The City School



CLASS: 8 SYLLABUS FOR FINAL TERM 2018 SUBJECT: Mathematics

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| S.No | Topic | Learning Objectives | Reference |
| 1. | Graphs | In this unit students will to :   * Plot the points and draw a straight line graph using these points. * Find the unknown values of ‘x’ and ‘y’ from the graph. | Syllabus - D [Book – 1]  Chapter – 12, Ex # 12b Q6,7  Chapter – 8, Ex # 8b & 8c [BK – 2] |
| 2. | Graphs | * Solve the simultaneous linear equations using graphical method. | Chapter – 8, Ex # 8d [BK – 2] |
| 3. | Algebra | * Expand simple algebraic expressions by using perfect squares and difference of two squares. | Syllabus - D [Book – 2]  Chapter – 3, Ex # 3a, 3b, 3c Q1,2,3 |
| 4. | Algebra | * Factorise expressions by taking common and grouping. * Factorise algebraic identities; * Using perfect squares method. * Using difference of two squares method. * Factorise the quadratic expressions by using trial and error method. | Syllabus - D [Book – 1]  Chapter – 5, Ex # 5g, 5h & 5i  Chapter – 3, Ex # 3d, 3e Q1-4,7 Ex# 3f [BK – 2] |
| 5. | Algebra | * Solve quadratic equations. * Solve related word problems. | Chapter – 3, Ex # 3g, 3h [BK – 2] |
| 6. | Algebraic Manipulation | * Simplify algebraic fractions to the lowest term. * Multiply and divide simple algebraic fractions. * Solve equations involving algebraic fractions. | Syllabus - D [Book – 2]  Chapter – 4, Ex # 4a, 4b, 4c, 4d & 4g |
| 7. | Algebraic Manipulation | * Solve problems involving algebraic fractions. * Use skill of solving equations to change the subject of formulae. | Chapter – 4, Ex # 4h Q1-10, Ex# 4i & 4e [Bk – 2] |
| 8. | Algebraic Manipulation  Congruence And Similarity | * Add and subtract the algebraic fractions. * Identify congruent and similar figures. * Use properties of congruent and similar figures. | [Bk – 2] Chapter – 4; Ex# 4f Q1, 2  Chapter – 1; Ex # 1a & 1b |
| 9. | Congruence And Similarity (Scale Drawing)  Perimeter and area | * Use of linear scale in real life situation. * Find map length to actual measurements and vice versa. * Find the area and perimeter of shaded and un-shaded regions in circles and composite shapes. | Chapter – 1; Ex # 1c [Bk - 2]  Chapter – 12; Ex # 12a [Bk - 3] |
| 10. | Perimeter and area (Mensuration)  Time | * Solve problems involving the perimeter and area of a rectangle, triangle, a parallelogram and a trapezium, the circumference and area of a circle. * Extension of word problem involving speed, distance and time. | Chapter – 12; Ex # 12b; Q1 & 2 [Bk - 3]  Chapter#10 [W.B-1} Q64,65,66,67,68,69,70,71,85, 86, 87 & 89 |
| 11. | Angle properties of polygon | * Extend the use of angle properties of parallel lines, intersecting lines and triangles to find unknown angles. * Calculate unknown angles of a given quadrilateral using properties of quadrilaterals. * Identify and the name the figures when their properties are given. | Chapter – 15; Ex # 15b [Bk - 1]  Addendum Ex # 1d [Bk - 1] |
| 12. | Data Handling | * Collect, classify, tabulate and interpret grouped and ungrouped data. * Construct a frequency table of a grouped data. * Draw and interpret histogram representing grouped data. * Find mean, median and mode of a un-grouped data. | Chapter – 13; Ex # 13d & 13e [Bk - 1]  Chapter – 11; Ex # 11b; Q7 – 13, Q14(b, c, d) Q15 – 19 [Bk - 3] |