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| **Core Knowledge Map** |
| Subject: Mathematics | Year: 10 | Term: Autumn 1 |
| What are we learning? |
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|  **Unit 1. Collection of Data** |
| Unit 1a. Types of Data | * To be able to recognise and describe the different types of data.
* To be able to group data into different class intervals.
* To understand the advantages and disadvantages to using either primary or secondary data.
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| How will I be assessed  |
| Retrieval Tasks, Exit Tickets, Topic Test at the end of the half term. |
| Big questions: |
| Can You….?* Name one example of qualitative and one example of quantitative data.
* Explain the difference between discrete and continuous data.
* Name an advantage of primary over secondary data.
* Suggest a reason for grouping both discrete and continuous data.
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| How does this build on previous learning? | How will this link to my future learning? |
| * In both Key Stage 3 and 4 (GCSE Maths), students will have encountered types of data and should be familiar with specific types such as qualitative/quantitative data as well as recognising the difference between discrete and continuous data. GCSE Statistics then builds on this to look at types of data in more detail such as raw vs processed data, bivariate and multivariate data as well as the sources of data such as primary (gathered yourself) or secondary (taken from an external source).
 | * Understanding the different types of data, how to collect them, their advantages and disadvantages is an essential part of the Data Handling Cycle.
* Statistical enquiry, including data collection is essential in some sciences including Psychology, Biology, Chemistry and Physics as well as having an important role in Geography and Business Studies. It is also a core topic in A-Level Maths.
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| Core knowledge: | Key vocabulary: |
| * Data can be described in many ways: ***Raw*** (unprocessed) or ***Processed*** (edited including removing outliers). ***Qualitative*** data describes non-numerical data such as eye colour, ***Quantitative*** data describes numerical data such as height. Data can be further described as ***Discrete*** (taking specific values such as shoe size), or ***Continuous*** (able to take any value, such as height). ***Ordinal*** data is data that can be ranked, such as test scores and ***Categorical*** data can be put into non-overlapping groups such as sex. Data can be ***primary*** (captured by yourself) or ***secondary*** (taken from an external source such as the internet). ***Bivariate*** data includes two variables such as gender and height, whilst ***Multivariate*** data includes more than two variables.
* Data can be grouped, making it easier to read and spot patterns. However, this loses accuracy and means we will need to estimate certain values such as the mean.
 | **Types of Data:** Raw, Qualitative, Quantitative, Discrete, Continuous, Categorical, Ordinal, Bivariate, Multivariate.**Data Sources:** Primary, Secondary. |
| Need more help? Refer to the knowledge organiser uploaded to Class Charts at the start of the year. |