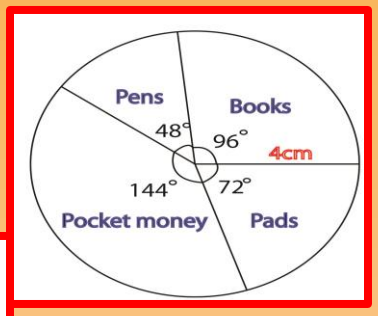
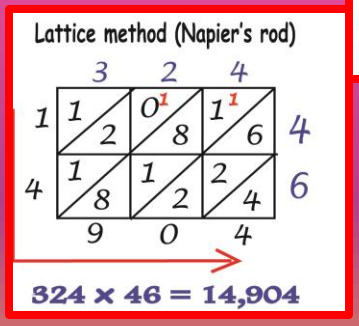
MATHEMATICS TOPIC BREAKDOWN

Primary three to Primary seven



BODMAS stands for;
Brackets
Of
Division
Multiplication
Addition
Subtraction



New Version

AMON AHEREZA

THEME	SETS
TOPIC	SET CONCEPTS
P.3	➢ *Meaning of a set* ➢ *Naming sets* ➢ *Forming sets* ➢ *Comparing sets* ➢ *Empty sets* ➢ *Finding number of members in a set* ➢ *Identifying common members in given sets* ➢ *Representing sets on Venn diagrams* ➢ *Listing elements from a Venn diagram*
P.4	➢ *Meaning of a set* ➢ *Identifying sets* ➢ *Naming sets* ➢ *Forming sets* ➢ *Finding number of members in a set* ➢ *Equal sets* ➢ *Equivalent sets* ➢ *Empty sets* ➢ *Identifying common members in given sets* ➢ *Representing sets on venn diagrams* ➢ *Listing elements from a venn diagram*
P.5	➢ *Meaning of a set and symbols used* ➢ *Types of sets* ➢ *Intersection of sets* ➢ *Union of sets* ➢ *Difference of sets* ➢ *Describing parts of a venn diagram* ➢ *Representing sets on venn diagrams* ➢ *Listing elements from a venn diagram*
P.6	➢ *Meaning of a set and symbols used* ➢ *Types of sets* ➢ *Describing parts of a venn diagram*

	➢ *Difference of sets* ➢ *Complement of sets* ➢ *Listing elements from a venn diagram* ➢ *Representing sets on venn diagrams* ➢ *Listing subsets and proper subsets* ➢ *Finding number of subsets using the formulae* ➢ *Finding number of elements when given subsets and proper subsets* ➢ *Number of elements in a venn diagram* ➢ *Solving problems using a venn diagram*[i] ➢ *Application of sets*
P.7	➢ *Finite and infinite sets* ➢ *Describing parts of a venn diagram* ➢ *Listing elements from a venn diagram* ➢ *Representing sets on venn diagrams* ➢ *Subsets* ➢ *Number of elements in a venn diagram* ➢ *Solving problems using a venn diagram*[ii] ➢ *Application of sets*
THEME	NUMERACY
TOPIC	WHOLE NUMBERS
P.3	➢ Forming numerals from digits ➢ Finding number after, before and between ➢ Place values of numbers up to thousands ➢ Values of numbers up to 9,999 ➢ Drawing bundles and sticks ➢ Showing numbers on the abacus ➢ Writing numbers from the abacus ➢ Expanded form ➢ Writing in short form ➢ Writing in words ➢ Writing in figures
P.4	➢ Forming numerals from digits ➢ Place values of numbers up to ten thousands

	➢ values of numbers up to 99,999 ➢ Expanded form ➢ Writing in short form ➢ Writing in words ➢ Writing in figures ➢ Rounding off to the nearest thousands ➢ Rounding off using a number line ➢ Writing Hindu Arabic to Roman Numerals(up to XX) ➢ Writing Roman Numerals to Hindu Arabic
P.5	➢ Forming numerals from digits ➢ Place values of numbers up to millions ➢ values of numbers up to 999,999 ➢ Expanded form ➢ Writing in short form ➢ Writing in words ➢ Writing in figures ➢ Rounding off to the nearest ten thousands ➢ Writing Hindu Arabic to Roman Numerals ➢ Writing Roman Numerals to Hindu Arabic
P.6	➢ Forming numerals from digits ➢ Place values and values of numbers up to millions ➢ Writing in words ➢ Writing in figures ➢ Expanded form ➢ Rounding off ➢ Roman numerals
P.7	➢ Forming numerals from digits ➢ Place values and values of numbers up to hundred millions ➢ Writing in words ➢ Writing in figure ➢ Expanded form ➢ Standard form ➢ Rounding off

