The Orchid School
Baner
Syllabus Overview 2015- 2016
Std VII
Subject : Maths

Month	Lesson / Content / Name of the Book	Expected Learning Objective	Activities/FAs Planned
MARCH -APRIL	Integers Addition,Subtraction and Multiplication of Integers	The students will know the basic rules and be able to solve integers based on these properties.	Activity to derive the integers Exercise questions
	Integers Division of Integers; Absolute Value Properties of Integers Properties of Addition Properties of Subtraction	The students will know the specific properties of integers and use them to solve exercise questions.	Exercise questions
	Properties of Integers Properties of Multiplication Properties of Division	The students will know the specific properties of integers and use them to solve exercise questions.	Exercise questions
	Data Handling Range; Mean; Mode; Median Data Handling: Frequency Table Bar Graph	All students will be able state and use the formula to calculate the Mean, Mode and Median The students will be able to use the frequency table to prepare bar graph and interpret data on a given bar graph	FA1 Test 1 Birthday day graph of students of Grade VII as per the months and gender.

JUNE	Fraction and Decimals Identify Fractions and Decimals	To be able to understand fractions and decials in daily life and use them appropriately	Exercise questions
	Fractions and Decimals Multiplication of Fractions and Decimals	To be able to multiply the fractions and decimals.	FA1 Test 2 100 colured boxes pattern to depict fractions and decimals
	Fractions and Decimals Division of Fractions and Decimals	To be able to divide the fractions and decimals. To be able to solve word problems based on Fractions and Decimals	Exercise questions
	Revision Fractions and Decimals Mixed Operations in Fractions	To be able to solve word problems based on Fractions and Decimals	Exercise questions
FA 1			
	Lines and Angles Introduction of special angles: complementary, supplementary, adjacent, linear pair and vertically opposite angles	To be able to identify the different types of angles. To use the knowledge to solve sums based on it.	Exercise Questions
	Lines and Angles Angles formed by a transversal Properties of Parallel Lines cut by a transversal	To be able to identify the angles formed in a pair of parallel lines when cut by a transversal. To be able to derive the property of parallel lines and its converse when cut by a transversal	Activity based on the topic Exercise Questions

JULY	Properties of Triangles Median, Altitude, Interior and Exterior of triangle Angle sum property Exterior Angle Property Sum of two sides of a triangle	To be able to identify the different parts of a triangle. To be able to prove the angle sum property, Exterior Angle property and Sum of two sides of a triangle property	Exercise questions
	Properties of Triangles Pythagoras Theorem	All students will state and apply the Pythagoras theorem while solving problems	Research on Pythagoras and his work in the filed of Mathematics; Exercise questions
	Properties of Triangles Chapter Check Up	To be able to solve problems based on properties of triangles	Exercise questions
AUG	Congruence of Triangles Introduction to congruency Conditions of Congruency	Students will be able to identify congruent shapes. Students will apply the conditions of congruency to analyse under which test are the triangles congruent.	Activity based on the topic/ Exercise questions
	Ratio and Proportion Introduction to Ratio Simplest form of ratio Application of ratios in word problems Proportion Unitary Method	All students will be able to convert a ratio in its simplest form and apply it while solving word problems. All students will be able to state proportion as equivalence of two ratios and use this principle in solving many mathematical problems. Students will use the unitary method for solving problems.	Exercise questions Worksheet
	Percentage & its applications Convert fractions, decimals and ratio into% and vice versa To find % of a given qty To express qty as a % of another. To find the whole using given %	The students will be able to calculate percentages and apply the concept of conversion for the same.	Exercise questions

	Percentage & its applications Profit and Loss Simple Interest	Students will be able to solve problems based on profit and loss and simple interest	Exercise Questions
FA 2			
SEPT	Practical Geometry Construction of parallel lines Construction of triangles based on SSS and SAS criterion	Students will be able to construct accurate parallel lines and triangles based on the criteria given.	Activity based on the topic and Constructions
	Revision of SA1 portion	Students will be able to solve problems based on the topic	Worksheets
	SA1 exams		
	SA1 exams		
	Construction of triangles based on ASA and RHS criteria	Students will be able to construct accurate triangles based on the criteria given.	Activity based on the topic and Constructions

