

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



<p><b>Topics:</b></p> <ul style="list-style-type: none"> <li>• Linear Graphs</li> <li>• Solving equations graphically</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>• What is the minimum number of points required to draw a line? Why might it be sensible to plot more points than this?</li> <li>• If the coordinates (-2, 22) and (12, -4) are the endpoints of a line, state the coordinate that is the midpoint.</li> <li>• Give an equation that is parallel to the line <math>y=5x+3</math></li> <li>• A gradient of what, would be perpendicular to a gradient of 5?</li> <li>• What is the gradient and intercept of the line <math>6y-3x=12</math>?</li> <li>• Solve the simultaneous equations <math>y=3x+2</math> and <math>y=6-x</math> graphically.</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><b>Students will be able:</b></p> <ul style="list-style-type: none"> <li>• To be able to draw lines from three points</li> <li>• To calculate the gradient of a line and know parallel lines have the same gradient</li> <li>• To calculate lines perpendicular to a given line.</li> <li>• To draw graphs using the gradient / intercept method and find the equation of a line</li> <li>• To solve simultaneous, quadratic and cubic equations graphically</li> <li>• To use and apply their knowledge of functions to solve real life problems graphically.</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 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>