<table>
<tr><td></td><td>

Roman numerals
<u>BASES</u>……26
Basic names of bases
Place values and values of bases
Converting from non decimal bases to decimal bases
Converting from decimal bases to non decimal bases
Converting from non decimal bases to non decimal bases
Addition of bases
Subtraction of bases
Multiplication of bases
Division of bases
Solving for unknown bases

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<tr><td>THEME</td><td>NUMERACY</td></tr>
<tr><td>TOPIC</td><td>OPERATION ON WHOLE NUMBERS</td></tr>
<tr><td>P.3</td><td>

Addition of numbers horizontally
Addition of numbers without carrying
Addition of numbers with carrying
Solving algebraic problems with addition
Addition using abacus
Simple word problems on addition
Subtraction of numbers horizontally
Subtraction of numbers without carrying
Subtraction of numbers with carrying
Solving algebraic problems with Subtraction
Subtraction using abacus
Simple word problems on Subtraction
Completing puzzles
Completing magic squares
Multiplication using repeated addition
Multiplication of numbers by 2, 3, 4, 5, 6, 7, 8, 9
Word problems on multiplication
Commutative property on multiplication
Completing puzzles
Solving algebraic problems on multiplication
Division using repeated subtraction

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	➢ Division of numbers by 2, 3, 4, 5, 6, 7, 8 with and without remainders ➢ Word problems on division ➢ Completing puzzles ➢ Solving algebraic problems on division
P.4	➢ Addition of numbers up to 5 digits ➢ Simple word problems on addition ➢ Subtraction of numbers up to 5 digits ➢ Simple word problems on subtraction ➢ Multiplication by 10, 100, 1000 ➢ Multiplication using repeated addition ➢ Multiplication by a one digit number ➢ Multiplication of multi digit numbers by multi digit numbers ➢ Simple word problems on multiplication ➢ Division using repeated subtraction ➢ Division of whole numbers with and without remainders ➢ Simple word problems on division numbers
P.5	➢ Addition of numbers up to 6 digits ➢ Simple word problems on addition ➢ Subtraction of numbers up to 6 digits ➢ Simple word problems on subtraction ➢ Multiplication by 10, 100, 1000 ➢ Multiplication using repeated addition ➢ Multiplication by a one digit number ➢ Multiplication of multi digit numbers by multi digit numbers ➢ Simple word problems on multiplication ➢ Division using repeated subtraction ➢ Division of whole numbers with and without remainders by a one digit number. ➢ Division of whole numbers with and without remainders by a two digit number ➢ Simple word problems on division numbers

	BASE FIVE ➢ Place values and values of digits in base five ➢ Showing numbers on the abacus ➢ Writing numbers in base five in words and figures ➢ Expanding numbers in base five ➢ Grouping numbers in base five ➢ Changing from base five to base ten ➢ Changing from base ten to base five ➢ Addition of numbers in base five ➢ Subtraction of numbers in base five
P.6	➢ Addition of big numbers up to millions ➢ Subtraction of big numbers up to millions ➢ Multiplication of big numbers up to millions ➢ Division of big numbers up to millions ➢ Properties of numbers
P.7	➢ Addition of big numbers up to ten millions ➢ Subtraction of big numbers to ten millions ➢ Multiplication of big numbers to ten millions ➢ Division of big numbers to ten millions ➢ Properties of numbers ➢ Laws of indices ➢ Application of indices
THEME	NUMERACY
TOPIC	PATTERNS AND SEQUENCES
P.3	➢ *Counting in twos* ➢ *Counting in threes* ➢ *Counting in fours* ➢ *Counting in fives* ➢ *Counting in sixes* ➢ *Counting in sevens* ➢ *Counting in eights* ➢ *Counting in nines* ➢ *Counting in tens* ➢ *Counting in hundreds*

