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**Mathematics Faculty**

**Year 8 Summer Term 1 - Sigma Scheme**

**Unit 10 Overview - Algebraic Graphs**

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| **Topic** | **Key Ideas** | **Progress** | | |
| **R** | **A** | **G** |
| **Algebraic Graphs** | I can plot graphs of linear equations. |  |  |  |
| I can interpret gradients as a rate of change. |  |  |  |
| I can calculate gradients and intercepts. |  |  |  |
| I can reduce a given equation to the form y=mx + c. |  |  |  |
| I can plot and interpret graphs in real-life contexts. |  |  |  |
| I can plot and interpret quadratic graphs. |  |  |  |
| I can recognise and sketch simple cubic and reciprocal functions. |  |  |  |

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| **Lesson** | **Learning Focus** | **Assessment** | **Key Words** |
| **1** | Plotting graphs of linear equations (CM clip 186) | 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. | coordinate, generate, graph, linear, equation, substitute |
| **2** | Interpreting gradients as a rate of change. Calculating gradients numerically and graphically. Interpreting intercepts graphically (CM clips 189 & 190) | gradient, rate, change, intercept, axis, coordinate, graph |
| **3** | **Reducing a given equation to the form y=mx + c and identifying the gradient and y-intercept** (CM clip 191) | equation, gradient, y-intercept, rearrange |
| **4** | Plotting and interpreting graphs in real-life contexts including distance-time (CM clip 171) | plot, graph, coordinate, interpret, speed, distance, time, gradient, horizontal |
| **5** | **Completing a table of values for quadratic graphs and plotting the corresponding graph** (CM clip 264) | coordinate, generate, graph, quadratic, equation, substitute, plot |
| **6** | Recognising, sketching and interpreting graphs of simple cubic and reciprocal functions (CM clips 344 & 346) | graph, function, cubic, reciprocal, sketch, interpret |