

KENDRIYA VIDYALAYA IFFCO BAREILLY, REGION- LUCKNOW

पाठ्य योजना अध्यापक दैनन्दिनी (Lesson Plan-Teachers Diary) (A) Planning Format, Annexure-1

Class/Section: - VIII

Subject: - MATHS

Chapter: - 3-UNDERSTANDING QUADRILATERALS

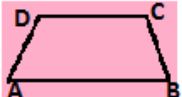
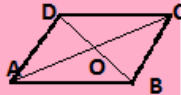
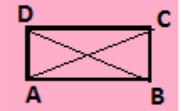
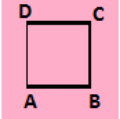
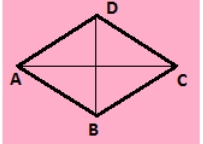
No. of periods: - 09

Date of Commencement:-

Expected date of completion:-

Actual date of completion:-

Gist Of The lesson	Targeted learning outcomes (TLO)	Teaching learning activities planned for achieving the TLO using suitable resources and classroom management strategies	ASSESSMENT STRATEGIES PLANNED
Focused skills/Competencies			
INTRODUCTION OF POLYGONS, CLASSIFICATION OF POLYGONS, DIAGONALS, CONVEX AND CONCAVE POLYGONS & REGULAR AND IRREGULAR POLYGONS	To identify polygons, diagonals, interior and exterior regions, difference between convex and concave polygons, difference between regular and irregular polygons.	Explain all the concepts using figures. Polygons → interior exterior irregular convex concave regular	H/W (Qns from exercises) Oral test
ANGLE SUM PROPERTY	To understand the angle sum of a quadrilateral is 360° and the interior angle sum of a polygon of n sides is $(n-2)180^\circ$	$\angle A + \angle B + \angle C + \angle D = 360^\circ$ (Prove by using the angle sum property of triangles)	H/W (Qns from exercises) Oral test Dictation
EXTERIOR ANGLE SUM OF POLYGONS	To understand the sum of all exterior angles of a polygons is 360°	$180-x + 180-y + 180-z + 180-w = 720 - (x+y+z+w) = 720 - 360 = 360$	
		For a regular polygon , each exterior angle $= \frac{360}{n}$ and if the angle is given each side $= \frac{360}{\theta}$	

KINDS OF QUADRILATERALS	To identify the different kinds of quadrilaterals and their properties	Show the different kinds of quadrilaterals on the board and explain their properties.  Trapezium $AB \parallel CD$  Kite $AB=BC \text{ \& } AD=CD$  Parallelogram $AB \parallel CD \text{ and } AD \parallel BC$ $AB=CD \text{ and } AD=BC$ $\angle A = \angle C, \angle B = \angle D$ and the diagonals bisect each other at O  Rectangle It is a parallelogram with each angle is 90° and both the diagonals are equal  Square It is a parallelogram with all sides equal and each angle 90°  Rhombus It is a parallelogram with all sides equal and its diagonals are perpendicular to each other Demonstrate the problems by using the different properties of the quadrilaterals. Do the exercise questions	H/W (Qns from exercises) Oral test Class test LAT
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Name and Signature of the Teacher: - Mr. S. P. SHARMA, TGT (MATHS)

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Class/Section:-VIII

Subject:-MATHS

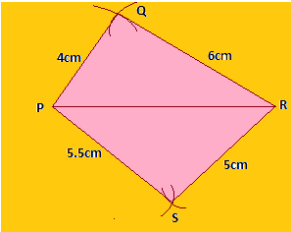
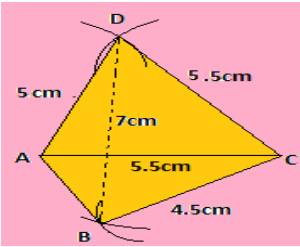
Chapter:- 4-PRACTICAL GEOMETRY

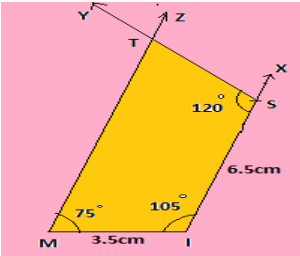
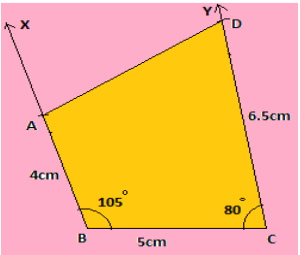
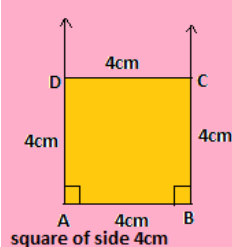
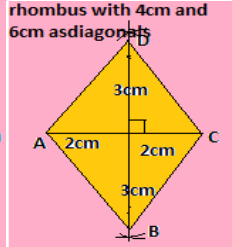
No. of periods: - 10