	➢ *Patterns with shapes and letters*
P.4	➢ *Types of numbers* ➢ *Finding factors* ➢ *Finding GCF and LCF using factors* ➢ *Finding multiples* ➢ *Finding LCM using multiples* ➢ *Completing patterns and sequence* ➢ *Patterns and sequences of shapes*
P.5	➢ *Types of numbers* ➢ *Finding factors* ➢ *Finding GCF and LCF using factors* ➢ *Finding multiples* ➢ *Finding LCM using multiples* ➢ *Prime factorization* ➢ *Finding numbers that were prime factorized* ➢ *Finding unknown factors* ➢ *Putting prime factors in a Venn diagram* ➢ *Solving for unknowns in a Venn diagram* ➢ *Finding LCM* ➢ *Finding HCF* ➢ *Application of LCM and HCF* ➢ *Squares* ➢ *square roots* ➢ *Completing patterns and sequence* ➢ *Patterns and sequences from types of numbers*
P.6	➢ *Divisibility tests up to test of 5* ➢ *Types of numbers* ➢ *Finding sum of consecutive counting numbers using the formula* ➢ *Prime factorization* ➢ *Finding unknown factors* ➢ *LCM and HCF* ➢ *Application of LCM and HCF* ➢ *Consecutive numbers* ➢ *Squares* ➢ *square roots*
P.7	➢ *Divisibility tests*

	➢ Types of numbers ➢ Prime factorization ➢ LCM and HCF ➢ Application of LCM and HCF ➢ Consecutive numbers ➢ Squares and square roots ➢ Cube roots
THEME	NUMERACY
TOPIC	FRACTIONS
P.3	➢ Drawing and naming fractions ➢ Writing shaded and un shaded fractions ➢ Comparing fractions ➢ Ordering fractions ➢ Addition of fractions with similar denominators ➢ Subtraction of fractions with similar denominators
P.4	➢ Types of fractions ➢ Converting mixed fractions to improper fractions ➢ Converting improper fractions by mixed fractions ➢ Finding equivalent fractions ➢ Reducing fractions ➢ Ordering fractions ➢ Comparing fractions ➢ Fraction of a group ➢ Addition of fractions with similar denominators ➢ Word problems on addition of fractions ➢ Subtraction of fractions with similar denominators ➢ Word problems involving fractions
P.5	➢ Addition of fractions with different denominators ➢ Word problems on addition of fractions ➢ Subtraction of fractions with different denominators ➢ Word problems on subtraction of fractions ➢ Multiplication of a fractions by a fraction ➢ Multiplication of a fractions by a whole number ➢ Word problems on multiplication of fractions ➢ Finding reciprocal/multiplicative inverse ➢ Division of fractions

	➢ *Word problems on division of fractions* ➢ *Mixed operation on fractions (using BODMAS)* ➢ *Comparing fractions* ➢ *Ordering fractions* ➢ *Application of fractions* *DECIMALS* ➢ *Place values of decimals up to hundredths* ➢ *Values of decimals* ➢ *Expanding decimals* ➢ *Writing in short form* ➢ *Writing decimals in words* ➢ *Writing decimals in figures* ➢ *Converting decimals to fractions* ➢ *Changing vulgar fractions to decimals* ➢ *Comparing decimals* ➢ *Ordering decimals* ➢ *Addition of decimals* ➢ *Word problems on addition of decimals* ➢ *Subtraction of decimals* ➢ *Word problems on subtraction of decimals* ➢ *Multiplication of decimals* ➢ *Division of decimals*
P.6	➢ *Addition and subtraction of fractions* ➢ *Word problems on addition and subtraction of fractions* ➢ *Multiplication of fractions* ➢ *Word problems on multiplication of fractions* ➢ *Finding reciprocal/multiplicative inverse* ➢ *Division of fractions* ➢ *Word problems on division of fractions* ➢ *Mixed operation on fractions (using BODMAS)* ➢ *Application of fractions* *DECIMALS* ➢ *Changing vulgar fractions to decimals* ➢ *Changing non-recurring decimals to vulgar fractions* ➢ *Changing recurring decimals to vulgar fractions* ➢ *Addition and subtraction of decimals* ➢ *Multiplication of decimals* ➢ *Division of decimals* ➢ *Mixed operations* ➢ *Multiplication and division of decimals*

- Application of decimals

- **RATIOS AND PROPORTIONS**

- Meaning of ratios
- Expressing quantities as ratios
- Sharing in ratios
- Solving problems on ratios
- Increase and decrease in ratios
- Finding ratio of increase and decrease
- Finding numbers increased in ratio
- Finding numbers decreased in ratios
- Direct proportions
- Inverse proportions

