Mathematics - (041)

Movers 3

Book Name – Learning Mathematics
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Unit Test-I

Activity	Name	Teaching Strategy	Learning outcome	Weightage
Pen paper test	Ch-11 Linear Equations in one variable Ch-12 Understanding Quadrilateral	-Teaching with cases, Problem based learning Critical Thinking	To develop simple patterns using constants and variables- algebraic expressions and equations and use them in prediction - To introduce students to particular quadrilaterals and their specific characteristics	10 Marks

Copy Assessment (5 Marks)
Practical Lab. Work (5 Marks)
Half Yearly

Chapters	Teaching Strategy	Learning outcome	Weightage
Ch-1 Rational Numbers Ch- 2 : Exponents and Powers Ch- 3 Square and Square roots Ch-4 Cube and Cube roots Ch-8 Direct and Inverse Variation(Ex 8.1,8.2 only) Ch-14 Visualizing Solid Shapes Ch-16 Data Handling	-Critical Thinking -Accelerated learning -Discussion Strategies -Active learning -Problem based Learning Games /Experiments/Simulations -Project based Learning	-To develop number sense and application of number theory concepts -To develop the understanding that squaring is the inverse of square rooting -To develop understanding that cubing is the inverse of cube rooting -To develop/ enhance rate, ratio and proportional reasoning -Helps to know positional change of 2 D shapes on the environment will develop spatial sense -To develop understanding to solve problems involving the collection, display and analysis of data	80 Marks

Half Yearly will include Ch- 1, 2,3, 4, 8(Ex 8.1,8.2 only), 11, 12,14, 16

Unit Test-II

Activity	Name	Teaching Strategy	Learning outcome	Weightage
Pen paper test	Ch-9 Algebraic Expressions and Identities Ch- 10 Factorization	-Critical Thinking -Critical Thinking	-Helps to rearrange formulas to highlight a quantity of interest using the same reasoning as in solving equations -To identify common factors in an algebraic expression	10 Marks

Copy Assessment (5 Marks)
Practical Lab. Work (5 Marks)
Yearly

Chapters	Teaching Strategy	Learning outcome	Weightage
Ch – 5 Playing with numbers Ch- 6 Percentage and its applications Ch-7 Compound Interest Ch-8 Direct and Inverse Variation (Ex 8.3 only) Ch-13 Practical Geometry Ch-15 Mensuration Ch- 17 Introduction to Graphs	-Games/Experiments/ Simulations -Ability Based Learning -Active Learning - Games/Experiments/ Simulations -Problem Based Learning -Teaching with cases - Accelerated Learning	-To create the ability to find factors and multiples of a number. To calculate percentages -To develop understanding to translate real world problems into proportions involving percent -To develop the concept of construction of quadrilaterals -To cater the concept of area/perimeter of plane figures and volume/Total surface area of few 3-D shapes -To cater the concept of Cartesian plane, axes, plotting points and graphical solutions	80 Marks

<u>Yearly Exam will include Ch –1, 5, 6, 7, 8,9, 10,11,13, 15, 17</u>

Activities to be conducted during the session:

- ✓ Fold a paper in any way. Unfold and locate various convex and concave polygons.
- ✓ To verify that the sum of interior angles of a quadrilateral is $360^0$by paper cutting and pasting.
- ✓ To verify that the sum of measures of the exterior angles of any polygon is $360^0$by paper cutting and pasting.
- ✓ (a) To make a kite and a rhombus by paper folding and cutting.

- ✓ To verify that
  (a) Diagonals of a rectangle are of equal length
  (b) Diagonals of a square are of equal length
- ✓ To make a die using the given net of a cube and observe the outcomes of 1,2,3,4,5,6, appearing on its top face when this die is tossed 20 times.
- ✓ To verify the formula $(a+b)^2 = a^2+b^2+2ab$ by activity method
- ✓ To derive the formula for the total surface area of a cuboid.
- ✓ To make cubes and cuboids of given dimensions using unit cubes and to calculate volume of each :
  (a) 5*4*3 (b) 3*3*3