

The City School

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| **Term 1** |
| **Unit** | **Topic** |
| Variations | • Direct Variation• Inverse Variation |
| Algebraic equations & Fractions | Algebraic representation and formulae Algebraic manipulation |
|  Indices |  Rules of Indices Different types of indices |
| PythagorasTheorem | Pythagoras theorem |
| TrigonometricRatios | • Trigonometric Ratios• Apply the sine, cosine and tangent ratios for acute angles to calculate:o an angleo a sides of a right angle triangle• Practical application oftrigonometry |
| Mensuration (A) | **Length of arc and area of Sector**• area and circumference of a circle• area and perimeter of shaded regions• arc length• area of sector• word problems |
| Mensuration (B) | Volume and surface area of:• a pyramid• a cone• a sphere• compound shapes |

**North Nazimabad Boys Campus**

**Consolidated Syllabus for EOY 2018 - 19**

**Mathematics**

**Class – 9**

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| **Syllabus For MATH Class 9****Class: 9 Subject: Mathematics 4024** |
| **Unit** | **Topic** |
| Personal and small business finance | * **Percentages**
* Discount
* Profit and loss
* Taxation
* Personal and Household finance
* Simple interest& Compound interest
* Hire purchase
* Commission
* Money
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| Solutions of equations and inequalities | * **Solution to quadratic equations**
* Factorization
* Completing the square
* Using the quadratic formula
* Problems involving quadratic equations
* **Linear inequalities in one variable**
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| Coordinate geometry | * Length of segment
* Mid-point
* Gradient of a straight line
* Equation of a straight line
* Equation of parallel lines
* Gradient of parallel and perpendicular lines
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| Symmetry | * Plane and rotational Symmetry
* Planes of symmetry
* Axes of rotational symmetry
* Order of rotational symmetry
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| Similarity and Congruence | * Congruent and similar triangles
* Similarity tests
* Area and volume of similar figures and solids
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| Geometrical constructions | * Scale drawings
 |
| Statistics | * Categorical
* Numerical and
* Grouped data
 |
| Statistical diagrams | * Frequency Polygon
* Histograms with equal and unequal intervals
* scatter diagrams
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