- **PERCENTAGES**

- Meaning of percentages
- Expressing percentages as fractions
- Expressing fractions as percentages
- Expressing percentages as ratios
- Expressing ratios as percentages
- Expressing percentages as decimals
- Expressing decimals as percentages
- Expressing quantities as percentages
- Expressing one quantity as a percentage of another
- Finding quantities equivalent to percentage
- Sharing quantities using percentages
- Forming and solving equations
- Increasing or decreasing quantities using percentages
- Finding percentage of increase and decrease
- Percentage increase and decrease
- Percentage profit and loss
- Finding (SP) when cost price (CP) percentage profit or loss are given
- Finding cost price(CP) when given selling price (SP) and percentage profit.
- Finding cost price(CP) when given selling price (SP) and percentage loss.
- Percentage discount
- Finding simple interest
- Finding rate
- Finding time
- Finding principal

P.7	➢ *Addition and subtraction of fractions* ➢ *Multiplication of fractions* ➢ *Division of fractions* ➢ *Mixed operation on fractions (using BODMAS)* ➢ *Application of fractions* ➢ *Application of fractions involving "of the remainder"* ➢ *Application of fractions involving "taps"* • ***DECIMALS*** ➢ *Changing vulgar fractions to decimals* ➢ *Changing non-recurring decimals to vulgar fractions* ➢ *Changing recurring decimals to vulgar fractions* ➢ *Addition and subtraction of decimals* ➢ *Multiplication of decimals* ➢ *Division of decimals* ➢ *Mixed operations* ➢ *Application of decimals* • ***RATIOS AND PROPORTIONS*** ➢ *Expressing quantities as ratios* ➢ *Sharing in ratios* ➢ *Solving problems on ratios* ➢ *Increase and decrease in ratios* ➢ *Finding ratio of increase and decrease* ➢ *Finding numbers increased in ratio* ➢ *Finding numbers decreased in ratios* ➢ *Direct proportions* ➢ *Inverse proportions* • ***PERCENTAGES*****……66** ➢ *Expressing quantities as percentages* ➢ *Expressing one quantity as a percentage of another* ➢ *Forming and solving equations* ➢ *Increasing or decreasing quantities using percentages* ➢ *Finding percentage of increase and decrease* ➢ *Finding original numbers after increase* ➢ *Finding original numbers after decrease* ➢ *Percentage increase and decrease* ➢ *Percentage profit and loss*

	➢ *Finding selling price(SP) when cost price (CP) percentage profit or loss are given* ➢ *Finding cost price(CP) when given selling price (SP) and percentage profit.* ➢ *Finding cost price(CP) when given selling price (SP) and percentage loss.* ➢ *Mixed application of profit and loss* ➢ *Finding discount* ➢ *Percentage discount* ➢ *Finding marked price when given percentage discount and cash price* ➢ *Finding simple interest* ➢ *Finding rate* ➢ *Finding time* ➢ *Finding principal* ➢ *More about simple interest*
THEME	NUMERACY
TOPIC	INTEGERS
P.3	
P.4	
P.5	➢ *Identifying integers on a number line* ➢ *Comparing integers using a number line* ➢ *Ordering integers using a number line* ➢ *Addition of integers without a number line* ➢ *Addition of integers with a number line* ➢ *Subtraction of integers without a number line* ➢ *Subtraction of integers with a number line.* ➢ *Finding additive inverse* ➢ *Multiplication of integers without a number line.* ➢ *Multiplication of integers with a number line.* ➢ *Simple word problems on integers*
P.6	➢ *Arranging and comparing integers using a number line* ➢ *Addition and subtraction of integers with and without a number line* ➢ *Subtraction of integers with and without a number line.* ➢ *Multiplication of integers with and without a number line.*

	➢ *Division of integers with and without a number line.* ➢ *Application of integers* • ***FINITE / MODULAR SYSTEM*** ➢ *Writing numbers in finite system* ➢ *Equivalences in finite system* ➢ *Addition in finite system* ➢ *Subtraction in finite system* ➢ *Multiplication in finite system* ➢ *Division in finite system* ➢ *Application of finite system in days of the week.* ➢ *Application of finite system in 12 and 24 hour time.* ➢ *Application of finite system in months of the year.* ➢ *Applying more than one finite in solving problems* ➢ *Solving equations*
P.7	➢ *Arranging and ordering integers using a number line* ➢ *Addition and subtraction of integers with and without a number line.* ➢ *Multiplication of integers with and without a number line.* ➢ *Division of integers with and without a number line.* ➢ *Writing mathematical statements / sentences* • ***FINITE / MODULAR SYSTEM*** ➢ *Writing numbers in finite system* ➢ *Equivalences in finite system* ➢ *Addition in finite system* ➢ *Subtraction in finite system* ➢ *Multiplication in finite system* ➢ *Division in finite system* ➢ *Application of finite system in days of the week.* ➢ *Application of finite system in 12 and 24 hour time.* ➢ *Application of finite system in months of the year.* ➢ *Applying more than one finite in solving problems* ➢ *Solving equations*
THEME	INTEPRETATION OF GRAPHS AND DATA
TOPIC	DATA HANDLING

