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**Mathematics Faculty**

**Year 10 Foundation – Spring Term 1**

**Unit 6 Overview – Equations, Inequalities and Sequences**

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| **Topic** | **Key Ideas** | **Progress** | | |
| **R** | **A** | **G** |
| **Equations, Inequalities and Sequences** | I can construct and solve linear equations with brackets and the unknown value on both sides. |  |  |  |
| I can construct and solve linear simultaneous equations. |  |  |  |
| I can solve linear inequalities and represent solutions on a number line. |  |  |  |
| I can generate and describe sequences using the nth term. |  |  |  |
| I can recognise and use special sequences. |  |  |  |

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| **Lesson** | **Learning Focus** | **Assessment** | **Key Words** |
| **1** | **Solving equations involving unknowns on both sides** (CM clip 113) | 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. | equation, construct, solve, unknown, variable, coefficient, balance, inverse |
| **2** | Solving equations involving brackets (CM clips 13 & 113) | equation, construct, solve, bracket, expand, unknown, variable, coefficient, balance, inverse |
| **3** | **Solving linear simultaneous equations where one of the coefficients is equal** (CM clips 295 & 296) | simultaneous, equation, coefficient, variable, addition, subtraction, solve, eliminate |
| **4** | **Solving simultaneous equations where you need to multiply one equation** (CM clips 295 & 296) | simultaneous, equation, coefficient, variable, addition, subtraction, multiply, solve, eliminate |
| **5** | **Solving simultaneous equations where you need to multiply both equations** (CM clips 295 & 296) | simultaneous, equation, coefficient, variable, addition, subtraction, multiply, solve, eliminate |
| **6** | Solving quadratic equations by factorising (CM clip 266) | factorise, quadratic, solve, brackets, unknown, coefficient, variable, constant |
| **7** | **Solving linear inequalities and representing solutions on a number line** (CM clips 176 – 179) | solve, inequality, variable, coefficient, less than, greater than, equal, number line, boundary |
| **8** | **Finding the nth term of linear sequences** (CM clip 288) | term, describe, sequence, linear, rule, nth term |
| **9** | Generating sequences where the nth term is given. Working out the value of the nth term. (CM clip 288) | term, generate, sequence, linear, rule, nth term |
| **10** | Recognising and using simple arithmetic progressions, Fibonacci-type sequences, quadratic sequences and simple geometric progressions (CM clips 287a & 375) | term, generate, describe, sequence, rule, difference, arithmetic, Fibonacci, quadratic, geometric |