions	- New mk 2000 ppp 122-125 - New mk pp 110-111	-
	Percentage profit Percentage loss Discount and percentage discount More about application on percentage profit and loss	Finds profit and %age cost profit Finds loss and %age loss	- Reads and uses the words profit and loss correctly	- Guided discovery - Discussion -	- Do	- Shopping bills	- Using profit and loss to get %age profit and % age loss	- Ncdc 69 - Fountain 88-89 - New mk 2000 pp 137-139	-
	Find the original cost when the %age loss or profit is given	Find original cost using %age loss or profit	Uses profit or loss to get the original cost	- Do	<ul><li>Problem solving</li><li>Critical thinking</li><li>Effective</li><li>communication</li></ul>	- Chalkboard illustration	- Answering oral and written work	- Ncdc 97 - New mk 125- 126	-
	Finding simple interest Finding principal and amount Finding rate Finding time	Reads and finds simple interest , amount , rate and time	- Defines the words simple interest, principal , amount, rate, time	- Do	- Do	- Do	- Dod	- New mk 2000 pp 150-155 - Mk ncdc 71-75 - Fountain 90-91	-
Order of integers	Opposites/inverse of integers Order of integers	Find the inverse of integers Orders integers Describes integers	- Defines integers - Inverse - Uses the word inverse to make sentences	- Discovery - Cooperation - Thinking pair share	Problem solving     Critical thinking     Effective     communication	- Mathematical rule - Numberline - Ladders - Floor	- Finding the opposites of integers - Ordering integers	- New mk 309 - Fountain 93-94	-
Addition and subtraction	Addition of integers Using a number line Without using a numberline Subtraction of integers Without using number line	Carries out addition and subtraction Uses the number lien correctly	- Describes the forward and backward movement	- Demonstration - Discussion	- Do	- Do	- Solving problems - Involving addition and subtraction	- Fountain 245 - New mk 389 - New mk 352	1
Division and multiplication	Multiplication of integers Using a numberline Without using a numberline Division of integers Using a numberline Without using a numberline	Draw number line Carries out division and multiplication	- Describes real life situation where integers are applied	- Demonstration - Explanation	- Do	- Do	- Drawing number line - Oral and written work	- Fountain - New mk	-
Application of integers	Word problems involving integers	Applies integers in our daily life situation Interprets word problem	- Reads and interprets word problems	- Discussion - Explanation	- Do	- Do	- Solving problems involving word problems	- Fountain 94-96	-

	Finite system	Addition and subtraction of in finite system Using a dial Without using a dial	Adds and subtracts numbers in finite system	- Gives the meaning of words like finite, dial and amnthmetic	-	Guided discovery Demonstration Discussion	-	Creative thinking Discovery	- Clock faces - Ladders - Charts	- Addng and subtracting using drawing dials	- Fountain 96- 101 - Macm 252-254	-
		Multiplication in finite system Division in finite system	Describes division and multiplication in finite system	- Reads and interprets in finite system	-	Do	-	Do	- Do	- Oral and written work	- Fountain 201- 105	-
		Algebra in finite system Application of finite system	Solves word problem involving clock arithmetic Applies finite system in daily life situation	- Describes the backward and forward movements during clock arithmetic (finite system)	-	Explanation Discussion Group work	-	Effective communication Critical thinking Problem solving	- Chalkboard illustration	- Solving equations involving finite system	- Fountain 105 - Macm 81-84 - Mk ncdc 84	-
Data handling	Review of graph	Bar graphs Pictor graphs Line graph Scale Using given data to draw bar and time graph Temperature graph	Interpret e the given graphs Differentiate between vertical and horizontal scales	Gives the meaning of bar, picto graph, line graph etc     Identifies vertical and horizontal scales	-	Discussion Demonstration Explanation	-	Problem solving Critical thinking Effective communication	- Mathematical sets - Manila cards - Learners	- Drawing graphs - Shading graphs	-	-
		Travel graphs Interpreting travel graphs Drawing travel graphs	Draw travel graph Interprets travel graph	- Uses the given information to interpret and	-	Do	-	Do	- Do	-Do	- Macm 115 - Fountain 119- 124 - Ncdc 97	-