Date of Commencement: -

Expected date of completion: -

Actual date of Completion:-

Gist Of The lesson	Targeted learning outcomes (TLO)	Teaching learning activities planned for achieving the TLO using suitable resources and classroom management strategies	ASSESSMENT STRATEGIES PLANNED
Focused skills/Competencies			
INTRODCTION: CONSTRUCTING QUADRILATERALS 1. When the lengths of four sides and a diagonal are given	To understand how to draw a quadrilateral whose three sides and a diagonal are known	Consider the construction of a quadrilateral PQRS where PQ=4cm, QR=6cm, RS=5cm PS=5.5cm and PR=7cm * Draw the diagonal PS = 7cm * With P as centre draw an arc of radius 4cm and with R as centre draw another arc of radius 6cm on the same side to intersect the previous arc at Q * With P as centre draw an arc of radius 5.5cm and with R as centre draw an arc of radius 5cm on the other side which intersect at S * Join PQ, RQ, PS and RS  Do more eggs from the exercise.	H/W (Qns from exercises) Oral test Assignment
2. When two diagonals and three sides are given	To understand how to draw a quadrilateral whose diagonals and any other three sides are known	Consider the construction of quadrilateral ABCD, given that BC = 4.5cm, AD = 5cm, CD= 5.5cm, AC = 5.5cm and BD = 7cm. * Draw AC=5.5cm. * With A and C as centres respectively draw arcs of radii 5cm and 5.5cm on the same side of AC. Let the arcs intersect at D. * With D as centre draw arc of radius 7cm and with C as centre draw another arc of radius 4.5cm on the opposite side of AC. Let the arcs intersect at B *Join AB, BC, AD and CD  Consider the construction of a quadrilateral MIST where	

3. When two adjacent sides and three angles are known	To understand how to draw the quadrilaterals whose three angles and two adjacent sides are given	$MI = 3.5\text{cm}$, $IS = 6.5\text{cm}$, $\angle M = 75^\circ$, $\angle I = 105^\circ$ and $\angle S = 120^\circ$. * Draw $MI = 3.5\text{cm}$. Draw a ray IX such that $\angle MIX = 105^\circ$ * Cut $IS = 6.5\text{cm}$ in IX. Draw a ray SY such that $\angle ISY = 120^\circ$ * Draw another ray MZ such that $\angle IMZ = 75^\circ$, which intersect SY at T  Practice more questions from the text book.	H/W (Qns from exercises) Oral test Dictation
4. When three sides and included angles are given	To know how to draw the quadrilateral if three sides and the included angles are given	Consider the construction of ABCD where $AB=4\text{cm}$, $BC=5\text{cm}$, $CD=6.5\text{cm}$ and $\angle B = 105^\circ$, $\angle C = 80^\circ$. * Draw $BC = 5\text{cm}$. Draw rays BX and CY such that $\angle CBX = 105^\circ$ and $\angle BCY = 80^\circ$ * Cut $BA = 4\text{cm}$ and $CD = 6.5\text{cm}$ on the rays. Join AD. 	
5. Special Quadrilaterals. Square, Rhombus, rectangle and parallelogram	The children should be able to draw the special quadrilaterals using their properties.	With the properties explain how the special quadrilaterals can be constructed  square of side 4cm  rhombus with 4cm and 6cm as diagonals Do more questions from the text book.	H/W (Qns from exercises) Oral test Class test LAT

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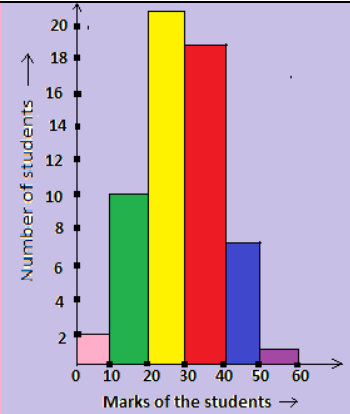
पाठ्य योजना अध्यापक दैनन्दिनी (Lesson Plan-Teachers Diary) (A) Planning Format, Annexure-1

Class/Section :-VIII Subject :-MATHS Chapter:- 5-DATA HANDLING No. of periods:- 10

