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**Mathematics Faculty**

**Year 10 Unit 4 Overview**

**Fractions, Percentages and Ratio**

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| **Topic** | **Key Ideas** | **Progress** | | |
| **R** | **A** | **G** |
| **Fractions, Percentages and Ratio** | I can find the reciprocal of a number |  |  |  |
| I can use the four operations with mixed numbers |  |  |  |
| I can calculate percentage increases and decreases |  |  |  |
| I can calculate reverse percentages |  |  |  |
| I can calculate percentage change |  |  |  |
| I can find quantities using ratios |  |  |  |
| I can use direct proportion |  |  |  |
| I can convert currencies and measures |  |  |  |

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| **Lesson** | **Learning Focus** | **Assessment** | **Key Words** |
| **1** | Adding and subtracting mixed numbers  (CM133) | 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 which alternate between Basic Skills Checks one week and then a more individual ILO the following set through Mathswatch and Corbettmaths.  Finally, every unit is assessed half termly as part of our Assessment Calendar in Mathematics. | fraction, numerator, denominator, equivalent, simplify, cancel, improper fraction, mixed number, add, subtract |
| **2** | Multiplying and dividing mixed numbers  (CM134, 142) | fraction, numerator, denominator, improper fraction, mixed number, multiply, divide |
| **3** | Calculating percentage increases and decreases and reverse percentages  (CM234, 235) | percentage, per cent, hundredth, calculate, divide, multiply, inverse |
| **4** | Calculating repeated percentage change  (CM233) | percentage, per cent, hundredth, calculate, multiply, multiplier, compound interest, simple interest |
| **5** | Calculating percentage change and writing one quantity as a percentage of another (CM233) | percentage, per cent, hundredth, calculate, multiply, profit, loss, original, difference |
| **6** | Changing between fractions, decimals and percentages  (CM121-129) | Fraction, decimal, percentage, multiply, divide, equivalent, order, compare |
| **7** | Writing recurring decimals as fractions (CM96) | fraction, recurring, equation, simplify |
| **8** | Writing ratios in the form 1:n and sharing an amount in a given ratio  (CM270, 217a-271c) | Ratio, equivalent, simplify, divide, multiply, part |
| **9** | Solving problems when given one ratio (CM270, 217a-271c) | Ratio, equivalent, simplify, divide, multiply, solve |
| **10** | Solving problems when given two ratios (CM270, 217a-271c) | Ratio, equivalent, simplify, divide, multiply, solve |
| **11** | Solving problems involving direct proportion (CM254, 255) | Direct, proportion, value, relationship, increase, decrease |
| **12** | Converting between currencies and measures (CM214a) | Measure, currency, convert, multiply, divide |