	Coordinate graph	Stating coordinates of a point on agrid Plotting given points on a grid Joining points to form geometrical figure Naming and calculating area f the figure formed	Presents and interprets information on coordinate grid Form ordered pairs Name and calculates area of the formed figure Write correct units	- Reads information on coordinates grid - Describes the figure formed		Demonstration Discussion Explanation Observation	-	Effective communication Critical thinking Problem solving	Mtcal set Wall chart	- Drawing - Naming points - Plotting - Interpreting information	- Ncdc 98-99 - Macm 124 - Fountain 124- 127	-
		Lines formed by ordered pairs Completing tables	Completes tables by filling the missing integers	- Uses the given equation to complete tables	-	Do	-	Do		Drawing - Completing tables	- Macm 127-131 -	-
	Pie charts	Drawing circle graphs using fractions/degrees / %ages Finding unknown and amount shared	Draws pie chart Interprets circle graph and find unknown Present information on pie chart	Explains steps     filling when     drawing pie     chart     Reads     information on     pie chart	-	Do	-	Effective communication Creative thinking	Mtcal set Ruler Ropes	- Drawing and showing position - Finding the unknown	- Macm 118-123 - Mk ncdc 91-93	-
	Statistics	Median , mode, range, mean, average, modal frequency (measure of central tendency_	Describes what median , mode, mode, range means	- Gives and uses the given words correctly	-	Do	-	Do wall charts	Calculating the given exercises	-	- Fountain 127- 129 - Macm 133	-

Geometry / construction	Probability  Lines and angles	Tossing a coin Rolling a dice Tossing two coins Dice and a coin Measuring and constructing lines Types of angles Parallel and perpendicular lines Skew lines	Defines probability Calculates probability of numbers  Draw lines Measures lines Describes the type of angles Constructs parallel lines	Discusses the ways of finding probability of numbers     Explains parallel     Bisecting , skew, and perpendicular lines	- Guided discovery - Discussion - Explanation - Demonstration - Discovery - Discussion - Explanation	- Effective communication - Critical thinking - Creative thinking - Problem solving - Logical reasoning	Tossing Rolling  Mtcal set Boxes Classroom tables Books	- Constructing. Drawing parallel and skew lines	- Do - Macm 152 - Fountain 139 - Ncdc 107	- Do
	Angle properties	Complementary angles Supplementary angles Vertically opposite angles Exterior angles Interior angles Corresponding angles More about angles and parallel lines	Identifies eh angle properties Solves the unknown angles	- Explains supplementary angels - Complementary angles - Vertical angles - Alternate, corresponding angles - Interior and exterior angles	- Do	- Do	Do	- Solving numbers involving angle properties	- Fountain 139 - Ncdc 10	-
	Construction	Bisecting lines and angles Constructing angles e.g 60, 90, 45, 75, 22.5 etc Constructing triangles Constructing polygons, hexagon, pentagon, rhombus, squares, rectangles, parallel	Construct and bisects angles Construct simple polygon States property of regular polygons	- States properties of regular polygon	- Do	- Do	Do	- Bisecting and constructing angles	- Fountain 153 - Mk ncdc 131 - Macm 169	-
	Bearing and scale drawing	Rotation /revolution Direction faced after turning through a certain angle Angels formed on compass direction Angles formed by the minutes and hour hand of the clock	Draws the compass direction Describes clockwise and anticlockwise Finds the angles formed in the compasses direction	Uses clock     wise and     anticlock wise     Spells north ,     south, east etxc	- Demonstration - Guide discovery - Discussion	Creative thinking     Problem salving     Effective     communication	Compasses direction Clocks	- Drawing showing compass direction - Turning different direction	- Macm 226 - Fountain 158	-
		Ordinary bearing Finding the direction of one point from another Opposite direction of ordinary bearing	Describes ordinary bearing Finds the direction of one point from another Finds the opposite direction of ordinary bearing Finds the angle that	Uses ordinary     bearing to find     the direction     Describes     angles	- Do	- Do	Do	- Showing the ordinary bearing of different location - Calculating angles	- Macm 232 - Fountain 159	-
