

## SYLLABUS OUTLINE FOR MATHEMATICS CLASS V

Content outline	Periods	Terms
<b>GEOMETRY:</b> <b>Shapes &amp; Spatial understanding:-</b> <ul style="list-style-type: none"> <li>• <b>3 D &amp; 2 D shapes</b> <ul style="list-style-type: none"> <li>- Gets the feels of perspective while drawing a 3D object in 2D</li> <li>- Explores intuitively symmetry in familiar 3D shapes</li> <li>- Makes the shapes of cubes, cylinders and cones using nets especially designed for this purpose.</li> </ul> </li> <li>• <b>Line segment, ray, line</b> <ul style="list-style-type: none"> <li>- Gets the feel of a line through paper folding &amp; observation.</li> <li>- Gets the feel of a ray through observation</li> <li>- Extension of the concept of a line segment &amp; ray to a line</li> <li>- Measuring of line segments</li> <li>- Construction of line segments</li> </ul> </li> <li>• <b>Angles</b> <ul style="list-style-type: none"> <li>- Gets the feels of an angle through observation and paper folding</li> <li>- Identifies right angles in environment</li> <li>- Classifies angles into right, acute and obtuse angles.</li> <li>- Represents right angles, acute angles and obtuse angles by drawing and tracing</li> <li>- Explore vertices and arm of angles</li> <li>- Measure of angles</li> <li>- Construction of angles (using protractor)</li> </ul> </li> <li>• <b>Triangles</b> <ul style="list-style-type: none"> <li>- Observes triangular- shaped objects in the surroundings</li> <li>- Makes triangular- shaped objects with the help of papers</li> <li>- Identifies vertices, sides and angles of triangle</li> <li>- Classify triangles on the basis of sides</li> </ul> </li> <li>• <b>Quadrilaterals</b> <ul style="list-style-type: none"> <li>- Identify through observations, quadrilateral- shaped objects in the surroundings.</li> <li>- Explore geometric figures having 4 sides by random drawing and by paper cutting.</li> <li>- Identifies vertices, sides, angles in quadrilaterals.</li> <li>- Identifies diagonals, adjacent sides and opposite sides of a quadrilateral.</li> </ul> </li> </ul>	<p>8</p> <p>10</p> <p>12</p> <p>3</p> <p>4</p>	<p>I</p> <p>I</p> <p>II</p> <p>II</p> <p>III</p>

<p><b>NUMBERS:</b></p> <ul style="list-style-type: none"> <li>• <b>Numbers &amp; Operations</b> <ul style="list-style-type: none"> <li>- Finds place value in numbers beyond 1000</li> <li>- Appreciates the role of place value in addition, subtraction and multiplication algorithms</li> <li>- Uses informal and standard division algorithms</li> <li>- Explains the meaning of factors and multiples.</li> </ul> </li> <li>• <b>Mental arithmetic</b> <ul style="list-style-type: none"> <li>- Estimates sums, differences, products and quotients and verifies using approximation.</li> </ul> </li> <li>• <b>Fractional numbers</b> <ul style="list-style-type: none"> <li>- Finds the fractional part of a collection</li> <li>- Compares fraction</li> <li>- Identifies equivalent fractions</li> <li>- Estimates the degree of closeness of a fraction to known fraction (<math>\frac{1}{2}</math>, <math>\frac{1}{4}</math>, <math>\frac{3}{4}</math>, etc.)</li> <li>- Uses decimal fractions in the content of units of lengths and money</li> <li>- Expresses a given fraction in decimal notation and vice versa.</li> </ul> </li> </ul>	<p>30</p> <p>-</p> <p>30</p>	<p>I</p> <p>I, II, III.</p> <p>II</p>
<p><b>MONEY</b></p> <ul style="list-style-type: none"> <li>• Applies the four operations in solving problems involving money</li> </ul>	<p>8</p>	<p>II</p>
<p><b>MEASUREMENT</b></p> <ul style="list-style-type: none"> <li>- Determines area &amp; perimeter of simple geometrical figures</li> <li>- Applies the four operations in solving problems involving length, weight and volume.</li> <li>- Rotates commonly used larger and smaller units of length, weight and volume and converts one to the other</li> <li>- Applies simple fractions to quantities</li> <li>- Converts fractional larger unit into complete smaller units.</li> <li>- Appreciates volume of a solid body intuitively and also by informal measurement</li> <li>- Uses addition and subtraction in finding time intervals in simple cases.</li> </ul>	<p>30</p>	<p>III</p>

<b>DATA HANDLING</b> <ul style="list-style-type: none"> <li>- Collects two dimensional quantitative data</li> <li>- Represents the data in the form of a table</li> <li>- Draws a bar graph or a pictograph to present a data.</li> </ul>	10	III
<b>PATTERNS</b> <ul style="list-style-type: none"> <li>- Identifies patterns in square numbers, triangular numbers</li> <li>- Rotates sequences of odd numbers between consecutive square numbers</li> <li>- Makes border strip and fitting patterns.</li> </ul>	10	III