**** **Mathematics Faculty**

**Year 8 Spring Term 2 – Sigma Scheme**

**Unit 7 Overview - Angles**

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| **Topic** | **Key Ideas** | **Progress** |
| **R** | **A** | **G** |
| **Angles** | I can calculate interior and exterior angles of regular polygons. |  |  |  |
| I can read, draw and calculate bearings. |  |  |  |
| I understand the conditions of congruency. |  |  |  |
| I can use Pythagoras’ theorem to find the hypotenuse or a shorter side of a right-angled triangle. |  |  |  |
| I can find a missing length or angle of a right-angled triangle using trigonometric ratios. |  |  |  |
| I can identify when to use Pythagoras’ theorem or trigonometry. |  |  |  |

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| **Lesson** | **Learning Focus** | **Assessment** | **Key Words** |
| **1** | **Calculating interior angles of a regular polygon** (CM clip 32) | 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 and Corbettmaths.Finally, units are assessed through skills checks and half termly assessments, as part of our Assessment Calendar in Mathematics. | angle, degrees, regular, interior, polygon, edges, vertices |
| **2** | **Calculating exterior angles of a regular polygon** (CM clip 32) | angle, degrees, regular, exterior, polygon, edges, vertices |
| **3** | Reading, drawing and calculating bearings (CM clips 26 & 27) | protractor, measure, bearing, three-figure, clockwise, north, angle |
| **4** | Understanding the conditions of congruency (CM clip 67) | angle, side, hypotenuse, condition, congruent, identical |
| **5** | **Using Pythagoras’ theorem to find the hypotenuse or a shorter side of a right-angled triangle** (CM clip 257) | triangle, right angle, hypotenuse, Pythagoras’ theorem, sum, square, square root |
| **6** | Finding a missing length of a right-angled triangle using trigonometric ratios (CM clip 330) | trigonometry, sin, cos, tan, hypotenuse, adjacent, opposite |
| **7** | Finding a missing angle of a right-angled triangle using trigonometric ratios (CM clip 331) | trigonometry, sin, cos, tan, hypotenuse, adjacent, opposite, inverse |
| **8** | Identifying when to use Pythagoras’ theorem or trigonometry and solve mixed problems. (CM clips 257, 330 & 331) | trigonometry, sin, cos, tan, hypotenuse, adjacent, opposite, inverse, Pythagoras’ theorem, sum, square |