Date of Commencement:- Expected date of completion:- Actual date of Completion:-

Gist Of The lesson	Targeted learning outcomes (TLO)	Teaching learning activities planned for achieving the TLO using suitable resources and classroom management strategies	ASSESSMENT STRATEGIES PLANNED
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INTRODUCTION BAR GRAPH, DOUBLE BAR GRAPHS etc	To be able to recollect the ideas about bar graphs, double bar graphs, tally marks etc.	Give the definition of data and a raw data. Then explain how a raw data can be organized using tally marks, which is called frequency distribution table Consider the list of favourite subjects of a group of students. Art, Maths, Science, English, Maths, Art, English, Maths, English, Art, Science, Art, Science, Science, Maths, Art, English, Art, Science, Maths, Science, Art. <table><tr><td>Subject</td><td>Tally marks</td><td>No of students</td></tr><tr><td>Art</td><td> II</td><td>7</td></tr><tr><td>Maths</td><td> </td><td>5</td></tr><tr><td>Science</td><td> I</td><td>6</td></tr><tr><td>English</td><td> </td><td>4</td></tr></table>	Subject	Tally marks	No of students	Art	II	7	Maths		5	Science	I	6	English		4	H/W (Qns from exercises) Oral test Assignment									
Subject	Tally marks	No of students																									
Art	II	7																									
Maths		5																									
Science	I	6																									
English		4																									
GROUPING DATA	To understand the concept of class intervals, class limits, size of the class and how to make grouped frequency table for a given data	Explain the class intervals and class limits by using examples In the class 10-20 , 10 is called lower limit and 20 is called the upper limit. The difference 20–10 = 10 is called the class with or size of the class. If the lower limit is included and the upper limit is excluded the classes are called continuous classes. Consider the marks obtained by 60 students in Maths out of 50. 21, 10, 30, 22, 33, 5, 37, 12, 25, 42, 15, 39, 26, 32, 18, 27, 28, 19, 29, 35, 31, 24, 36, 18, 20, 38, 22, 34, 16, 24, 10, 27, 39, 28, 49, 29, 32, 23, 31, 21, 34, 22, 23, 36, 24, 36, 33, 47, 48, 50, 39, 20, 7, 16, 36, 45, 47, 30, 22, 17. <table><tr><td>Groups</td><td>Tally marks</td><td>Frequency</td></tr><tr><td>0-10</td><td>II</td><td>2</td></tr><tr><td>10-20</td><td> </td><td>10</td></tr><tr><td>20-30</td><td> I</td><td>21</td></tr><tr><td>30-40</td><td> </td><td>19</td></tr><tr><td>40-50</td><td> II</td><td>7</td></tr><tr><td>50-60</td><td>I</td><td>1</td></tr><tr><td colspan="2">Total</td><td>60</td></tr></table>	Groups	Tally marks	Frequency	0-10	II	2	10-20		10	20-30	I	21	30-40		19	40-50	II	7	50-60	I	1	Total		60	H/W (Qns from exercises) Oral test Dictation
Groups	Tally marks	Frequency																									
0-10	II	2																									
10-20		10																									
20-30	I	21																									
30-40		19																									
40-50	II	7																									
50-60	I	1																									
Total		60																									
HISTOGRAM	To understand how to draw the histogram for a given data And what is the difference between the bar graph and histogram.	To draw the histogram take class limits along x-axis and frequencies along y- axis. On each class draw a bar whose height is proportional to the frequency. For the above grouped frequency distribution table draw the histogram.	H/W (Qns from exercises) Oral test																								

			Class test
CIRCLE GRAPH OR PIE CHART	To be able to draw a pie chart for a given data.	Draw a circle of suitable radius. For each data draw the corresponding sector whose angle is given by $\frac{\text{frequency}}{\text{total freq}} \times 360$ Consider sales in a shop Ordinary bread: 320, fruit bread: 80, cakes and pastries: 160, biscuits: 120, others: 40. Corresponding angles are 160°, 60°, 80°, 40° and 20° 	H/W (Qns from exercises) Oral test
CHANCE AND PROBABILITY	To understand the concept of chance and probability, outcomes. Equally likely outcomes etc.	Explain the terms random experiment, outcomes and equally likely outcomes. Then the probability is defined as the ratio of the number of favourable outcomes to the total number of equally likely outcomes. Probability = $\frac{\text{no.of outcomes in which the event is happened}}{\text{total number of equally likely outcomes}}$ If a die is thrown the equally likely outcomes are 1,2,3,4,5,6 Then $P(\text{ an even number }) = \frac{3}{6} = \frac{1}{2}$	H/W (Qns from exercises) Lab Activity:- Representing in a histogram/pie chart LAT