P.3	➢ Collecting data using tables ➢ Interpreting tables ➢ Drawing picto graphs ➢ Interpreting picto graphs ➢ Drawing bar graphs ➢ Interpreting bar graphs
P.4	➢ Recognizing scales on a graph ➢ Drawing picto graphs ➢ Interpreting picto graphs ➢ Drawing bar graphs ➢ Interpreting bar graphs ➢ Drawing line graphs ➢ Interpreting line graphs ➢ Tallies
P.5	➢ Recognizing scales on a graph ➢ Measures of central tendency and range ➢ Drawing picto graphs ➢ Interpreting picto graphs ➢ Drawing bar graphs ➢ Interpreting bar graphs ➢ Drawing line graphs ➢ Interpreting line graphs ➢ Probability on a coin ➢ Probability on a dice
P.6	➢ Revision about graphs ➢ Pie charts involving degrees ➢ Pie charts involving percentages ➢ Pie charts involving fractions ➢ Solving problems on pie charts ➢ Construction of pie charts ➢ Measures of central tendency and range (statistics) ➢ Complex mean / average ➢ Probability
P.7	➢ Temperature graphs ➢ Solving problems on pie charts ➢ Construction of pie charts

	➢ Measures of central tendency and range (statistics) ➢ Complex mean / average ➢ Probability ➢ Plotting coordinates ➢ Plotting and joining coordinates ➢ Completing tables using equation of line ➢ Drawing lines for given ordered pairs
THEME	MEASUREMENTS
TOPIC	MONEY
P.3	➢ Recognition of money in Uganda shillings ➢ Addition of money ➢ Subtraction of money ➢ Conversion of money ➢ Making a simple budget ➢ Interpreting shopping lists
P.4	➢ Recognition of money in Uganda shillings ➢ Addition of money ➢ Subtraction of money ➢ Conversion of money ➢ Shopping lists ➢ Table bills ➢ Finding profit ➢ Finding CP when SP and profit are given ➢ Finding SP when CP and profit are given ➢ Finding loss ➢ Finding CP when SP and loss are given ➢ Finding SP when CP and loss are given
P.5	➢ Shopping lists ➢ Table bills ➢ Finding profit ➢ Finding CP when SP and profit are given ➢ Finding SP when CP and profit are given ➢ Finding loss ➢ Finding CP when SP and loss are given ➢ Finding SP when CP and loss are given

P.6	➢ Bank notes ➢ Shopping lists ➢ Table bills ➢ Exchange rates ➢ Buying and selling of money
P.7	
THEME	MEASUREMENTS
TOPIC	DISTANCE, TIME AND SPEED
P.3	➢ Reading different clocks ➢ Meaning of "to" and "past" ➢ Telling time in hours and half hours ➢ Showing time on clock faces in hours and half hours ➢ Telling time using quarter hours ➢ Showing time on clock faces in quarter hours ➢ Converting hours to minutes and vice versa ➢ Days of the week and months of the year ➢ Converting weeks to days and vice versa ➢ Addition of time(hours and minutes) ➢ Subtraction of time(hours and minutes) ➢ Addition of time(weeks and days) ➢ Subtraction of time(weeks and days) ➢ Making a calendar ➢ Making a personal time table
P.4	➢ Telling time using "quarter", "half", "past" and "to" ➢ Showing time on clock faces ➢ Telling time using am and pm ➢ Converting weeks to days and vice versa ➢ Converting hours to minutes and vice versa ➢ Converting minutes to seconds and vice versa ➢ Addition of time(hours and minutes) ➢ Subtraction of time(hours and minutes) ➢ Addition of time(weeks and days) ➢ Subtraction of time(weeks and days) ➢ The calendar ➢ Making a time table
P.5	➢ Telling time using past and to

