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| **Title of unit:** | Data and Interpreting Results |
| **Overview of unit:** | Averages (data set, table, moving)  Bar charts  Venn Diagrams  Pie Charts  Scatter Graphs  Time series graphs  Cumulative frequency and box plots  Histograms |
| **Cross-curricular/ extra-curricular links:** | Business Studies – producing and interpreting averages and charts  English – grouping/categorising  Geography – use mathematical symbols and notation, construct and interpret graphs and charts  ICT – use mathematical symbols and notation, construct and interpret graphs and charts  Science – use graphs to represent data, interpretation of graphs; calculate averages |
| **Literacy/ numeracy links:** | Worded problems/exam questions  Keywords displayed on all PPts – average, mode, median, mean, range, axes, data, set, bar, pie, angle, total, coordinate, correlation, line of best fit, positive, negative, estimate, midpoint, frequency, maximum, minimum, lower/upper quartile, area, frequency density  Written plenaries |

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| **Grade:** | **Learning objective:** | **Resources:** |
| **1** | Find the mode and median for an odd set of numbers.  Use tally charts for discrete and continuous data.  Construct and interpret a pictogram.  Group data into Venn and Carroll diagrams.  Draw stem and leaf diagrams | [Averages](https://www.piximaths.co.uk/averages-mode-median-mean-range)  [Tally charts](https://www.piximaths.co.uk/tally-charts)  [Pictograms](https://www.piximaths.co.uk/pictograms)  [Venn and Carroll diagrams](https://www.piximaths.co.uk/venn-and-carroldiagrams-sorting)  [Stem and leaf](https://www.piximaths.co.uk/stem-and-leaf) |
| **2** | Construct and interpret a bar chart.  Work out the range for a set of numbers.  Find the median for an even set of numbers.  Calculate the mean for a set of numbers.  Interpret a pie chart.  Interpret a stem and leaf diagram | [Bar charts](https://www.piximaths.co.uk/bar-charts)  [Averages](https://www.piximaths.co.uk/averages-mode-median-mean-range)  [Drawing and interpreting pie charts](https://www.piximaths.co.uk/pie-charts)  [Stem and leaf](https://www.piximaths.co.uk/stem-and-leaf) |
| **3** | Compare the mean and range of two distributions.  Draw and interpret pie charts.  Draw and interpret a scatter graph. | [Averages](https://www.piximaths.co.uk/averages-mode-median-mean-range)  [Pie charts](https://www.piximaths.co.uk/pie-charts)  [Scatter graphs](https://www.piximaths.co.uk/scatter-graphs-and-correlation) |
| **4** | Draw a line of best fit on a scatter graph and describe the correlation. | [Scatter graphs](https://www.piximaths.co.uk/scatter-graphs-and-correlation) |
| **5** | Draw and interpret a time series graph.  Calculate the mean from a frequency table. | [Frequency polygons](https://www.piximaths.co.uk/frequency-polygons)  [Moving averages](https://www.piximaths.co.uk/moving-averages)  [Averages from tables](https://www.piximaths.co.uk/averages-from-frequency-tables) |
| **6** | Estimate the mean from grouped data.  Find the modal group and location of the median from grouped data. | [Averages from tables](https://www.piximaths.co.uk/averages-from-frequency-tables) |
| **7** | Construct and interpret a cumulative frequency diagram.  Use a cumulative frequency diagram to estimate the median and interquartile range.  Construct and interpret a box plot.  Compare two sets of data using box plots. | [Cumulative frequency and box plots](https://www.piximaths.co.uk/cumulative-frequency-and-box-plots) |
| **8** | Construct and interpret a histogram with unequal class intervals.  Calculate a moving average and use a trend line to predict future results. | [Histograms](https://www.piximaths.co.uk/histograms)  [Moving averages](https://www.piximaths.co.uk/moving-averages) |
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