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Class/Section: - VIII

Subject: - MATHS

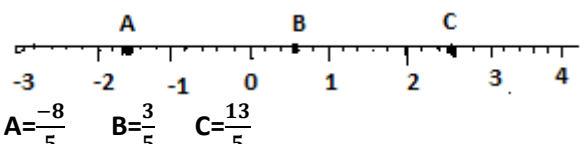
Chapter:- 4-Rational Numbers

No. of periods: - 12

Date of Commencement:-

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Gist Of The lesson	Targeted learning outcomes (TLO)	Teaching learning activities planned for achieving the TLO using suitable resources and classroom management strategies	ASSESSMENT STRATEGIES PLANNED
Focused skills/Competencies			
RATIONAL NUMBERS: Properties of Rational Numbers.	Describes properties of rational numbers and expresses them in general form. Understand the closure property, commutativity, associativity, distributive property, additive identity, additive inverse, multiplicative identity, multiplicative inverse or reciprocal.	Involve children in writing general form of rational numbers and to associate it with rules of algebra. The operations on algebraic expressions will help in describing properties of rational numbers. Verify the following properties using different rational numbers. For every rational numbers a, b and c $a + b, a - b, a \times b$ and $a \div b$ are rational $\rightarrow$ Closed $a + b = b + a, a \times b = b \times a,$ $a - b \neq b - a, a \div b \neq b \div a \rightarrow$ addition and multiplication are commutative but subtraction and division are not commutative and so on. Explain the properties of 0 and 1. Also define additive inverse and multiplicative inverse (reciprocal)	H/W (Qns from exercises) Oral test
Representation of Rational Numbers on number line.	Every rational number can be represented on a number line	Recall the representation of fractions on a number line. Demonstrate the method on the black board  $A = -\frac{8}{5}$ $B = \frac{3}{5}$ $C = \frac{13}{5}$	H/W (Qns from exercises) Oral test Class test
Rational Numbers between two given rational numbers	Reaches to the conclusion that between any two rational numbers there lies infinite rational numbers.	Encourage children to conclude that half of the sum of two rational numbers lies between them and thus a rational number can be obtained between any two rational numbers. Provide hints to the children to reach the conclusion that the process of finding a rational number between any two numbers never stops and thus there lie many rational numbers between any two rational numbers	Lab Activity:- Representing rational numbers on a number line. LAT

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Class/Section: - VIII

Subject: - MATHS

Chapter: -2- Linear Equations in one variable

No. of periods: - 10

Date of Commencement: -

Expected date of completion: -

Actual date of completion:-

Gist Of The lesson	Targeted learning outcomes (TLO)	Teaching learning activities planned for achieving the TLO using suitable resources and classroom management strategies	ASSESSMENT STRATEGIES PLANNED
Focused skills/Competencies			
LINEAR EQUATIONS IN ONE VARIABLES INTRODUCTION	To understand the form of a linear equation in one variable Recall the concepts of variables, constants and equations	Recollect the ideas of variables , constants, algebraic expressions and equations. The algebraic expressions in one variable with its highest power is 1, is called a linear equation in one variable OR any equation of the form $ax + b = 0$ is a linear equation in one variable. Egs: $-2x + 3 = 0$, $3y = 5$, $\frac{1}{2}x - 5 = 10$ etc.	H/W (Qns from exercises) Oral test Dictation
SOLUTION OF A LINEAR EQATION IN ONE VARIABLE	To understand the meaning of solution.	Demonstrate with eggs that the solution of a linear equation is the value of the variable which satisfy the equation. Egs:- $x + 5 = 10$ is satisfied by $x = 5$ so that $5 + 5 = 10$ So $x = 5$ is the solution of the given equation. Tell the children to give more examples.	H/W (Qns from exercises) Oral test Class test
SOLUTION OF A LINEAR EQUATION IN ONE VARIABLE	To find the solution of a given linear equation in one variable	Explain the method of transposing the terms from one side to another side of an equal sign. When a number is transposed from one side to another side the operation will be opposite. Step1:- Collect the variable terms on LHS and constants on RHS Step2:- Simplify both sides Step3:- Transpose the coefficient of the variable to the RHS To get the value of the variable (Solution) Egs:- $2x - 3 = 7$, $2x = 7 + 3$, $2x = 10$, $x = \frac{10}{2} = 5$ Discuss more egs in the class.	
EQUATIONS REDUCIBLE TO LINEAR EQUATION IN ONE VARIABLE	To understand how to simplify a given equation to convert it into a linear equation in one variable	Consider the equation of the form $\frac{2x+1}{5} + 3 = \frac{x}{2}$ Multiply the equation by the LCM of the denominators(10) $10(\frac{2x+1}{5}) + 10 \times 3 = 10 \times \frac{x}{2}$ $2(2x + 1) + 30 = 5x$. Solve as in the first case. If the equation is of the form $\frac{x+2}{2x+3} = \frac{3}{4}$, then Cross multiply $4(x + 2) = 3(2x + 3)$ Open the brackets and solve as in the previous cases	H/W (Qns from exercises) Oral test
		Raju has 13 marbles more than that Ravi has. If Raju has 49	

APPLICATIONS	To apply the concept of linear equations in variable in our daily life and how to solve it.	marbles with him How many marbles Ravi has? No. of marbles with Ravi = x Then $+13 = 49$. $x = 49 - 13 = 36$ Demonstrate more examples.	H/W (Qns from exercises) Oral test Class test
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1) Solve the following equations

(i) $3x + 5 = 10$

(ii) $4 - 2y = 9$

(iii) $5x = 35$

(iv) $3 = z + 4$

(v) $2x - 1 = 14 - x$

(vi) $3m = 5m - 3$

(vii) $\frac{6x+1}{3} + 1 = \frac{x-3}{6}$

(viii) $\frac{x-2}{3} = \frac{x-1}{5}$

2) Fifteen years from now Ravi's age will be four times his present age . What is Ravi's present age.

