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| **Core Knowledge Map** |
| Subject: **Mathematics** | Year: 10 | Term: Spring 2 |
| What are we learning? |
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| **Unit 8 – Handling Data** | **Spark IL****Code** | Sad face outline with solid fill | Nervous face outline with solid fill | Smiling face outline with solid fill |
| Two-way tables | U981 |  |  |  |
| Calculate mean, median & mode for discrete data | U526,U456U260,U291 |  |  |  |
| Find averages from charts and tables | U569,U854U877 |  |  |  |
| Calculate an estimate of the mean from grouped frequency tables | U569 |  |  |  |
| Compare averages using charts and diagrams | U717,U981U312 |  |  |  |
| Stem and leaf diagrams | U200,U909 |  |  |  |
| Which is the best average to use? | U717 |  |  |  |
| Frequency polygons | U840 |  |  |  |
| Histograms | U185,U814U983,U267 |  |  |  |
| Cumulative frequency and box plots | U182,U642,U879,U837U507 |  |  |  |

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| How will I be assessed  |
| Retrieval Tasks, Exit tickets, end of half-term test. |
| Big questions: |
| Can you….?* Describe the pros and cons for using each of the mean, median and mode averages.
* Explain how to find the median and IQR from a cumulative frequency curve.
* Work out what percentage of the total data is less than the upper quartile.
* Draw and label the main 5 features on a box plot.
* Describe the difference between the range and the interquartile range.
* Explain what the area of a bar in a histogram represents.
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| How does this build on previous learning? | How will this link to my future learning? |
| * Estimate of mean from grouped frequency table (Y9)
* Cumulative frequency curves (Y9)
* Construct Pie Charts (Y7)
* Two way tables (Y8)
 | * GCSE synoptic and multi-step problem solving questions.
* Histograms are revisited in A-Level statistics.
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| Core knowledge: | Key vocabulary: |
| * **A histogram** is used to represent grouped data with unequal class widths.
* $Frequency Density= \frac{Frequency}{Class width}$
 | Mean, Median and ModeRangeInterquartile rangeDiscrete and Continuous DataHistogramFrequency PolygonCumulativeBox PlotUpper and Lower quartiles |
| Need more help? Use the Sparx Independent Learning Codes above |