**** **Mathematics Faculty**

**Year 9 Autumn Term 1 – Sigma Scheme**

**Unit 2 Overview - Manipulating Expressions**

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| **Topic** | **Key Ideas** | **Progress** |
| **R** | **A** | **G** |
| **Manipulating Expressions** | I can understand and use algebraic notation and terminology. |  |  |  |
| I can simplify expressions. |  |  |  |
| I can expand and simplify two single brackets. |  |  |  |
| I can expand double brackets. |  |  |  |
| I can factorise one bracket. |  |  |  |
| I can rearrange formulae to change the subject. |  |  |  |
| I can substitute positive and negative values into expressions and formulae involving powers and where the unknown appears more than once. |  |  |  |

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| **Lesson** | **Learning Focus** | **Assessment** | **Key Words** |
| **1** | Understanding and using correct algebraic notation and terminology (CM clip 19) | 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. | notation, term, expression, coefficient |
| **2** | Simplifying expressions (CM clips 9, 11 & 18) | term, like term, expression, simplify, coefficient, positive, negative, add, subtract, multiply, divide, index |
| **3** | Expanding and simplifying two single brackets (CM clips 13 & 9) | term, expression, bracket, expand, multiply, simplify |
| **4** | **Factorising one bracket, ensuring all common factors are taken out** (CM clip 117) | factorise, factor, common, HCF  |
| **5** | **Expanding double brackets, including square brackets** (CM clip 14) | term, expression, bracket, expand, multiply, simplify  |
| **6** | **Rearranging formulae to change the subject, including those with powers and roots** (CM clip 7) | rearrange, inverse, subject, formula, power, root  |
| **7** | Substituting positive and negative values into expressions and formulae involving powers and where the unknown appears more than once(CM clip 20) | term, expression, substitute, positive, negative, power, unknown |