		Finding the true bearing of one point from another Opposite bearing Linear scale drawing Scale drawing Sketching drawing	Draws bearing Scale Describes direction	- Describes bearing and direction	- Demonstration - Guided discovery - Discussion	Creative thinking     Problem solving     Effective     communication	Chalkboard illustration Geometrical sets	- Drawing - Measuring	- Macm 235 - Mk ncdc 146	-

	Time	Expressing time Changing hours to minutes Changing minutes to hours and seconds Changing hours to minutes and seconds	Reads time Interprets time correctly Converts units of time	Reads time     Names units     Writes o'clock     units of time     am, pm in full	<ul><li>Guided discovery</li><li>Questions and answer</li><li>Demonstration</li></ul>	Critical thinking     Problem solving	Cutouts Wall charts	- Reading - Writing - Reciting	- Fountain 166	-
		Clock system Changing 12 hour clock system to 24 hour clock system Converting 2 4 hour clock to 12 hour clock system	Reads time, writes units , interprets clock system Add time Subtracts time	Reads time     Write am and     pm in full     Describes unit     of time	- Guided discovery - Question and answer	- Problem solving - Effective communication	Wall faces Wall charts	- Reading - Writing - Adding - Subtracting	- Fountain 167 - Mkncdc 151 - Macm 165	-
		Finding duration Finding duration of same unit time Finding duration of different units time i.e. Am and pm Finding duration involving two days	Reads time Adds time Subtract time Convert time	Reads units time     Defines units of am and pm	- Discussion - Guided discovery	- Critical thing - Problem solving	Wall clock Wall charts	- Reading - Reciting	- Macm 269 - Fountain 169	-
		Time tables School timetable Taxi and bus timetable Travel timetable Marine timetable Air timetable	Reads timetables Makes timetables Converts time Calculates duration	Reads     timetables     Describes word     departure and     arrival     Interprets     timetable	- Guided discovery demonstration	Problem solving     Effective     communication	Uses timetable Wall face Wall charts	- Reading - Drawing - Making timetables	- Fountan 169 - Macm 270	-
		Programs Radio program Television program	Listens to a radio Watches the TV Draw makes tv/radios	- Spells words radio, and television - Interprets program	<ul><li>Demonstration</li><li>Discussion</li></ul>	Critical thinking     Effective     communication	Radio Tv Flash cards	- Reading - Drawing	-	-
		Review Speed Changing km/hr to m/s Changing m/s to km/hr	Changes km/hr ot m/s Changes m/s to km/hr	Writes km/hr to m/s in full     Describes units km/hr and m/s in full	Guide discovery Discussion	Critical thinking     Problem solving	Wall chart Chalkboard illustration	- Reading - Converting	- Mk 331 - Mk ncdc bk 6 116-117	-
				TERM III		-		-	-	-
Measurement	Length Mass And capacity	Length Comparing metric units Changing meters millimeters and vice versa Changing km to m and vice versa	Reads the metric table Recites the metric table Converts to required units	- Uses with words - Kilogram - Metres - Millimeters - In sentences	Demonstration Discussion Guided discovery	Decision making     Problem solving     Critical thinking	Meters rule Tape measure Weighing scale	- Measuring - Reading - Reciting	- Fountain 172 - Macm 260	-
		Adding metric units Subtracting metric units	Adds figures Regrouping figures Subtracts figures	- Reads the given metric unit s	Question and answer Demonstration	Problem solving     Critical thinking	Wall face Metre rule	- Adding - Measuring - Subtracting	- Macm 260-261	-

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			- Describes the given metric						
	Multiplication of metric units Division of metric units	Multiplies metric units Divides metric units Regroups metric units	units - Reads the metric units - Describes the given units	Guided discovery Discussion	Decision making     Critical thinking	Chalkboard illustration Metre rule	- Multiplying - Dividing	Do	-
Money	Review Shopping bill and bill tables Currency notes Exchange rates	Multiples figures Adds Divides Simplifies	- Reads word problems - Interprets the given words - Writes and uses words - Exchange - Currency - Forex - Foreign exchange	Demonstration Explanation	- Effective communication - Decision making - Problem solving	Money Items Like books, pens etc	- Role playing - Reading	Mk old edition	-
