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**Mathematics Faculty**

**Year 11 Foundation - Autumn Term 2**

**Unit 4 Overview – Pythagoras’ Theorem and Trigonometry**

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| **Topic** | **Key Ideas** | **Progress** | | |
| **R** | **A** | **G** |
| **Pythagoras’ Theorem and Trigonometry** | I can use Pythagoras’ theorem to find missing sides on right-angled triangles. |  |  |  |
| I can use trigonometry to find missing sides and angles on right-angled triangles. |  |  |  |
| I can recall and use exact trig values. |  |  |  |
| I can identify when to use Pythagoras’ theorem and when to use trigonometry to solve problems. |  |  |  |

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| **Lesson** | **Learning Focus** | **Assessment** | **Key Words** |
| **1** | **Using Pythagoras’ theorem to find the length of the hypotenuse or one of the shorter sides on a right-angled triangle (CM clip 257)** | Formative assessment strategies e.g. MWBs, whole class questioning, Diagnostic Questions, SLOP time with self-assessment, Live Marking etc.  Assessment is also supported with our use of ILOs, set through Century Learning, Corbettmaths, Dr Frost Maths and Justmaths.  Finally, units are assessed through staples challenges and half termly assessments, as part of our Assessment Calendar in Mathematics. | Pythagoras’ theorem, hypotenuse, length, triangle, right-angle |
| **2** | Solving problems using Pythagoras’ theorem. Calculating the length of a line segment (CM clips 257, 260, 261 & 263) | Pythagoras’ theorem, hypotenuse, length, triangle, right-angle, distance |
| **3** | **Using the sine, cosine and tangent ratios to find missing sides on right-angled triangles (CM clips 329 & 330)** | trigonometry, sine, cosine, tangent, triangle, right-angle, length |
| **4** | **Using the sine, cosine and tangent ratios to find missing angles on right-angled triangles (CM clip 331)** | trigonometry, sine, cosine, tangent, triangle, right-angle, angle |
| **5** | Using the trigonometric ratios to solve problems (CM clips 330 & 331) | trigonometry, sine, cosine, tangent, triangle, right-angle, length, angle, elevation |
| **6** | Knowing and using exact trig values (CM clip 341) | trigonometry, sine, cosine, tangent, triangle, right-angle, length, angle, value |