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**Mathematics Faculty**

**Year 10 Foundation – Summer Term 2**

**Unit 11 Overview – Transformations and Similarity**

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| **Topic** | **Key Ideas** | **Progress** | | |
| **R** | **A** | **G** |
| **Transformations and Similarity** | I can transform shapes by reflection, rotation, translation and enlargement. |  |  |  |
| I can describe transformations. |  |  |  |
| I can calculate the sum and difference of two vectors and scalar multiples. |  |  |  |
| I can recognise similar shapes and calculate missing lengths. |  |  |  |

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| **Lesson** | **Learning Focus** | **Assessment** | **Key Words** |
| **1** | Reflecting shapes on a grid. Describing reflections (CM clips 272 – 274) | 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 skills checks and half termly assessments, as part of our Assessment Calendar in Mathematics. | transformation, reflection, symmetry, equation |
| **2** | Rotating shapes on a grid. Describing rotations (CM clip 275) | transformation, rotation, direction, (anti-)clockwise, degree, centre |
| **3** | Translating shapes. Using vectors to describe translations (CM clips 325 – 326) | transformation, translation, vector, direction |
| **4** | Enlarging shapes by a positive and fractional scale factor. Describing enlargements (CM clips 104 - 107) | transformation, enlargement, scale factor, positive, fractional, centre |
| **5** | **Transforming shapes by a combination of reflections, rotations and translations** (CM clips 272 – 274, 275, 325 – 326 & 104 – 107) | transformation, reflection, symmetry, equation, rotation, direction, (anti-)clockwise, degree, centre, translation, vector, direction, enlargement, scale factor, positive, fractional |
| **6** | **Calculating and representing graphically the sum of two vectors, the difference of two vectors and a scalar multiple of a vector** (CM clip 353a) | vector, column, notation, sum, difference, scalar |
| **7** | Recognising similar shapes. Calculating lengths of similar shapes (CM clips 291 – 292) | similar, similarity, triangle, length, angle, enlargement, scale factor |
| **8** | Comparing lengths, areas and volumes of similar shapes. | similar, length, scale factor, area, volume, square, cube |