	➢ Telling time using am and pm ➢ Converting hours to minutes and vice versa ➢ Converting minutes to seconds and vice versa ➢ Addition of time(hours and minutes) ➢ Subtraction of time(hours and minutes) ➢ Duration ➢ Finding distance, ➢ Finding speed ➢ Finding time
P.6	➢ Converting from 12 hr clock to 24 hr clock ➢ Converting from 24 hr clock to 12 hr clock ➢ Duration ➢ Finding distance, ➢ Finding speed ➢ Finding time ➢ Changing from km/hr to m/sec and vice versa ➢ Average speed ➢ Time tables ➢ Travel graphs ➢ Drawing travel graphs
P.7	➢ Converting from 12 hr clock to 24 hr clock ➢ Converting from 24 hr clock to 12 hr clock ➢ Duration ➢ Distance, speed and time ➢ Changing from km/hr to m/sec and vice versa ➢ Average speed ➢ Time tables ➢ Travel graphs ➢ Drawing travel graphs
THEME	GEOMERY
TOPIC	LINES ANGLES AND GEOMETRIC FIGURES
P.3	➢ Drawing and naming 2-dimensional shapes ➢ Drawing and naming 3-dimensional shapes ➢ Forming solids
P.4	➢ Drawing and naming figures

	➢ Drawing and measuring line segments ➢ Construction of an equilateral triangle ➢ Drawing a square with a protractor ➢ Construction of a square ➢ Drawing a rectangle with a protractor ➢ Construction of a rectangle ➢ Right angles ➢ Complementary angles ➢ Supplementary angles ➢ Area and perimeter of triangles ➢ Area and perimeter of squares ➢ Area and perimeter of rectangles ❖ **3-DIMENSIONAL GEOMETRY** ➢ Drawing and naming solid figures ➢ Properties of solid figures
P.5	➢ Names of polygons ➢ Parallel lines ➢ Construction of parallel lines ➢ Drawing angles using a protractor ➢ Measuring angles using a protractor ➢ Types of lines ➢ Drawing and measuring line segments ➢ Construction of special angles ➢ Bisecting angles ➢ Construction of an equilateral triangle when given sides ➢ Construction of an equilateral triangle in a circle ➢ Construction of a square when given a side ➢ Construction of a square in a circle ➢ Construction of a rectangle when given sides ➢ Construction of a regular hexagon in a circle ➢ Circle properties ➢ Angles in a triangle ➢ Supplementary angles ➢ Complementary angles ➢ Lines of folding symmetry ➢ Revolutions and rotations ➢ Angles on a compass and a clock face
P.6	➢ Names of polygons

	➢ Interior and exterior angles ➢ Finding number of sides of a polygon ➢ Finding number of triangles ➢ Finding number of right angles ➢ Finding number of sides when given right angles and triangles ➢ Finding interior angle sum ➢ Finding number of sides when given interior angle sum ➢ Interior angles of a triangle ➢ Interior and exterior angles of a triangle ➢ Angles of an isosceles triangle ➢ Exterior angles of polygons ➢ Angles on parallel lines ➢ More about angles on parallel lines ➢ Properties of quadrilaterals ➢ Complementary angles ➢ Supplementary angles • CONSTRUCTION..... ➢ Constructing special angles ➢ Constructing other angles ➢ Constructing perpendicular bisectors ➢ Constructing perpendicular lines from a point ➢ Construction of parallel lines ➢ Construction of a pentagon when given side ➢ Construction of polygons using a centre angle ➢ Construction of a square when given a side ➢ Construction of a square in a circle ➢ Construction of a square using diagonals ➢ Construction of a rectangle when given sides ➢ Construction of a triangle when given sides(SSS) ➢ Construction of a triangle when given two sides and one angle(SAS) ➢ Construction of a triangle when given two angles and one side(ASA) ➢ Construction of a rhombus when given side and angle
P.7	➢ Names of polygons ➢ Interior and exterior angles ➢ Finding number of sides of a polygon ➢ Finding number of triangles and right angles ➢ Finding number of sides when given right angles and triangles

