

Term – Wise Syllabus
Session-2019 -20
Class-VII
Subject: Mathematics (Nishtha)

Term-I (April 2019 to September 2019)

Chapter Name	Content	Learning Outcomes	Suggested Activities
Chapter-1 Integers	Introduction, recall, properties of addition and subtraction of integers, multiplication of integers, properties of multiplication of integers , division of integers, properties of integers.	The learner: <ul style="list-style-type: none"> • Solves problem involving additions and subtraction of integers and daily life. Situations involving addition and subtraction. • Multiplies and divides two integers. 	Pragati <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-2 Fraction and Decimals	Introduction, How well you have learnt about fractions? (Proper fraction, improper fraction, mixed fraction, equivalent fraction), Multiplication of fractions, Division of fractions, How well you have learnt about decimal numbers? Multiplication of decimal numbers, division of decimal numbers.	The learner: <ul style="list-style-type: none"> • Interprets the division and multiplication of fractions. • $\frac{2}{3} \times \frac{4}{5}$ or $\frac{2}{3}$ of $\frac{4}{5}$ and $\frac{1}{2} \div \frac{1}{4}$ can also be written as how many $\frac{1}{2}$ make $\frac{1}{4}$. • Uses algorithms to multiply and divide fractions and decimals. • Can solve the problems related to fraction and decimals in real life. 	Pragati <ul style="list-style-type: none"> • Introduction using daily life examples. • Coloring/shading equal parts

Chapter-3 Data Handling	Introduction, collecting data, organization of data, representative values, arithmetic mean, mode, median, use of bar graphs with a different purpose, chance and probability.	The learner: <ul style="list-style-type: none"> • Interprets data using bar graph such as consumption of electricity is more in winter or summer. Runs scored by team in first 10 over etc. 	Pragati <ul style="list-style-type: none"> • Activity based on the conveyance used by the students. • Role play
Chapter-5 Lines and Angles	Introduction, related angles, pair of lines, checking for parallel lines.	The learner: <ul style="list-style-type: none"> • Classifies pairs of angles based on their properties as linear, supplementary, complementary, adjacent and vertically opposite and finds the value of the one angle when the value of other is given in these pairs. 	Pragati <ul style="list-style-type: none"> • Searching examples of angles around us. • Role play on recognition of angles and names of angles.
Chapter - 6 The triangle and its properties	Introduction, Medians of a triangle, altitudes of a triangle, Exterior angle of a triangle and its property, two special triangle and their properties, 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.	The learner: <ul style="list-style-type: none"> • Finds unknown angles of a triangle when its two angles are known. 	Pragati <ul style="list-style-type: none"> • Coloring activity for visualization of the 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-15 Visualizing Solid Shapes	Introduction, Visualizing plane figures, solid shapes and solid objects, viewing different sections of a solid, looking at it from certain angles to get different views, nets for building 3D shapes. Plane figures and solid shapes, faces, edges and vertices, drawing solids on a flat surface. Note: As per SCERT guidelines, content not to be taught is complete chapter except sub-section 15.4.3 and section	The learner: <ul style="list-style-type: none"> • Visualizes solid shapes and can draw their nets. 	(NCERT) <ul style="list-style-type: none"> • Nets for 3-D figures. • To draw solid shapes on graph paper. • Oblique and isometric sketches.

15.5.

Mental Maths, Maths Lab Activities & YUVA sessions
Revision of syllabus for Mid Term Exam

Term-II (October 2019 to March 2020)

Chapter Name	Content	Learning Outcomes	Suggested Activities
Chapter-7 Congruence of Triangles	Introduction, Congruence of plane figures, Congruence among line segments, congruence of angles, congruence of triangles, criteria for congruence of triangles, congruence among right angled triangles.	The learner: <ul style="list-style-type: none"> • Explains congruency of triangles on the basis of the information given about SSS, SAS, ASA, and RHS. 	Pragati <ul style="list-style-type: none"> • Role play • Teacher and Rani. • Pictorial activity –let’s find similar. • Do you know? • Activity with straw • Role play: conversation among friends.
Chapter-8 Comparing Quantities	Introduction, Equivalent ratios, 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.	The learner: <ul style="list-style-type: none"> • Solves problems related to conversation of percentage to fraction and decimal and vice versa. • Calculates profit/loss percent and rate percent. 	Pragati <ul style="list-style-type: none"> • Conversation between friends • Role play to understand profit loss, % and interest.
Chapter-10 Practical Geometry	Introduction, construction of a line parallel to a given line through a point not on the line. Construction of triangles, Constructing a triangle when the lengths of its three sides are known (SSS Criterion), constructing a triangle when the lengths of two sides and the measure of the angle between them are known (SAS criterion), constructing a triangle when the measure of two of its angles and the length of the side included between them is given (ASA criterion), constructing a right-angled triangle when the	The learner: <ul style="list-style-type: none"> • Using ruler and a pair of compasses, Constructs a line parallel to a given line from a point outside it and triangle. 	Pragati <ul style="list-style-type: none"> • Activity- pictures made by Aman: cycle, house and car.

	length of one leg and its hypotenuse are given (RHS criterion).		
Chapter-11 Perimeter and Area	Introduction, area of square, rectangles and parallelogram, area of a triangle, circle, conversion of units, application.	The learner: <ul style="list-style-type: none"> • Finds out approximate area of closed shapes by using unit square grid graph sheet. • Calculates area of the region enclosed in a rectangle and a square on graph paper. 	Pragati <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. • Circumference of circle with the help of thread.
Chapter-12 Algebraic Expressions	Introduction, How are expressions formed?, terms of an Expression, like and unlike terms, Monomials, Binomials, Trinomials and Polynomials, addition and subtraction of algebraic expressions, finding the value of an expression, using algebraic expression- formulas and rules.	The learner: <ul style="list-style-type: none"> • Adds and subtracts algebraic expressions. 	Pragati <ul style="list-style-type: none"> • Shyana and bob conversation. • Polynomial tree. • Conversation between Anuja and Teacher. • Balancing the equation.
Chapter-13 Exponents and Powers	Introduction, exponents, laws of exponents, miscellaneous examples using the laws of exponents, decimal number system, expressing large numbers in the standard form.	The learner: <ul style="list-style-type: none"> • Uses exponential form of numbers to simplify problems involving multiplication and division of large numbers. 	Pragati <ul style="list-style-type: none"> • Conversation between Yogesh and Kavita • Do your secret is intact?

Following content of term-1 to be repeated and evaluated in term II

Fraction and Decimals: Introduction, How well you have learnt about fractions? Multiplication of fractions, Division of fractions, How well you have learnt about decimal numbers? Multiplication of decimal numbers, division of decimal numbers.

Mental Maths, Maths Lab Activities & YUVA sessions
Syllabus to be completed by the last week of January 2020
Revision of Syllabus for Common Annual School Examination