

**Teaching and Learning Content: Mathematics**  
**Year Group: 10 Foundation**  
**Spring Term – Half Term 4**



<p><b>Topics:</b></p> <ul style="list-style-type: none"> <li>• Volume and Surface Area of Prisms</li> <li>• Ratio, Speen and Proportion</li> </ul>	
<p><b>Home Learning:</b>          Students are expected to complete one piece of home learning every week as well as addressing areas that they have recorded as requiring further attention via their Personal Learning Checklist. The PLC links to corresponding MathsWatch clips and practice questions</p>	
<p><b>Key Questions:</b></p> <ul style="list-style-type: none"> <li>• State the number of edges, faces and vertices in a tetrahedron.</li> <li>• What is the volume and surface area of a cube of length 5cm?</li> <li>• A triangular prism has a volume of <math>100\text{cm}^3</math>. It is 50cm long and has a height of 5cm. What is the length of the base?</li> <li>• Simplify the ratio 4:6 into the form 1:n</li> <li>• £50 is shared into the ratio 2:3, what is the size of the smallest share?</li> <li>• A car travels 100 miles in 2 hours. What is the average speed?</li> <li>• It takes 2 men 3 hours to build a wardrobe, how long will it take the men to build 3 wardrobes.</li> <li>• If 9 pens cost £27, how much would 5 pens cost?</li> </ul>	<p style="text-align: center;"><b>Diagnosis</b></p> <ul style="list-style-type: none"> <li>• 10 question diagnosis tests for each half term</li> <li>• Retrieval activities from knowledge organisers like starter quizzes</li> <li>• Mini whiteboard activities</li> </ul>
	<p style="text-align: center;"><b>Therapy</b></p> <ul style="list-style-type: none"> <li>• Sharing model responses (teacher/student led feedback)</li> <li>• DIRT tasks</li> <li>• Peer to peer support in lessons</li> <li>• Specific highlighted lessons for students</li> </ul>
<p><b>Students will be able:</b></p> <ul style="list-style-type: none"> <li>• Identify and state the properties of 2D shapes</li> <li>• To calculate the volume and surface area of cuboids, other prisms and cylinders.</li> <li>• To simplify ratios, express ratios as fractions and divide into given ratios</li> <li>• To recognise relationships and calculate between speed, distance and time</li> <li>• To recognise and solve problems that involve direct proportion</li> <li>• To find the cost per unit and mass per unit cost.</li> <li>• To find the best value deal</li> </ul>	<p style="text-align: center;"><b>Testing</b></p> <ul style="list-style-type: none"> <li>• Students will complete an assessment each half term from which they will receive a detailed QLA to continue to highlight areas of weakness into the next half term.</li> </ul>