3) The denominator of a rational number is greater than the numerator by 8. If the numerator is increased by 17 and the denominator is decreased by 1 the number obtained is $\frac{3}{2}$. Find the rational number.

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Class/Section:-VIII

Subject:-MATHS

Chapter: - 6- SQUARES AND SQUARE ROOTS

No. of periods: - 12

Date of Commencement:-		Expected date of completion:-	Actual date of Completion:-
Gist Of The lesson	Targeted learning outcomes (TLO)	Teaching learning activities planned for achieving the TLO using suitable resources and classroom management strategies	ASSESSMENT STRATEGIES PLANNED
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INTRODUCTION SQUARE NUMBER OR A PERFECT SQUARE	To understand what is a square number.	Define a square number as the square of a natural number. For egs $100=10^2$ hence 100 is a square number. Ask the students to write the square of first 20 natural numbers.	1-By asking oral question. 2- Home work 3- By solving questions on black board.
PROPERTIES OF SQUARE NUMBERS.	Able to identify whether the given number is a perfect square or not.	Explain the properties by giving different egs. - A number ends with 2,3,7,or 8 will not be a perfect square. - From the unit digit write the unit's digit in the square number - Number of natural numbers between two consecutive perfect squares. - Write a perfect square as the sum of two consecutive integers. - Write a perfect square n^2 as the sum of first n odd numbers starting with 1	4- Class test H/W (Qns from exercises) Oral test Dictation
FINDING THE SQUARE OF A NUMBER	To find the square of a number by the distributive property, by using pattern.	$39^2 = (30+9)^2 = (30+9)(30+9) = 30 \times 30 + 30 \times 9 + 9 \times 30 + 9 \times 9 = 900 + 270 + 270 + 81 = 1521$ If the unit's digit is 5 , square= product of the number except 5 and its successor and the last 2 digits will be 25. $35^2 = (3 \times 4)25 = 1225$, Give more egs.	H/W (Qns from exercises) Oral test
PYTHAGOREAN TRIPLET	To understand that Pythagorean triplet is the collection of 3 three integers which satisfy the Pythagoras property.	Generally $2m, m^2 - 1$, and $m^2 + 1$ Pythagorean triplet. By using this if one number is given the other two members of the triplet can be calculated. Let one number is 8. Let $2m=8$, then $m=4$. Then the triplet is $2 \times 4, 4^2 - 1, 4^2 + 1$ That is 8,15,17. Do more questions.	Dictation Class Test
SQUARE ROOTS	To find the square root of a given number by different methods 1) By successive subtraction 2) By prime factorization 3) By division method	Explain the square root of a number as, If $a = b^2$ then b is called the square root of a and it is denoted by $\sqrt{a}$. $25=5^2$ then $\sqrt{25} = 5$ Explain the three methods of finding the square root of a given number by demonstrating different examples.	H/W LAT

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Class/Section :-VIII Subject :-MATHS

Chapter:- 7-CUBES AND CUBE ROOTS

No. of periods:- 10

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Gist Of The lesson	Targeted learning outcomes (TLO)	Teaching learning activities planned for achieving the TLO using suitable resources and classroom management strategies	ASSESSMENT STRATEGIES PLANNED
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INTRODUCTION: CUBE OF A NUMBER AND PERFECT CUBES	To understand the meaning of cube and identify the perfect cubes.	The product $a \times a \times a = a^3$ is called the cube of a. $2 \times 2 \times 2 = 2^3 = 8$ is a cube. If a number can be expressed as the cube of a natural number the number is called a perfect cube. $64=4^3$ hence 64 is a perfect cube. Demonstrate more examples.	1-By asking oral question. 2- Home work 3- By solving questions on black board. 4- Class test
VERIFY THE GIVEN NUMBER A PERFECT CUBE OR NOT.	To know how to verify a given number is a perfect cube or not.	Write the given number as the product of prime factors. Make groups of equal factors taking 3 at a time. If there is any factor left without group then the given number is not a perfect cube. $32 = 2 \times 2 \times 2 \times 2 \times 2$. $\therefore$ 32 is not a perfect cube $64 = 2 \times 2 \times 2 \times 2 \times 2 \times 2$. $\therefore$ 64 is a perfect cube. Give more examples to the children.	H/W (Qns from exercises) Oral test Dictation
CUBE ROOT OF A NUMBER	To find the cube root of a number by the method of prime factorization.	If $a^3 = b$ then a is called the cube root of b and it is denoted by the symbol $\sqrt[3]{}$. $27 = 3^3 \therefore \sqrt[3]{27} = 3$. To find the cube root of a number, Write the given number as the product of prime factors. Make groups of equal factors taking 3 at a time. Take one factor from each group and their product will be the cube root of the given number $64 = 2 \times 2 \times 2 \times 2 \times 2 \times 2$ $\therefore \sqrt[3]{64} = 2 \times 2 = 4$ Practice with more examples and make the children able to find cube root by prime factorization.	H/W LAT

