

Annual Syllabus

Class-VII (2023-24)

Subject: Mathematics

Chapter Name	Content	Learning Outcomes	Suggested Activities
Chapter-1 Integers	<p>CLASS V: Comparing numbers, big number in practice and outcome in number situation. (Use Worksheet No. 9)</p> <p>CLASS VI: Representation of integers on number line, Addition and subtraction of integers (Use Worksheet No. 3,4,5,9,10)</p> <p>CLASS VII: Multiplication of integers, Properties of multiplication of integers, division of integers, properties of division of integers. (Use Worksheet No. 1,5,6,7,8)</p>	<p>The learner will be able to:</p> <ul style="list-style-type: none"> • multiply and divide two integers. • solve problems involving the multiplication and division of integers in daily life. 	<ul style="list-style-type: none"> • To locate the integers on number line • To multiply the integers on number line • To fill the right integers in the given figure • To find the right key of the doors • To write the appropriate integers in the figure of square • Arrows matching
Chapter-3 Data Handling	<p>CLASS V:Tally Marks, Reading of Bar Graph and line graph</p> <p>CLASS VII: Representative values, use of bar graphs with a different purpose. (Use Worksheet No. 23,24,25,26)</p>	<p>The learner will be able to:</p> <ul style="list-style-type: none"> • Interpret data using bar graph such as consumption of electricity is more in winter or summer. 	<ul style="list-style-type: none"> • Activity based on the conveyance used by the students. • Role play • run scored by team in first 10 overs etc.
Chapter-5 Lines and Angles	<p>CLASS V: Meaning of line and angle, Angles less than 90°, More than 90°, Straight angles, Types of Polygons (Use Worksheet No. 96,97,100,103,106)</p> <p>CLASS VI: Type of lines parallel and perpendicular, Types of angles- Acute angle, Obtuse angle, Straight angle</p>	<p>The learner will be able to:</p> <ul style="list-style-type: none"> • classify pairs of angles based on their properties as linear, supplementary, complementary, adjacent and vertically opposite 	<ul style="list-style-type: none"> • Searching examples of angles around us. • Role play on recognition of angles and names of angles.

	and Reflex angle (Use Worksheet No. 24,27,28,29) CLASS VII: Introduction, related angles, pair of lines, checking for parallel lines. (Use Worksheet No. 14,15)	<ul style="list-style-type: none"> find the value of the one angle when the other angle is given. 	<ul style="list-style-type: none"> Activities described in Pragati Book
Chapter-9 Perimeter and Area	CLASS V: How many squares?, Area and its boundary (Use Worksheet No. 110,115,118,124,127,132) CLASS VII: Area of parallelograms, Area of triangles, Area of circle (Use Worksheet No. 3)	The learner will be able to: <ul style="list-style-type: none"> find out approximate area of closed shapes by using unit square grid and graph sheet. calculate area of the region enclosed in a rectangle, square, triangle. 	<ul style="list-style-type: none"> In the given grid make rectangles of different sizes but same in area. Using method of cutting and pasting of paper find the area of parallelogram. Finding Circumference with the help of thread.
Chapter -12 Symmetry	CLASS V: Do you see the pattern? Does it look the same? (Use Worksheet No. 84) CLASS VI: Halves and quarters, Play with patterns CLASS VII: Introduction, Lines of symmetry for regular polygons, Rotational Symmetry, Line Symmetry and Rotational Symmetry	The learner will be able to: <ul style="list-style-type: none"> identify symmetrical figures from their environment differentiate between Line Symmetry and Rotational Symmetry visualize and draw the mirror image visualize the symmetry through paper folding activity 	Conversation on the idea of symmetry: Artists, professionals, designers of clothing or jewellery..... <ul style="list-style-type: none"> Punching game Copy the diagram about the mirror lines. Collect and write examples of rotational symmetry from real life.
<p>➤ The above syllabus is to be completed for Mid-Term Examination by 15th September, 2023.</p> <p>➤ Mental Math & Math Lab Activities</p> <p>➤ Revision of syllabus for term examination</p>			
MID TERM EXAMINATION			
Chapter-2 Fraction and Decimals	CLASS V: Equivalent fractions, mixed fractions without using terms, Tenths, Hundredths. (Use Worksheet No. 130,135,141,143) CLASS VI: Proper and improper fractions, representation of fractions on number line, Addition and Subtraction of fractions, Addition and Subtraction of decimals, comparing decimals (Use Worksheet No.18,19,20,21)	The learner will be able to: <ul style="list-style-type: none"> interpret the division and multiplication of fractions. apply algorithms to multiply and divide fractions and decimals. solve problems related to fractions and decimals in daily life. 	<ul style="list-style-type: none"> Introduction using daily life examples. Colouring/shading equal parts Work on decimals with the help of Dienes blocks and graph paper.