	➢ *Finding interior angle sum* ➢ *Finding number of sides when given interior angle sum* ➢ *Angles of an isosceles triangle* ➢ *Interior and exterior angles of a triangle* ➢ *More about angles on triangles* ➢ *Interior angles of other polygons* ➢ *Exterior angles of polygons* ➢ *Angles on parallel lines* ➢ *More about angles on parallel lines* ➢ *Properties of quadrilaterals* ➢ *Complementary angles* ➢ *Supplementary angles* • ***CONSTRUCTION*** ➢ *Constructing special angles* ➢ *Constructing other angles* ➢ *Constructing perpendicular bisectors* ➢ *Constructing perpendicular lines from a point* ➢ *Construction of a square using diagonals* ➢ *Construction of a rectangle when given one side and diagonals* ➢ *Construction of a triangle when given sides(**SSS**)* ➢ *Construction of a triangle when given two sides and one angle(**SAS**)* ➢ *Construction of a triangle when given two angles and one side(**ASA**)* ➢ *Construction of a rhombus when given diagonals* ➢ *Construction of a rhombus when given side and angle* ➢ *Construction of a parallelogram when given side and angle* ➢ *Construction of a parallelogram when given diagonals and side* ➢ *Construction of a parallelogram when given sides and one diagonal* ➢ *Construction of a trapezium* • ***BEARING AND SCALE DRAWING*** ➢ *Rotations and revolutions* ➢ *Angles on a compass and clock face* ➢ *Ordinary bearing (directions)* ➢ *True bearing* ➢ *More about true bearing* ➢ *Opposite bearing* ➢ *Expressing distance in a given scale*

	➢ *Scale drawing*
THEME	MEASUREMENTS
TOPIC	LENGTH, MASS AND CAPACITY
P.3	➢ *Measuring length* ➢ *Comparing length of different objects* ➢ *Converting m to cm and vice versa* ➢ *Addition of length(m and cm)* ➢ *Subtraction of length(m and cm)* ➢ *Naming parts of shapes* ➢ *Finding perimeter* ➢ *Finding area using squares* ➢ *Finding area using units* ➢ *Completing tables on length* ➢ *Solving problems on length* ➢ *Measuring weight* ➢ *Comparing weight of different objects* ➢ *Converting kg to g and vice versa* ➢ *Addition of weight(kg and g)* ➢ *Subtraction of weight(kg and g)* ➢ *Solving problems on weight* ➢ *Measuring capacity* ➢ *Comparing capacity of different objects* ➢ *Converting litres to ml and vice versa* ➢ *Addition of capacity(L and ml)* ➢ *Subtraction of capacity(L and ml)* ➢ *Solving problems on capacity*
P.4	➢ *Measuring length* ➢ *Converting cm to mm and vice versa* ➢ *Converting m to cm and vice versa* ➢ *Converting km to m and vice versa* ➢ *Addition of length* ➢ *Subtraction of length* ➢ *Measuring weight* ➢ *Converting kg to g and vice versa* ➢ *Addition of weight* ➢ *Subtraction of weight* ➢ *Measuring capacity* ➢ *Converting litres to ml and vice versa*

	➢ *Addition of capacity* ➢ *Subtraction of capacity* ➢ *Solving problems involving length, mass and capacity*
P.5	➢ *Converting mm to cm and vice versa* ➢ *Converting m to cm and vice versa* ➢ *Converting km to m and vice versa* ➢ *Addition and subtraction of mass* ➢ *Area and perimeter of triangles* ➢ *Area and perimeter of squares* ➢ *Area and perimeter of rectangles* ➢ *Area and perimeter of a trapezium* ➢ *Finding shaded area* ➢ *Area of combined shapes* ➢ *Converting kg to g and vice versa* ➢ *Addition and subtraction of mass* ➢ *Converting litres to ml and vice versa* ➢ *Finding volume of a cube* ➢ *Finding volume of a cuboid* ➢ *Changing volume to capacity* ➢ *Solving problems involving capacity*
P.6	➢ *Conversion of length, mass and capacity. (review)* ➢ *Finding perimeter. (review)* ➢ *Finding area of simple shapes. (review)* ➢ *Finding area of square, rhombus and kite using diagonals.* ➢ *Finding perimeter and area of parallelogram* ➢ *Comparing sides of polygons* ➢ *Circle properties* ➢ *Finding circumference of a circle and parts of a circle* ➢ *Finding perimeter of a circle and parts of a circle* ➢ *Finding radius or diameter when given circumference* ➢ *More about perimeter (irregular figures)* ➢ *Finding area of a circle and parts of a circle* ➢ *Finding radius or diameter when given area* ➢ *Finding area of combined shapes* ➢ *Finding shaded area* ➢ *Finding missing sides using Pythagoras' theorem* ➢ *Application of Pythagoras' theorem in an isosceles triangle, trapezium and a rhombus*

