



MITCON International School

Syllabus (2019-2020)

Grade :VII

Subject: Mathematics

MONTH	STRANDS	TOPICS	SUB-TOPICS
April	Numbers and Operations	Operations on Integers	<ul style="list-style-type: none"> • Comparing and Ordering Integers • Adding and Subtracting Integers • Multiplying Integers • Absolute Value of Integers • Integers : Story Problems • Application of Integers
April		Properties of Integers	<ul style="list-style-type: none"> • Closure and Commutative Properties • Associative Property • Properties for Multiplication • Application of Integers • Multiplicative Identity
April		Dividing Integers	<ul style="list-style-type: none"> • Associative and Distributive Property • Dividing Integers • Properties of Division • Application of Properties • Inverse Operation
June	Fractions and Decimals	Multiplying Fractions	<ul style="list-style-type: none"> • Types of Fractions • Adding and Subtracting Fractions • Fractions X Whole Numbers • Fractions X Fractions • Fraction Story Problems
June		Dividing Fractions	<ul style="list-style-type: none"> • Dividing Fractions and whole Numbers • Dividing Fractions by Fractions • Dividing Mixed Fractions • Multiple Operations • Multiplicative Inverse
June		Multiplying Decimals	<ul style="list-style-type: none"> • Adding and Subtracting Decimals • Rules for multiplying decimals • Multiplying by 10, 100, 1000 • Multi-Step Story Problems • Like decimals and Unlike decimals

July		Dividing Decimals	<ul style="list-style-type: none"> • Dividing by 10, 100, 1000 • Dividing by a Whole Number • Dividing by a Decimal Number • Dividing with a Remainder • Decimal Division
July	Data Handling and Probability	Central Tendencies	<ul style="list-style-type: none"> • Data Organisation • Central Tendency • Mean • Mode • Median • Solving Problems
July		Bar Graphs and Probability	<ul style="list-style-type: none"> • Bar Graph • Double Bar Graph • Chance and Probability
July	Algebra	Solving Equations	<ul style="list-style-type: none"> • Balance and Equations • Transposing Method • Framing Equations • Word Problems
July	Geometry	Angle Pairs	<ul style="list-style-type: none"> • Lines and Angles • Pairs of Angles • Vertically Opposite Angles • Proof: Vertically Opposite Angles
August	Geometry	Parallel Lines and Transversal	<ul style="list-style-type: none"> • Constructing Parallel Lines • Transversal: Parallel Lines • Transversal: Angle Pairs • Transversal: Non-parallel Lines • Supplementary Angles
August	Geometry	Properties of Triangles	<ul style="list-style-type: none"> • Altitudes and Medians • Angle Sum Property • Exterior Angle Property • Angles of Triangles
August	Ratio and Proportion	Ratios and Unitary Method	<ul style="list-style-type: none"> • Ratios in Simplest Form • Equivalent Ratios • Unitary Method • Story Problems • Problem Solving
August	Ratio and Proportion	Percentage	<ul style="list-style-type: none"> • Introduction to Percentage • Fraction to Percentage • Decimals to Percentage • Percentages to Fractions or Decimals • Ratio to Percentage

			<ul style="list-style-type: none"> • Problem Solving
October	Ratio and Proportion	Profit & Loss and Simple Interest	<ul style="list-style-type: none"> • Profit and Loss Percent • Cost Price and Selling Price • Simple Interest • Solving Problems
October	Geometry	Pythagoras' Theorem	<ul style="list-style-type: none"> • Side Sum Property • Right-Angled Triangles • Proof: Pythagoras' Theorem • Solving Problems
October	Geometry	Congruence of Triangles	<ul style="list-style-type: none"> • Congruency • Congruency by SSS and SAS Rule • Congruency by ASA and RHS Rule • Triangle Congruency
November	Numbers and Operations	Introduction to Rational Numbers	<ul style="list-style-type: none"> • Rational Numbers • Rational Numbers on a Number Line • Finding Rational Numbers • Comparing and Ordering Rational Numbers
November		Adding and Subtracting Rational Numbers	<ul style="list-style-type: none"> • Adding Rational Numbers • Subtracting Rational Numbers • Rational Numbers: Story Problems • Additive Inverse
November		Multiplying and Dividing Rational Numbers	<ul style="list-style-type: none"> • Multiplying Rational Numbers • Dividing Rational Numbers • Rational Numbers : Word Problems
November	Geometry	Construction of Triangles	<ul style="list-style-type: none"> • Construction: SSS Rule • Construction: SAS Rule • Construction: ASA Rule • Construction: RHS Rule
December	Measurement	Perimeter and Area	<ul style="list-style-type: none"> • Perimeter and Area : Rectangle and Square • Area of Right Triangles • Area of Parallelograms • Area of Triangles • Finding Area of Composite Figures
December		Circle: Circumference and Area	<ul style="list-style-type: none"> • Circumference of a Circle • Area of a Circle • Area of Concentric Circles • Solving Problems

December	Algebra	Algebraic Expressions	<ul style="list-style-type: none"> • Algebraic Expressions • Parts of an Expression • Formulas: Area and Perimeter • Rules for Patterns
January		Adding and Subtracting Expressions	<ul style="list-style-type: none"> • Like and Unlike Terms • Degree of an expression • Add and Subtract Terms • Add and Subtract Expressions • Word Problems
January	Numbers and Operations	Introduction to Exponents	<ul style="list-style-type: none"> • Exponents • Exponential Form • Exponents and Prime Factors
January		Laws of Exponents	<ul style="list-style-type: none"> • Solving Powers with the same Base • Solving Powers with the same Exponents • Power of a Power • Simplifying Exponential Expressions
January	Geometry	Symmetry	<ul style="list-style-type: none"> • Reflection Symmetry • Rotational Symmetry • Angle Of Rotational Symmetry • Reflection and Rotation
January		3-D and 2-D Shapes	<ul style="list-style-type: none"> • Nets • Views of an Object • Representing 3-D shapes • Shadows of 3-D Shapes