	CLASS VII: Multiplication of fractions, Division of fractions, Multiplication of decimal numbers, division of decimal numbers.(Use Worksheet No. 10,11,12,13)		
Chapter-6 The triangle and its properties	CLASS V: Triangle shape CLASS VI: Triangle in basic geometrical concepts (Use Worksheet No. 110) CLASS VII: Introduction, Medians of a triangle, altitudes of a triangle, Exterior angle of a triangle and its property, angle sum property of a triangle, equilateral and isosceles triangle, sum of the lengths of two sides of a triangle, right angled triangles and Pythagoras property. (Use Worksheet No. 27,28,29,30)	The learner will be able to: <ul style="list-style-type: none"> differentiate between median and altitude relate exterior angle of a triangle with its interior angle . find unknown angles of a triangle when its two angles are known. apply the Pythagoras theorem 	<ul style="list-style-type: none"> Colouring activity to visualization of interior and exterior parts of a triangle. Role play to understand triangle and its parts Drawing different types of triangles on dot paper. Paper folding activity Making triangles from sticks.
Chapter-7 Comparing Quantities	CLASS V: How big How heavy,comparing lengths and weights CLASS VII: Percentage-another way of comparing quantities, use of percentages, prices related to an item or buying and selling, charge given on borrowed money or simple interest. (Use Worksheet No. 31,32,33,34,35)	The learner will be able to: <ul style="list-style-type: none"> solve problems related to conversion of percentage to fraction and decimal and vice versa. calculate profit/loss percent and rate percent. 	<ul style="list-style-type: none"> Conversation between friends (Role play) to understand profit loss, % and interest.
Chapter-10 Algebraic Expressions	CLASS VII: Introduction, How are expressions formed?, Terms of an expression, like and unlike terms, monomial, binomial, trinomial, polynomial, finding the value of an expression.	The learner will be able to: <ul style="list-style-type: none"> identify terms of expressions classify different expressions add and subtract algebraic expressions. 	(Pragati) <ul style="list-style-type: none"> Shyana and Bob conversation- role play in the introduction. Factor tree.
Chapter-11 Exponents and Powers	CLASS V: Multiples and Factors Class VII: Introduction, exponents, laws of exponents, miscellaneous examples using the laws of exponents, decimal number system, expressing large numbers in the standard form. (Use Worksheet No. 16,17,18)	The learner will be able to: <ul style="list-style-type: none"> simplify problems involving multiplication and division of large numbers by using exponential form of numbers. 	Pragati <ul style="list-style-type: none"> Conversation between Yogesh and Kavita Is your secret intact?

Chapter-13 Visualizing Solid Shapes	CLASS V: Basic geometrical shapes CLASS VI: 2D and 3D shapes CLASS VII: Introduction, plane figures and solids figures, faces, edges and vertices, nets for building 3D shapes, drawing solids on a flat surface, viewing different sections of a solid (Use Worksheet No. 21,22)	The learner will be able to: <ul style="list-style-type: none"> • visualize solid shapes and can draw their nets • recognize and draw the top, front and side views of 3D objects. 	(NCERT) <ul style="list-style-type: none"> • Nets for 3-D figures. • To draw solid shapes on graph paper. • Oblique and isometric sketches.
<p>➤ The whole syllabus is to be completed for Annual Examination by 31st January, 2024.</p> <p>➤ Mental Math & Math Lab Activities</p> <p>➤ Revision of syllabus for Annual Examination</p>			
<h2>ANNUAL EXAMINATION</h2>			
<p>Note: The above said syllabus is for assessment purpose only and remaining topics/chapters may be taught as Subject Learning Enrichment.</p>			