


Subject	Year	Month	
Mathematics	11	September	
Topic:			
Cumulative Frequency, Box Plots & Histograms			
3 lessons			
Content (Intent)			
Prior Learning Year 8 Statistics project June Year 10 Averages November Year 10 Representing data November		Future Learning	
Objectives <ul style="list-style-type: none"> • Median and Quartiles from discrete data • Produce cumulative frequency tables and graphs • Estimate median, quartiles and percentiles from cumulative frequency graphs (includes reading other values from the graph e.g. how many students took longer than 40 seconds?) • Draw and interpret box plots • Compare 2 distributions using box plots and/or other measures • Draw and interpret histograms with unequal class widths, including estimating the mean or median from the histogram 			
Pedagogical notes (implementation)		How will understanding be assessed & recorded (Impact)	
<p>Ensure that axes are clearly labelled.</p> <p>As a way to introduce measures of spread, it may be useful to find mode, median, range and interquartile range from stem and leaf diagrams (including back-to-back) to compare two data sets.</p> <p>As an extension, use the formula for identifying an outlier, (i.e. if data point is below $LQ - 1.5 \times IQR$ or above $UQ + 1.5 \times IQR$, it is an outlier).</p>		<p>End of half term no</p> <p>End of Year Mocks in November yr11</p>	
		How can parents help at home?	
		MathsWatch clips (Qualification KS4)	
		<p>186: Cumulative Frequency</p> <p>187: Boxplots</p> <p>205: Histograms</p>	
Further reading/discussion			
Reading / Enrichment	Literacy	Numeracy Links	Careers Links Research analyst (medical, educational, market, management, etc.) Economist Statistician