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Class/Section: - VIII Subject:-MATHS

Chapter: - 8- COMPARING QUANTITIES

No. of periods: - 20

Date of Commencement: -

Expected date of completion: -

Actual date of Completion: -

Gist Of The lesson	Targeted learning outcomes (TLO)	Teaching learning activities planned for achieving the TLO using suitable resources and classroom management strategies	ASSESSMENT STRATEGIES PLANNED
Focused skills/Competencies			
INTRODUCTION:- RATIOS AND PERCENTAGES	To understand that ratio is a comparison of two quantities which are in same units. Percentage means the quantity out of 100.	Recall the concept of ratios and percentages from the lower classes through different examples. If the no. of boys = 25 and no. of girls = 20 the ratio of no. of boys to no. of girls $\frac{25}{20} = \frac{5}{4} = 5:4.$ $15\% \text{ of } 20 = \frac{15}{100} \times 20 = 3$ If a boy got 28 marks out of 40 then the percentage of marks = $\frac{28}{40} \times 100 = 70\%$. Do more eggs for getting practice.	1-By asking oral question. 2- Home work 3- By solving questions on black board. 4- Class test H/W (Qns from exercises)
INCREASE OR DECREASE PERCENT, DISCOUNT	To identify whether increase or decrease in the amount and how to find its percentage. Discount is reduction given on marked price.	Increase or decrease % = $\frac{\text{change in the amount}}{\text{initial amount (base)}} \times 100\%$ Discount = Marked price – Sale price Discount % = $\frac{\text{discount}}{\text{Marked price}} \times 100\%$ Demonstrate different problems to understand the formulae.	Oral test Dictation Class Test
COST PRICE, SELLING PRICE , LOSS %/ PROFIT %	To understand the relation between cost price, selling price and profit/loss and how to find the loss/profit %	Make the children understand that Profit = Selling Price – Cost Price = SP – CP and loss = CP – SP Profit % = $\frac{\text{profit}}{\text{CP}} \times 100$ and loss % = $\frac{\text{loss}}{\text{CP}} \times 100$ Explain the formula by doing different problems.	
SALES TAX/ VALUE ADDED TAX	To understand the difference between sales tax and value added tax (VAT)	The amount (a particular % of CP) is collected by the shopkeeper in addition to the SP for submitting to the govt is called the sales tax. In some situations the SP includes the tax, which is known as value added tax or VAT. Take different questions from the daily life.	H/W
COMPUND INTEREST	To find the compound Interest of a given amount with a given rate of interest for a particular period of time.	CI is calculated at the starting of each year by finding the simple interest on the amount = principal of the previous year + interest. The formula developed for finding the amount after n years= $P(1 + \frac{r}{100})^n$ where P = Principal, r = rate of interest per annum, n = the no. of full years. If the calculation is half yearly n becomes $\frac{n}{2}$ and r becomes $\frac{r}{2}$. CI = Amount – P The same formula can be used in the case of growth problems. For eggs population In the case of depreciation the formula becomes $P(1 - \frac{r}{100})^n$ Demonstrate more examples in the class room.	Lab Activity LAT

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पाठ्य योजना अध्यापक दैनन्दिनी (Lesson Plan-Teachers Diary) (A) Planning Format, Annexure-1

Class/Section: - VIII Subject:-MATHS Chapter: -9- ALGEBRAIC EXPRESSIONS AND IDENTITIES No. of periods:-10