SA 1			
OCT	Perimeter and Area Perimeter of rectangle, square Area of rectangle Area of square	Students will be able to derive the perimeter / area as the case may be based on data given	Activity based on the topic/ Exercise questions
	Perimeter and Area Area of triangle Area of parallelogram Area between two rectangles	Students will be able to derive the area based on data given	Activity based on the topic/ Exercise questions
	Perimeter and Area Circle; parts of a circle and area of circle	Students will be able to derive the area based on data given	Activity based on the topic/ Exercise questions
	Perimeter and Area Chapter check up	Students will be able to derive the area based on data given	Activity based on the topic/ Exercise questions
NOV	Algebraic Expressions Generating algebraic expressions Terms of an algebraic expression Types of Algebraic Expression	Students will be able to develop alg. Expressions. Students can identify the terms of an expression. Students can identify the types of algebraic expression.	Activity based on the topic/ Exercise questions
	Algebraic Expressions Constants, Co-efficients and Powers Like and Unlike Terms Addition of Alg. Expressions	Students can identify the constants, co-efficients and powers. Students can add the like terms in an expression.	Activity based on the topic/ Exercise questions

	Algebraic Expressions Subtraction of alg Exp Removal of brackets Degree of a polynomial Value of an algebraic expression	Students can subtract the like terms in an expression. Students can remove brackets to solve expressions. Students can state the degree of a given polynomial.	Activity based on the topic/ Exercise questions
FA 3			
DEC	Rational Numbers Fractions to rational numbers. Plotting rational nos on a number line. Equivalent rational number	The studetns can convert fractions into rational numbers. Students can plot the rational numbers on a number line and identify equicvalent rational numbers	Activity based on the topic/ Exercise questions
	Revision Week	Students can solve sum based on the portion	Worksheets
	Rational Numbers Property of cross products Comparison of rational nos Absolute value of a rational number	The studetns can apply the property of cross products to ascertain rational numbers.	Activity based on the topic/ Exercise questions
	Rational Numbers Addtion and subtraction of rational numbers Multiplication and Division of rational numbers	Students can add and subtract rational numbers Students can multiply and divide rational numbers.	Activity based on the topic/ Exercise questions

JAN	Rational Numbers Rational numbers as decimal numbers Word Problems	Students can convert rational numbers into decimals.	Activity based on the topic/ Exercise questions
	Representing 3D in 2 D Introduction Faces, Edges and vertices	Studentswill be able to recognise the three dimensional solids from pictures drawn on two dimensional paper.	Activity based on the topic
	Representing 3 d in 2D Visual Estimation of Solids Drawing shapes Viewing solids from different angles	Students will be able to construct three dimensional solids after drawing their nets and cutting and folding them. Students will be able to draw the common solids shapes viewed from the top, front, side and at oblique angle.	Activity based on the topic/ Exercise questions
	Powers and Exponents Exponents Exponents on the rational numbers Conversional into power notation	The students will be able to define and explaint with examples the meaning of exponents	Exercise questions
FA 4			
FEB	Powers and Exponents Laws of exponents - I, II, III	The students will be able to state and apply the laws of exponents in given problems	Exercise questions
	Powers and Exponents Laws of exponents -Iv, V, VI	The students will be able to state and apply the laws of exponents in given problems	Exercise questions
	Powers and Exponents Scientific Notation	The students will be able to express very large and very small numbers using scientific notation	Exercise questions

	Simple Linear Equations Introduction of simple linear equations Balancing of an equation	The students will be able to illustrate with examples the meaning of equations. The students will be able to state the necessary conditions for keeping an equation balanced.	Activity based on the topic/ Exercise questions
MAR	Simple Linear Equations Transposing Method Root of an equation	The students will be able to state and explaint the mening of root of an equations and verify the truth of equations using theior roots. Students will be able to solve equations to find their roots by balanicing and by tranposing method	Activity based on the topic/ Exercise questions
	Simple Linear Equations Framing algebraic equations to solve problems	Students will be able to frame algeraic equations from given statement sums and solve them.	Activity based on the topic/ Exercise questions
	Revision Begins	Students can solve sum based on the portion	Worksheets
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SA 2			