# YEAR 9 MATHEMATICS

| No | Topic | Textbook | CATs |
|----|-------|----------|------|
| 1 | **Area of Shapes and Compound Area**<br>*Understand and use metric units of area; Calculate perimeters and areas of rectangles and squares; Calculate the areas of triangles and parallelograms; Calculate perimeters and areas of compound shapes; Understand the use of square roots; Find missing measurements given the area.* | 1 | **CAT 1 - Homework (Topic 1)** |
| 2 | **Averages from a Frequency Table**<br>*Calculate the three averages (mean, median & mode) from a frequency table; Decide which average is the best to use; Compare different sets of data; Calculate and understand range.* | 1 | **CAT 2 - Homework (Topic 2)** |
| 3 | **Algebra 1 - Equations**<br>*Simplify algebraic expressions; Form equations from written information; Solve equations with x on both sides.* | 1 | **CAT 3 - Test (Topic 3)** |
| 4 | **3D Shapes and Volume**<br>*Draw cubes and cuboids on isometric paper; Draw nets of cubes & cuboids; Understand and use plans and elevations; Calculate volume of cubes & cuboids; Change units of volume.* | 1 | **WINTER EXAM** |
| | **WINTER EXAMINATION (Topics 1 – 4)** | | |
| 5 | **Polygons**<br>*Recognise and name polygons; Understand and use interior and exterior angles; Calculate missing angles in polygons; Understand tessellations.* | 1 | **CAT 4 - Homework (Topic 5)** |
| 6 | **Standard Form, Indices and Significant Figures**<br>*Understand and use index notation and the laws of indices, including zero and negative indices; Change between standard form and ordinary numbers; Round numbers to significant figures & decimal places.* | 2 | **CAT 5 - Test (Topic 6)** |

| 7 | **Fractions – Multiplication and Division**<br>*Multiply whole numbers, fractions and mixed numbers by one another; Divide by a fraction or mixed number; Understand and use the term reciprocal.* | 2 | |
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| 8 | **Probability and Possibility Spaces**<br>*Calculate the probability of an event **not** happening; Draw a possibility space; Use a possibility space to calculate probabilities.* | 2 | **CAT 6 - Test (Topics 7 and 8)** |
| 9 | **Algebra 2 – Expanding Brackets and Solving Equations**<br>*Multiply out brackets, including negative terms; Solve equations involving brackets; Construct and use simple algebraic formulae using brackets.* | 2 | **CAT 7 - Homework (Topic 9)** |
| 10 | **Fractions and Percentages**<br>*Find fraction and percentages of quantities; Write one quantity as a fraction of another; Change between percentages, decimals and fractions; Perform calculations involving percentage change.* | 2 | **CAT 8 - Test (Topic 10)** |
| | **SUMMER EXAMINATION (Topics 1 - 10)** | | |
| 11 | **Data Handling – Scatter Graphs, Two-Way Tables, Flow Charts and Distance Charts**<br>*Draw a scatter graph; Draw a line of best fit and understand what it means; Understand and recognise the different types of correlation; Understand and use two-way tables; Understand and use flow charts; Understand and use distance charts.* | 2 | |