Perimeter	Find perimeter quadrilaterals Perimeter of combined shapes Perimeter of regular polygons Number of poles in line and perimeter	Draws figures Names figures Add sides of figure	- Describes perimeter - Interprets different shapes - Writes names of the shapes	Demonstration Guided discovery	- Do	Cutouts Chalkboard illustration	- Cutting - Naming - Tracing - Drawing	Fountin 173 Mk ncdc 162	-
Circumference of a circle	Find circumference of a circle given the radius Finding the circumference of a circle given diameter	Draws circles Finds the circumference Simplifies expressions	- Describes the word circumference - Interprets the parts of a circle	Guided discovery Demonstration	Problem solving     Critical thinking	Cutouts Chalkboard illustration Basins Tins Wires String	- Drawing - Naming - Measuring	Fountain 176 Mk ncdc 167	-
Finding radius /diameter of the circle given circumference	Finding radius given circumference Find the diameter given circumference	Draws shapes Identifies missing parts	Reads word     statement     Interprets word     statements	Discussion Question and answer	- Effective communication - Problem solving	Chalkboard illustration Cutout	- Reading - Drawing - Tracing - Shading		-
Application of circumference	Finding number of revolutions Finding length of a piece of wire Finding diameter of given length of the wire	Measures object s Cut out strings Interprets word statements Solves problems	- Reads word problem - Interprets word statements - Spells words - Revolution - Circumference	Guided discovery Discussion	Problem solving     Critical thinking	Tins String Razorblade Cutouts Wires Tins	- Cutting - Drawing - Measuring	Fountain 184- 186	-
Areas	Finding area of triangles Finding missing parts given area of a triangle Word statement involving a triangle	Draws figures Interpret word statements Finds area	Describes the term area     Interprets word problem	Effective communication Problem solving	- Cutouts - Chalkboard illustration	Drawing Tracing	-	Mk ncdcn 160	-

	triangle For	aws interprets triangles rms equations lves word problem	<ul><li>Interprets statements</li><li>Read given statements</li></ul>	Guided discovery Discussion	- Problem solving - Critical thinking	Cut out Chalkboard illustration	- Drawing - Reading		-
	Rectangle List	aws figures t properties of figures ds area	Reads the names of quadrilaterals     Spells the names of quadrilateral	Guided discovery Discussion	- Problem solving Critical thinking	Cut outs Wall charts	- Drawing - Cutting - Tracing - Scriting	Mk ncdc 161 Macm 262 Fountain 186	-
	Finding area of a circle Mea	aws circles easures objects eds area of a circle	<ul><li>Interprets statements</li><li>Reads word problems</li></ul>	Guided discovery Explanation	<ul><li>Problem solving</li><li>Critical thinking</li></ul>	Wall charts	- Drawing - Cutting - Shading - Tracing	Fountain 190 Mk ncdc 134	-
	circumference unk	rms equation for known ids missing parts	<ul><li>Reads word statements</li><li>Interprets word problems</li></ul>	Discussion Questions and answer	- Do	Do	-Do	Fountain 190	-
Area of parts of a circle	Area of a quadrant Sha Area of a sector using Dra	mes parts of a circle ades parts of the circle aws parts of the circle ads area of the sector	<ul> <li>Reads and uses words semi circle, quadrant</li> <li>Sector</li> <li>Describes names of parts of a circle</li> </ul>	Guide discovery Explanation Question and answer	Critical thinking     Problem solving	Cutout Wall charts	- Naming - Drawing - Shading	Fountain 195 Mk ncdc	-
Area of combined shapes of circle	combined with Inte	aws figures erprets combined apes	Names parts of combined shapes     Interprets the given shapes	Explanation Questions and answer	Critical thinking     Problem solving	Cuts outs Chalkboard illustration	- Drawing - Cuttings - Reading	Fountain 193	-
Shaded regions involving circle	Area of shaded regions of Dra	aws shades shapes ids shaded shapes	<ul> <li>Describes shaded part</li> <li>Names the given shapes</li> <li>Interprets figures given</li> </ul>	Guided discovery Question and answer	- Effective communication - Problem solving - Critical thinking	Cutouts Wall charts	- Drawing - Shading - Painting - Cutting		-
Application of area of circle	of cards, circular sheets, etc that can be cut from a manila card , Iron sheet , metric sheet etc	erprets word problems ts objects given	Reads word problem     Interprets word statements	Demonstration Discussion	- Do	Manila cards Paper Razorblade Wall charts	- Cutting - Drawing - Shading	Mk 389	-
