



| Scheme of Learning | Maths<br>Y7 Summer Term<br>Shape and Space                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                        |  |
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| Learning outcomes  | By the end of the Summer Term, you should have knowledge and understanding of areas, volumes, representation of data and straight-line graphs                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                        |  |
| Knowledge          | <p>Key concepts and skills</p> <p>Find lengths and areas of a circle</p> <p>Finding volume and TSA of cuboid</p> <p>Representation of data using frequency polygon, pie charts and bar charts</p> <p>Straight line graphs</p> <p>Pythagoras' Theorem</p> <p>Continue from KS3 overview <a href="#">Contents</a></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <p>Key terminology</p> <p>Circumference</p> <p>Radius</p> <p>Pi</p> <p>Cuboid</p> <p>Frequency table</p> <p>Pie chart</p> <p>Bar chart</p> <p>Quadrants</p> <p>Plotting</p> <p>Pythagoras' Theorem</p> |  |
| Ongoing Assessment | <p>In Maths, the most important assessment takes place in every lesson where teachers observe and support whilst they are practicing applying knowledge and new skills. This assessment enables teachers to tailor their lessons to their class.</p> <p>At a point when teachers know that students are ready, a class will have a skills check in a lesson. These checks are low stakes and help to inform both teachers and students of each individuals next steps. Students are not given warning of these skills checks so that teachers can determine how regularly students are engaging in maths, rather than measure how much work a student has been able to do to prepare for a test.</p> <p><b>Support for revision:</b></p> <p>On SharePoint in the 'Topic Information' folder are overview sheets for each topic. Students can download these sheets from <a href="#">here</a></p> <p>Good ways to revise for the end of unit include:</p> <ul style="list-style-type: none"> <li>• Review their notes,</li> <li>• Use / Review materials from SharePoint</li> <li>• Boost, Target and Independent learning tasks from SparxMaths.</li> </ul> |                                                                                                                                                                                                        |  |
| Key Assessment     | At the end of the summer term students will have a large, announced assessment which covers the key concepts covered to date. The aim of this assessment is for student to develop revision skills.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                        |  |



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|                             | The most valuable part of this assessment is the feedback that students get. The question analysis sheets direct students to additional support using Sparx Codes that link to specific topics and content. Students will identify these areas for support through the feedback lesson set aside for assessment feedback    |                                                                                                                                                         |
| Clear sequencing of content | Geometric measures                                                                                                                                                                                                                                                                                                          | Circumference and area of circles<br>Volume and TSA of a cuboid                                                                                         |
|                             | Data                                                                                                                                                                                                                                                                                                                        | Representation of data in;<br>Frequency table<br>Stem-and-leaf diagrams<br>Pie charts,<br>Bar charts                                                    |
|                             | Graphing                                                                                                                                                                                                                                                                                                                    | Plot graphs of linear functions<br>Identify equations of vertical and horizontal lines<br>Real-life graphs – distance-time graphs and conversion graphs |
|                             | Pythagoras' Theorem                                                                                                                                                                                                                                                                                                         | Finding unknown side of a right-angled triangle<br>Solve problems in context                                                                            |
|                             | Transformations                                                                                                                                                                                                                                                                                                             | Transform 2D shapes using rotation, reflections and translations<br>Identify symmetries of 2D shapes<br>Tessellations                                   |
| Links to Careers            | The overarching skills achieved within Mathematics are integral to numeracy in any career. If students choose to progress from GCSE into A-Level maths, they will begin to see how different types of mathematical application may feed into careers, for example, statistical analysis of data, mechanics and engineering. |                                                                                                                                                         |
| Support                     | SharePoint pages (text based, images and videos)<br>Key Terminology Sheet                                                                                                                                                                                                                                                   |                                                                                                                                                         |
| Challenge                   | Sparx – independent learning challenge sections guide to 'codes'.<br><br>UKMT Junior Maths Challenge with Kangaroo and Olympiad follow-on rounds                                                                                                                                                                            |                                                                                                                                                         |