	• **VOLUME AND SURFACE AREA** ➢ Solid figures their properties and their nets ➢ Converting from (cm^2) to (cm^2) and vice versa ➢ Converting from square (km^2) to (m^2) and vice versa ➢ Converting from (m^3) to (cm^3) and vice versa ➢ Volume and capacity of a cube ➢ Volume and capacity of a cuboid ➢ Finding missing sides when given volume of a cuboid ➢ Volume and capacity of cylinders ➢ Finding missing sides when given volume of a cylinder ➢ Volume and capacity of triangular prisms ➢ Finding missing sides when given volume of a triangular prism ➢ TSA of cubes and cuboids ➢ Find missing sides when given TSA of cubes and cuboids
P.7	➢ Conversion of length, mass and capacity. (review) ➢ Finding perimeter. (review) ➢ Finding area of simple shapes. (review) ➢ Finding area of square, rhombus and kite using diagonals. ➢ Finding perimeter and area of parallelogram ➢ Comparing sides of polygons ➢ Using apothem to find area ➢ More about area ➢ Circle properties ➢ Finding circumference of a circle and parts of a circle ➢ Finding perimeter of a circle and parts of a circle ➢ Finding radius or diameter when given circumference ➢ Finding radius or diameter when given perimeter ➢ More about perimeter (irregular figures) ➢ Finding area of a circle and parts of a circle ➢ Finding radius or diameter when given area ➢ Finding area of combined shapes ➢ Finding shaded area ➢ More about circumference (revolutions) ➢ More about perimeter. (no. of poles) • **VOLUME AND SURFACE AREA** ➢ Converting from square metres (cm^2) to square centimetres (cm^2)

	and vice versa ➢ Converting from square kilometres (km^2) to square metres (m^2) and vice versa ➢ Converting from cubic metres (cm^3) to cubic centimetres (cm^3) and vice versa ➢ Volume and capacity of cylinders ➢ Finding missing sides when given volume of a cylinder ➢ Volume and capacity of triangular prisms ➢ Finding missing sides when given volume of a triangular prism ➢ More about cylinders ➢ Volume and capacity of trapezoidal prisms ➢ TSA of cubes and cuboids ➢ Find missing sides when given TSA of cubes and cuboids ➢ TSA of a triangular prism ➢ TSA of a trapezoidal prism ➢ TSA of closed cylinders ➢ TSA of cylinders closed one end ➢ TSA of hollow cylinders ➢ Packing boxes in boxes ➢ Packing cylinders in boxes ➢ Comparing volume of different objects
THEME	ALGEBRA
TOPIC	ALGEBRA
P.3	
P.4	➢ Collecting like terms ➢ Substitution ➢ Missing numbers with addition ➢ Missing numbers with subtraction ➢ Missing numbers with multiplication ➢ Missing numbers with division ➢ Forming and solving equations ➢ Completing magic squares
P.5	➢ Algebraic phrases and expressions ➢ Collecting like terms ➢ Substitution

	➢ Solving simple equations ➢ Solving equations involving fractions ➢ More about solving equations ➢ Forming and solving equations ➢ Finding missing sides of a square when given area ➢ Finding missing sides of a square when given perimeter ➢ Finding missing sides of a rectangle when given area ➢ Finding missing sides of a rectangle when given perimeter ➢ Finding missing sides of a triangle when given area ➢ Finding missing sides of a cuboid when given volume
P.6	➢ Algebraic phrases and expressions ➢ Substitution ➢ Collecting like terms ➢ Addition and subtraction of fractional algebraic terms ➢ Multiplication and division of fractional algebraic terms ➢ Removing brackets ➢ Removing brackets in fractional algebraic terms ➢ Powers or Indices ➢ Solving simple equations ➢ Solving equations involving squares and square roots ➢ Solving equations involving brackets ➢ Solving equations involving fractions ➢ Forming and solving equations ➢ Application of algebra in ages ➢ Finding solution sets ➢ Solving and writing solution sets
P.7	➢ Algebraic phrases and expressions ➢ Substitution ➢ Collecting like terms ➢ Addition and subtraction of fractional algebraic terms ➢ Multiplication and division of fractional algebraic terms ➢ Factorizing completely ➢ Removing brackets ➢ Removing brackets in fractional algebraic terms ➢ Solving simple equations ➢ Solving equations involving squares and square roots ➢ Solving equations involving brackets ➢ Solving equations involving fractions

	➢ *Forming and solving equations* ➢ *Application of algebra in ages* ➢ *Finding solution sets* ➢ *Solving and writing solution sets* ➢ *Finding solution sets with compound inequalities* ➢ *Solving and writing solution sets with compound inequalities*

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