



# Summer Learning Journey for Maths

## Year 9F Unit 7 – Averages and Range

How does this unit link to prior learning?

- Midpoints
- Averages

### Prior Knowledge Check

1. What is the midpoint of 7 and 11?
2. Use the following data to find: **2 7 4 6 9 2**
  - a. Mode
  - b. median
  - c. mean
  - d. range

### What will you be learning about?

- Be able to work out the mean, median, mode and range from a variety of sources.
- Be able to draw and interpret a stem and leaf diagram. Understand why we take samples and how we can do it.

We will develop our learning each week by focusing on:

1. Averages from a List	RAG	2. Mean and Range from a frequency table	RAG
<ul style="list-style-type: none"> <li>• Find the mean, median, mode and range from a list of numbers.</li> </ul>		Calculate the mean and range from a frequency table.	
<b>3. Find the median and Mode from a frequency table.</b> <ul style="list-style-type: none"> <li>• Calculate the median and mode from a frequency table.</li> </ul>		<b>4. Stem and Leaf Diagrams</b> <ul style="list-style-type: none"> <li>• Find the mode, median and range from a stem and leaf diagram.</li> <li>• Identify outliers.</li> <li>•</li> </ul>	
<b>5. Comparing Data using averages</b> <ul style="list-style-type: none"> <li>• Compare sets of data using the mean, median, mode and range.</li> </ul>		<b>6. Consolidation lesson</b> <ul style="list-style-type: none"> <li>• Consolidation on all work covered so far on the topic.</li> <li>• Long periods of deliberate practice.</li> <li>• Should contain exam questions</li> </ul>	

<p><b>7. Estimated Mean</b></p> <ul style="list-style-type: none"> <li>Estimated mean from grouped frequency tables.</li> </ul>		<p><b>8. Grouped Frequency Tables</b></p> <ul style="list-style-type: none"> <li>Estimating the median, modal class and range from grouped frequency tables.</li> </ul>	
<p><b>9. Advantages and disadvantages.</b></p> <ul style="list-style-type: none"> <li>Recognise the advantages and disadvantages of each type of average.</li> </ul>		<p><b>10. Sampling</b></p> <ul style="list-style-type: none"> <li>Understand the need for sampling. Understand how to avoid bias.</li> </ul>	
<p><b>11. Revision Lesson</b></p> <ul style="list-style-type: none"> <li>Select topics you feel the class need to revise. Classroom based or Mathswatch.</li> </ul>		<p><b>12. Assessment Lesson (non-calculator)</b></p> <ul style="list-style-type: none"> <li>Do 10-minute top up and go through answers together, students self-assess. Open book assessment done in silence.</li> </ul>	
<p><b>13. Feedback Lesson</b></p> <ul style="list-style-type: none"> <li>Student to highlight their traffic light sheet.</li> <li>Teacher to go through test and students to self-assess in green.</li> <li>Students to complete the NOW section of the WOW-HOW-NOW sheet.</li> </ul>			

**Key Vocabulary**

<i>Average</i>	<i>Continuous</i>	<i>Discrete</i>	<i>Sample</i>	<i>Estimate</i>	<i>Interval</i>	<i>Sort</i>
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**How will this help you in the future?**

<p><b>KS4</b></p> <p>Learning about averages and range helps students in school by allowing them to analyze data, compare results, understand variation, and make sense of information in subjects other than maths such as science, and social studies.</p>	<p><b>Beyond LHS</b></p> <p>Learning about averages and range helps individuals in life after school by enabling them to interpret data, compare choices, understand variation, and make informed decisions in areas such as budgeting, work performance, and everyday problem-solving.</p>
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