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**Mathematics Faculty**

**Year 10 Foundation – Autumn Term 2**

**Unit 4 Overview – Representing and Interpreting Data**

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| **Topic** | **Key Ideas** | **Progress** | | |
| **R** | **A** | **G** |
| **Representing and Interpreting Data** | I can understand the limitations of sampling and recognise representative samples. |  |  |  |
| I can identify primary, secondary, discrete and continuous data. |  |  |  |
| I can construct and interpret pie charts. |  |  |  |
| I can construct and interpret time series graphs. |  |  |  |
| I can construct and interpret scatter graphs. |  |  |  |
| I can calculate averages from frequency and grouped frequency tables. |  |  |  |
| I can use statistics to compare populations. |  |  |  |

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| **Lesson** | **Learning Focus** | **Assessment** | **Key Words** |
| **1** | Understanding the limitations of sampling. Recognising representative samples. (CM clips 281 & 282) | 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. | sample, population, limitation, representative, bias, random, stratified |
| **2** | Constructing and interpreting pie charts (CM clips 163 & 164) | pie chart, construct, interpret, frequency, angle, sector |
| **3** | Plotting and interpreting time-series graphs. | time series, plot, interpret, trend, value, predict |
| **4** | **Constructing scatter graphs and recognising correlation (CM clips 165 & 168)** | scatter graph, construct, coordinate, correlation, relationship, positive, negative |
| **5** | **Using lines of best fit to estimate unknown values** (CM clips 166 & 167) | scatter graph, construct, coordinate, correlation, relationship, positive, negative, line of best fit, interpolation, extrapolation, estimate |
| **6** | **Calculating the mean, median, mode and range from frequency tables** (CM clips 51 & 54) | average, mean, median, mode, modal, range, frequency |
| **7** | **Calculating an estimate of the mean and finding the interval containing the median for a grouped frequency distribution** (CM clips 52 & 55) | average, mean, median, frequency, grouped, interval, estimate |
| **8** | Applying statistics to describe and compare populations (CM clips 50 – 57) | average, mean, median, mode, modal, range, compare, outlier |