

Year: 7

Subject: Mathematics

| Spring Term | | |
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| Overarching Topic: | | |
| What has come before and what comes later: | Previously students would have studied sequences, algebraic expressions, place value and decimals, fractions, decimals and percentages and their equivalence. Following on from this students will study constructing and measuring, developing geometric reasoning, number sense, sets and probability, prime numbers and proof. | |
| | Foundation | Higher |
| The Big Questions (What questions will students be able to answer upon mastery of the topic?) | <p>Are you able to use a formal written method for adding and subtracting integers? Can you give an alternative method? Are you able to use a formal written method for adding and subtracting decimals? How would you calculate the perimeter of a shape?</p> <p>Describe what a frequency tree looks like. How would you use a frequency tree? Could you use a table to represent data? What types of table do we commonly use in maths?</p> <p>Are you able to multiply numbers by 10, 100, 1000? Can you give an example of a metric unit? Are you able to convert between metric units?</p> <p>Can you perform multiplication sums using a written method? Is there an alternative method, to the one you use? Can you perform division sums using a written method?</p> <p>What is meant by HCF and LCM? Can you identify the HCF and LCM of a pair of numbers?</p> <p>What is the formula for area of a triangle? Can you calculate the area of a rectangle and parallelogram?</p> | <p>Are you able to use a formal written method for adding and subtracting integers? Can you give an alternative method? Are you able to use a formal written method for adding and subtracting decimals? How would you calculate the perimeter of a shape?</p> <p>Describe what a frequency tree looks like. How would you use a frequency tree? Could you use a table to represent data? What types of table do we commonly use in maths?</p> <p>What is the format for a number written in standard form? Are you able to add numbers that are written in standard form?</p> <p>Are you able to multiply numbers by 10, 100, 1000? Can you give an example of a metric unit? Are you able to convert between metric units?</p> <p>Can you perform multiplication sums using a written method? Is there an alternative method, to the one you use? Can you perform division sums using a written method?</p> <p>What is meant by HCF and LCM? Can you identify the HCF and LCM of a pair of numbers? Can you calculate the HCF and LCM of data involving algebra?</p> |

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| | <p>How would you find the mean from a set of data?</p> <p>Can you find a fraction of a given amount?</p> <p>Can you find a percentage of a given amount?</p> <p>Is there a connection between these two calculations?</p> <p>What is meant by a two-step equation?</p> <p>Can you give an example of a two-step equation?</p> <p>What kind of operations are used to solve equations?</p> <p>Can you solve a two-step equation?</p> <p>What is meant by the 'order of operations'?</p> <p>Why do we need an order of operations?</p> | <p>What is the formula for area of a triangle?</p> <p>Can you calculate the area of a rectangle and parallelogram?</p> <p>What is the formula for the area of a trapezium?</p> <p>Can you calculate the area of shapes, where its dimensions are given in terms of x?</p> <p>How would you find the mean from a set of data?</p> <p>Can you find a fraction of a given amount?</p> <p>Can you find a percentage of a given amount?</p> <p>Is there a connection between these two calculations?</p> <p>Can you give an example of an improper fraction?</p> <p>Can you perform calculations involving improper fractions?</p> <p>What is meant by a two-step equation?</p> <p>Can you give an example of a two-step equation?</p> <p>What kind of operations are used to solve equations?</p> <p>Can you solve a two-step equation?</p> <p>What is meant by the 'order of operations'?</p> <p>Why do we need an order of operations?</p> |
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