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| Year 7 | **Topic: Unit 2 – Analysing and Displaying Data**  **Period:** Autumn 1 |
| **Overview of topic:**  Students will build on their knowledge from key stage 2 in dealing with data, graphs and charts. Skills are developed in displaying and presenting data as well as reading and interpreting data presented in a variety of contexts. Students will also look at how reliable data from different sources can be and how to judge which datasets should be used in different situations.   * Mode Median and Range * Displaying Data * Grouping Data * Averages and comparing data | |
| **Key** **knowledge:**   * Data is a set of information. Each piece of information is called a value. The range is the difference between the smallest and largest values. The larger the range, the more spread out the values. * The mode is the most common value. It is also called the modal value. * The median is the middle value when the data is written in order. * A pictogram uses pictures to show data. The key shows what each picture represents. * A bar chart uses bars of equal width to show data. * A bar-line chart is like a bar chart but uses lines instead of bars. * You can record data in a tally chart. Use a tally mark for each value. * Group tally marks in fives. * The frequency of a value is the number of times it occurs. * A frequency table shows how many of each value there are in a set of data. * Data is sometimes organised into groups or classes, such as 1–5, 6–10, 11–15, ... The modal class is the one with the highest frequency. * A grouped frequency table gives the frequency for each group. * For data that comes from measuring, such as height, there are no gaps between the bars of a bar chart. * The mean of a set of values is the total of the set of values divided by the number of values. * The average of a set of data gives a typical value for the data. The mode, median and mean are different ways of describing the average of a set of data. * To compare two sets of data, find and compare an average (the mode, median or mean) and the range. | **Key skills:**   * Find the mode, median and range for a set of data * Find information from tables and diagrams * Display data using tally charts, tables, bar charts and bar-line charts * Interpret simple charts for grouped data * Find the modal class for grouped data * Calculate the mean of a set of data * Compare sets of data using their ranges and averages   **Key vocabulary:**   |  |  | | --- | --- | | Tier 2 | Tier 3 | | * Mode * Mean * Range * Average * Spread * Measure * Data * Value * Table * Bar * Information * Representation * Grouped * Compound | * Median * Modal * Tally | |
| **Co-curricular opportunities:** Data handling skills are a vital key skill across multiple other areas of study including Science, Geography, PE and many others. The ability to assess the reliability of a source has similar implications to analysing source material in History and English | **Key reading skills taught and key texts:**  Clarify – identify key vocabulary in questions and be fluent in understanding the meanings  Question – from a worded question, what Maths is required to be done in order to get a solution?  **Wider Reading Opportunities/Links:** |
| **How can I use this information at home?**   * Conversation starters with your children to discuss their learning * Support your child in carrying out independent research around the topic * Visit your local library (or BorrowBox), museums, or other locations to explore the topic * Promote books/other texts that explore this topic (see reading section) * Help your child to learn the key vocabulary * Encourage practice and consolidation through completion of homework, TTRockStars and using other online learning platforms * Encourage them to practice their mathematical skills in a variety of everyday situations wherever the opportunity arises. | |