Finding radius or diameter of a circle given area	given area For	erprets word statements rms unknown lves for unknown parts	<ul><li>Interprets word problems</li><li>Interprets given statements</li></ul>	Guided discovery Question and answer	- Do	Do	- Do	Mk 391	-

	Finding circumference given area of a circle Total surface area	Calculating the circumference of circle given area  Finding total surface are of a cuboid Finding total surface area of a cube Finding missing side	Finds the radius Interprets word problem Calculates the circumference Draws accurate figures States the properties of each figure Finds total surface areas	Reads the word problem     Interprets word problem     Describes cuboid     Cubes     Reads and uses words	Guided discovery Explanation Discussion  Demonstration Guided discovery Explanation	- - -	Critical thinking Problem solving  Problem solving  Effective communication	Wall charts Chalkboard illustration  Boxes Papers Manila cards Metres ruler	- Reading - Drawing - Forming - equation - Cutting - Drawing - Shading	Fountain 193  Fountain 195*- 198	-
	Total surface area of a triangular prism	given total surface area of a cube  Total surface area of a triangular prism  Total surface area of a cylinder  Total surface area of a trapezium	Draws figures Makes prisms Measures sides of prisms	cuboid and cubes  - Describes the names of prisms - Interprets the written word problems	Discussion Guided discovery Explanation		Critical thinking Problem solving	Wall charts Cutouts Boxes Manilar Tins	- Cutting - Tracing - Painting	Fountain 199	-
	Volume	Volume Cuboids Cubes Triangular prism Trapezium prism Cylinder Spheres (4/3 r³)	Makes cut outs Draws figures Interprets figure Interpret figures	- Describes figures - Names figures	Question And answer Discussion	-	Problem solving Critical thinking	Cutouts Boxes Tins Charts	- Cutting - Tracing - Reading - Shading	Mk ncdc 170	-
	Packing	Packing cubes into cubiod Packing cylinders into cuboid	Draws figures States properties of figures	- Demonstration - Guided discovery - Discussion	Effective communication Critical thinking		Boxes Tins		- Packing - Cutting - Drawing		-
Weight/mass and capacity		Mass Mass is the quantity of matter in an objects Units on grams and kilograms 1kg – 10 Newton (weight) Converting kg to tonens Converting grams to kg Addition and subtraction of mass	Defines mass States the difference btn mass and weight Converts kg to quintals Kg to tonne	- Spells - Quintals - Tonne	Demonstration Discovery Discussion	_	Effective communication Problem solving Critical thinking	Bears balances Weight balances Scale Spring Balancing	- Converting - Weighting	Fountain 209 212 Mk Macm 264	-
	Collecting like terms	Collecting likes terms of different variables Collecting like term in figures Rectangles Square Pentagon Trapezium	Reads word statements Draws figures Collects like terms Simplifies like terms	Reads word statements     Interprets the given variables	Discussion Explanation	-	Problem solving Critical thinking	Chalkboard illustration	- Reading - Collecting like terms	Mk ncdc 175 Fountain 215	-
Algebra	Forming algebraic expressions	Forming algebraic expressions using words like Twice Trice Half	Forms variables Adds terms Subtracts terms	- Reads word statements - Interprets word statement	Discussion Guided discovery		Problem solving Critical thinking	Chalkboard illustration	- Reading - Forming expressions	Fountain 215 Mk bk 7 pg 427	-

	Square Double etc								
Expression involving brackets	Removing brackets in expression involving brackets	Reads expression correctly Multiplies variables Simplifies terms	-	Guided discovery Discussion	- Problem solving - Critical thinking	Wall chart	- Reading - Opening brackets - Adding - Subtracting	Mk pp 43-433 Fountain 215	-
Expression with brackets and fraction	Removing brackets with fraction variables	Do	- Do	Do	- Do	Do	- Do	Do	-
Subtraction	Substitution in algebra	Expands terms Substitution terms Adds terms Multiplies terms Simplifies	- Spells the words substitution - Interprets terms	Guided discovery Discussion Discussion	Problem solving     Critical thinking	Chalkboard illustration	- Reading - Expanding - Substitution	Mk bk 7 pp 429 Fountain 216 Mk ncdc 178- 179	-
Expression with powers	Adding and subtracting with powers Multiplying expressions with powers Dividing expression with powers	Adds expression Subtracts expressions Multiplies Divides Simplifies	- Reads expression - Describes words - Powers - Indices - Exponents	Guided discovery Discussion	Problem solving     Critical thinking	Wall chart Chalkboard illustration	- Reading - Solving	Fountain 218 Mk ncdc 181 Mk pp 752 - 456	-