Date of Commencement:-

Expected date of completion:-

Actual date of Completion:-

Gist Of The lesson	Targeted learning outcomes (TLO)	Teaching learning activities planned for achieving the TLO using suitable resources and classroom management strategies	ASSESSMENT STRATEGIES PLANNED
Focused skills/Competencies			
INTRODUCTION:- VARIABLES AND CONSTANTS ALGEBRAIC EXPRESSIONS	To understand the difference between variables and constants. To be able to make algebraic expressions.	Variables:- Those whose value is changing Constants:- Those whose value is fixed. Make the children understand the concepts of variables and constants through different examples. The combination of variables and constants by using addition, subtraction, multiplication and division. Egs:- $2x + 3$, $x - 5$, $x^2 + 2x - 4$, $\frac{y}{2} + 12$ etc.	1-By asking oral question. 2- Home work 3- By solving questions on black board. 4- Class test
TERMS OF AN EXPRESSION, FACTORS OF A TERM AND COEFFICIENTS.	To understand terms, factors and coefficients in an algebraic expression. To know how to identify the terms, factors and coefficients.	Terms are separated by addition. In the algebraic expression $x^2 + 2x - 4$ the terms are x^2 , $2x$ and -4 because $x^2 + 2x - 4 = x^2 + 2x + (-4)$ The factors of the constant and the variables are the factors of the term. $2xy + 3x^2$ The term $2xy$ is the product of 2, x and y which are the factors of $2xy$. The term $3x^2$ is the product of 3, x and x . The coefficient of a variable in a term is the remaining factor of that term. The coefficient of x in the term $2xy$ is $2y$. The numerical coefficient is the numerical factor of the term. The coefficient of x in the term $5x$ is 5. Do more problems from the text book.	
LIKE AND UNLIKE TERMS	To identify the like and unlike terms	The terms having the same variables with the same power are called like terms other wise they are called unlike terms. $2x$ and $5x$ are like terms. But $3x$ and $3x^2$ are unlike terms. Demonstrate more examples from the text book.	
MONOMIALS, BINOMIALS, TRINOMIALS AND POLYNOMIALS	To identify the monomials, binomials, trinomials and polynomials from a given collection of algebraic expressions.	Polynomials are the algebraic expressions in which all the variables have positive integral powers. $x^2 + 3x - 4$ is polynomial but $\frac{1}{x} + 3$, $\sqrt{x} + y$ etc are not polynomials. If the polynomial has only one term it is called monomial. If it has two terms binomial, and if it has three terms it is trinomial. $2xy$, x^2 , $5x$, 4etc. are monomials. $x^2 + 5$, $y - 7$ etc are binomials. $x + y + z$, $x^2 + 4x - 2$ are trinomials	

ADDITION AND SUBTRACTION OF ALGEBRAIC EXPRESSIONS	To understand that only like terms can be added or subtracted. Two algebraic expressions can be added by adding their like terms together.	Make the children understand that while adding two like terms the coefficients are added without any change in the Variable. Egs:- $2x + 3x = 5x$, $5x^2 - 2x^2 = 3x^2$ $(2xy + 4x^2) + (4xy - 3x^2) = (2xy + 4xy) + (4x^2 - 3x^2)$ $= 5xy + x^2$	Dictation H/W (Qns from exercises) Oral test
MULTIPLICATION OF POLYNOMIALS	To know how to multiply monomials , binomials, trinomials and polynomials by using opening brackets and laws of exponents.	$2xy \times 3x^2y = 2 \times 3 \times x \times x^2 \times y \times y = 6x^3y^2$ $2x(3x + 3y) = 2x \times 3x + 2x \times 3y = 6x^2 + 6xy$ $(3+x)(4-y) = 3 \times 4 - 3 \times y + x \times 4 - x \times y = 12 - 3y + 4x - xy$ Demonstrate the multiplication and simplification using more questions from the exercise.	Assignments
IDENTITIES	To know the difference between an equation and an identity and also the four standard identities.	Equation is satisfied only for certain values of the variable and the identities are satisfied for every value of the variable. $2x + 3 = 5$ is an equation. The four identities are ➤ $(a + b)^2 = a^2 + 2ab + b^2$ ➤ $(a - b)^2 = a^2 - 2ab + b^2$ ➤ $(a + b)(a - b) = a^2 - b^2$ ➤ $(x + a)(x + b) = x^2 + (a + b)x + ab$ Do the problems from the text book to understand the use of identity. By using identities show how to find the value of $(101)^2$, $(98)^2$, 102×98 , 103×105 etc.	

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Class/Section :-VIII

Subject: Maths

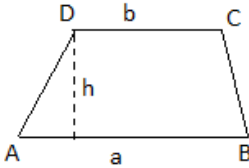
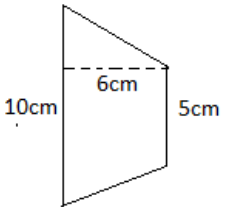
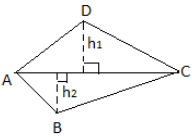
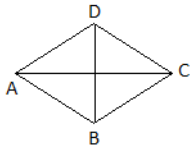
Chapter:- 11- MENSURATION -

