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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
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| **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:**

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| Tier 2 | Tier 3 |
| * Mode
* Mean
* Range
* Average
* Spread
* Measure
* Data
* Value
* Table
* Bar
* Information
* Representation
* Grouped
* Compound
 | * Median
* Modal
* Tally
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| **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 meaningsQuestion – 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.
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