Equations	Revision of simple equation Examples X+5+=13 y-3=5 3x+6=18 X²+1 = 10 3(2x+1) -2(x+4)=35	Reads equation Solves equations Simplifies equations	Describes the term equation     Simplifies equation	Describes equation Defines term Variables Coefficients Unknown	- Guided discovery - Discussion	Problem solving Critical thinking	- Wall chart - Chalkboard illustration	Mk 452 Fountain 218 Mk ncdc 181	-
	Equations involving fraction Examples $\frac{1}{2}p = 6$ $\frac{1}{3}p \frac{m+1}{3} + \frac{m}{4} = 2$	Reads equation Solves Simplifies	- Reads equation - Describes given equation	Discussion Questions and answer	- Do	Do	- Do	Fountain 221- 222 Mk ncdc 185	
	Equations involving powers Examples Q + 4 = 20 ½ p <sup>2</sup> = 8 1/3 p <sup>2</sup> = 12	Reads equation Solves equation Simplifies	- Describes terms - Powers - Indices - Exponents - Reads equation	Guided discovery Discussion	Critical thinking     Problem solving	Wall chart Chlak board illustration	- Reading - Writing	Mk 427 Fountain 224- 225 Mk ncdc 187	
Word problems in algebra	Forming and solving equation from word problems	Reads word problems Forms equations Solves equation	- Reads word problems - Describes written statements - Interprets terms like - Twice - Thrice	Discussion Demonstration	Problem solving     Effective     communication	Pens Books Oranges Mangoes Money Wall charts	- Reading - Counting - Sorting	Fountain 222- 223 Mk bk 7 346- 365 Mk ncdc 190- 191	

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			<ul><li>Less than</li><li>More than etc</li></ul>					
Inequalities	Inequalities with infinite solution sets Examples Find the solution set for x<5 Soln- X = {4,3,2,1,0,-1,}	Reads inequalities Draws a number line Finds the solution set Writes symbols of inequalities	Defines terms inequality     Solution set     Describes words     Less than greater than	Guided discovery Discussion	- Critical thinking - Problem solving	Reading Drawing Counting	- Wall chart - Books - Pens	Mk 444 Fountain 227- 229
	Inequalities with finite solution sets Example -2 <x<2 solution="" x="{-1,0,1}&lt;/td"><td>Do</td><td>- Do</td><td>Guided discovery Explanation</td><td>Problem solving     Critical thinking</td><td>Do</td><td>-Do</td><td>Mk pp 445 Mk ncdc 192- 193 Fountain 231- 232</td></x<2>	Do	- Do	Guided discovery Explanation	Problem solving     Critical thinking	Do	-Do	Mk pp 445 Mk ncdc 192- 193 Fountain 231- 232
	Solving simple inequalities Example Solve and list the solution 3x>9 3x>9 3 3 x>3	Reads inequalities Solves Lists solution set	- Reads inequalities - Uses words - Less than - Greater than - Less or equal to - Greater or equal to in sentence	Discussion Demonstration	- Problem solving - Effective communication	Do	- Do	Mk bk 7 448 Fountain 230
	Solving inequalities involving fraction Example Solve and list the solution set $2x \le 2$ 3 Solution $3 \times 2x \le 2x \le 3$ $2x \le 6$ $2x \le 6$ $2x \le 8$ $3$ $2x \le 3$	Reds inequalities Solves Simplifies Lists the solution set	- Reads inequalities - Uses words Less than Greater than Less or equal to Greater or equal to in sentences	Discussion Demonstration	- Problem solving - Effective communication	Do	- Do	Mk bk 7 448- 449 Fountain 230- 231
	Solving finite inequalities Example Solve and list the solution set 8 > 2x > 2 8 > 2x > 2 2 2 2 4 > x > 1 X={3, 2}	Solves inequalities Simplifies Lists the solution set	Reading the inequalities     Interprets symbols     Describes symbols	Guided discovery Discussion	- Critical thinking - Problem solving	Wall chart Chalkboard	- Reading - Drawing - Counting	Mk bk 7 449 Fountain 231 Mk ncdc 194

	Solving inequalities involving brackets Example Solve the inequality 2(x+1)>4 Solution 2x+2>4 2x>24 2x>6 X>3	Do	- Do	Do	- Problem solving - Effective communication	Do	- Do	Mk bk 7 449	
	Word problems involving inequalities Example The Headteacher's car can accommodate maximumly 5 people. Show this inequality Solution x≤ 5	Reads word problem Forms inequalities Forms inequalities Solves inequality Simplifies	- Reads word statements - Describes word statements - Interprets symbols	- Guided discovery Discussion	Problem solving - Critical thinking	- Pens - Bottle tops - Straws - Pencils Wall chart	Reading Drawing Counting - Solving	Mk bk 7 450- 451	