No. of periods:- 10

Date of Commencement: -

Expected date of completion: -

Actual date of Completion:-

Gist Of The lesson	Targeted learning outcomes (TLO)	Teaching learning activities planned for achieving the TLO using suitable resources and classroom management strategies	ASSESSMENT STRATEGIES PLANNED
Focused skills/Competencies			
INTRODUCTION Area and perimeter of rectangle, square, circle, parallelogram and triangle.	The students should be able to know the formula for the area and perimeter of various figures and how to apply in different situations.	Recollect the following formulae and practice more problems related. Area of rectangle = $l \times b$, Perimeter = $2(l + b)$ Area of square = a^2 , Perimeter = $4a$ Area of triangle = $\frac{1}{2}bh$, Area of parallelogram = bh Area of circle = πr^2 , Perimeter = $2\pi r$	1-By asking oral question. 2- Home work 3- By solving questions on black board. 4- Class test
AREA OF TRAPEZIUM	To identify the shape of a trapezium and how to find the area using the formula.	 $\text{Area of trapezium} = \frac{1}{2}(a + b)h$ $= \frac{1}{2}(\text{sum of parallel sides}) \text{distance between them}$  $\text{Area} = \frac{1}{2}(10 + 5)6 = \frac{1}{2} \times 15 \times 6 = 45\text{cm}^2$	H/W (Qns from exercises) Oral test Class test-1 Assignments Dictation
AREA OF QUADRILATERALS AREA OF RHOMBUS	To know the formula and its application .	 $\text{Area of quadrilateral} = \frac{1}{2}AC(h_1 + h_2)$  $\text{Area of rhombus} = AC \times BD = \text{Product of the diagonals.}$ Do the examples from the text book.	H/W (Qns from exercises) Oral test Class test-2
AREA OF POLYGONS	To know how to split the given polygon into different plane figures whose area can be calculated.	Divide the given polygon into a number of shapes like triangles, rectangles ,trapeziumetc and find the area of each figure and then find the total area. Give more eggs from the text book.	Assignments

SURFACE AREA OF CUBOID AND CUBE VOLUME OF CUBE AND CUBOID	To understand the formula for finding the surface area of a cuboid = $2(lb+lh+bh)$ and surface area of a cube = $6a^2$ Volume = a^3	base area = $lb+lb$ = $2lb$ Area = $2lh+2bh$ $= 2(l+b)h$ = perimeter of base $\times$ height Total Surface Area (TSA) = $2lb+2lh+2bh$ = $2(lb+lh+bh)$ Volume = base area $\times$ height = lbh Make the children understand how to use the formula to find the area and volume by demonstrating different problems. <u>CUBE</u> Total base area = $2a^2$, L S A = $4a^2$, T S A = $6a^2$, Volume of a cube = a^3	
SURFACE AREA AND VOLUME OF A CYLINDER	To understand the formula for finding the total surface area = $2\pi r(r + h)$ Volume = $\pi r^2 h$ Volume of cylinder = base area $\times$ height = $\pi r^2 h$	Total base area = $2\pi r^2$ area = $2\pi r h$ Total base area = $2\pi r^2$, CSA = $2\pi r h$, T S A = $2\pi r^2 + 2\pi r h = 2\pi r(r + h)$	LAT

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Class/Section:-VIII

Subject:-MATHS

Chapter: - 13-DIRECT AND INVERSE PROPORTION

No. of periods:-5

Date of Commencement: -

Expected date of completion: -

Actual date of Completion:-

Gist Of The lesson	Targeted learning outcomes (TLO)	Teaching learning activities planned for achieving the TLO using suitable resources and classroom management strategies	ASSESSMENT STRATEGIES PLANNED						
Focused skills/Competencies									
DIRECT PROPORTION	The children should be able to verify whether the given quantities are in direct proportion	Two quantities which are varying in the same direction (either increasing or decreasing) together in such a way that the ratio of the quantities are in the same ratio, are said to be in the direct proportion. If x and y are given quantities in direct proportion then $\frac{x}{y}$ is constant at any stage. The direct proportion is represented by $x \propto y$ Egs. A machine in a soft drink factory fills 840 bottles in six hours. How many bottles will it fill in five hours. <table><tr><td>No. of bottles</td><td>840</td><td>x</td></tr><tr><td>Time (hrs)</td><td>6</td><td>5</td></tr></table> $\frac{840}{6} = \frac{x}{5}$ $x = \frac{840 \times 5}{6} = 700$. Practice more problems.	No. of bottles	840	x	Time (hrs)	6	5	1-By asking oral question. 2- Home work 3- By solving questions on black board. 4- Class test H/W (Qns from exercises) Oral test
No. of bottles	840	x							
Time (hrs)	6	5							
INDIRECT PROPORTION	They should be able distinguish between the direct and indirect proportion.	Tow quantities which are varying in the opposite direction (one is increasing and one is decreasing) in such a way that the product of them is a constant at any stage are said to be in inverse proportion. If x and y are in the inverse proportion then $x \times y$ is a constant. It is represented by the symbol $x \propto \frac{1}{y}$. Egs. A farmer has enough food to feed 20 animals in his cattle for 6 days. How long would the food last if there were 10 more animals in his cattle. <table><tr><td>No. of days</td><td>6</td><td>x</td></tr><tr><td>No. of animals</td><td>20</td><td>30</td></tr></table> $6 \times 20 = x \times 30$ $x = \frac{6 \times 20}{30} = 4$ Do more problems from the text book to make understand.	No. of days	6	x	No. of animals	20	30	Class test Assignments Dictation
No. of days	6	x							
No. of animals	20	30							

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