**Year 5 Medium Term Plan**

**(NB: This document was included in the first draft of these plans and has not been reviewed, but has been left in as an exemplar. If it is used, ensure it is cross-referenced with the overview and domain plans. The format may also be used for other year group planning )**

**Autumn**

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| **Number of weeks** | **Domain** | **Statutory Requirements** | **Topic Links** |
| (1 week) | Number / Using and Applying  | * read, write, order and compare numbers with up to three decimal places
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| (2 weeks) | Place Value - including decimals, see fractions | * read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit
* count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000
* round any number up to 1 000 000 to the nearest 10, 100,1000, 10 000 and 100 000
* read Roman numerals to 1000 (M) and recognise years written in Roman numerals.
* round decimals with two decimal places to the nearest whole number and to one decimal place
* read, write, order and compare numbers with up to three decimal places
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| (3 weeks) | Multiplication and Division  | * multiply numbers up to 4 digits by a one- or two-digit number using an efficient written method, including long multiplication for two-digit numbers
* multiply and divide numbers mentally drawing upon known facts
* divide numbers up to 4 digits by a one-digit number using the efficient written method of short division and interpret remainders appropriately for the context
* multiply and divide whole numbers and those involving decimals by 10, 100 and 1000
* solve problems involving multiplication and division
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| (2 weeks) | Addition and Subtraction  | * add and subtract whole numbers with more than 4 digits, including using efficient written methods (columnar addition and subtraction)
* add and subtract numbers mentally with increasingly large numbers
* use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy
* solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.
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| (2 weeks) | Geometry - 2D and 3D shape  | * identify 3-D shapes, including cubes and other cuboids, from 2-D representations
* use the properties of rectangles to deduce related facts and find missing lengths and angles
* distinguish between regular and irregular polygons based on reasoning about equal sides and angles
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| (2 weeks) | Fractions  | * compare and order fractions whose denominators are all multiples of the same number
* identify, name and write equivalent fractions of a given fraction , represented visually, including tenths and hundredths
* recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number (e.g. 2/5 + 4/5 = 6/5 = 1 1/5)
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**Spring**

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| **Number of weeks** | **Domain** | **Statutory Requirements** | **Topic Links** |
| (2 weeks) | Multiplication and Division  | * identify multiples and factors, including finding all factor pairs
* solve problems involving multiplication and division where larger numbers are used by decomposing them into their factors
* know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers
* establish whether a number up to 100 is prime and recall prime numbers up to 19
* recognise and use square numbers and cube numbers, and the notation for squared (2) and cubed (3)
* solve problems involving multiplication and division
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| (3 weeks) | Fractions  | * solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates.
* read and write decimal numbers as fractions (e.g. 0.71 = 71/100)
* recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents
* solve problems involving number up to three decimal places
* recognise the percent symbol (%) and understand that per cent relates to “number of parts per hundred,” and write percentages as a fraction with denominator hundred, and as a decimal fraction
* solve problems which require knowing percentage and decimal equivalents of ½, ¼, 1/5, 2/5, 4/5 and those with a denominator of a multiple of 10 or 25
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| (1 week) | Position and Direction  | * identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed.
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| (4 weeks) | Measures, including problem solving  | * convert between different units of measure (e.g. kilometre and metre; metre and centimetre; centimetre and millimetre; kilogram and gram; litre and millilitre)
* understand and use equivalences between metric units and common imperial units such as inches, pounds and pints
* measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres
* calculate and compare the area of squares and rectangles including using standard units, square centimetres (cm”) and square metre (m”) and estimate the area of irregular shapes
* estimate volume (e.g. using 1 cm3 blocks to build cubes and cuboids) and capacity (e.g. using water)
* solve problems involving converting units of time
* use all four operations to solve problems involving measure (e.g. length, mass, volume, money) using decimal notation including scaling
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| (1 week) | Place value - negative numbers and problems  | * interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers through zero
* solve number problems and practical problems that involve all of the above
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**Summer**

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| **Week** | **Domain** | **Statutory Requirements** | **Topic Links** |
| (2 weeks) | Geometry - angles  | * know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles
* draw given angles, and measure them degrees (°)
* identify
	+ angles at a point and one whole turn (total 360°)
	+ angles at a point on a straight line and ½ turn (total 180°)
	+ other multiples of 90°
 |  |
| (2 weeks) | Statistics  | * solve comparison, sum and difference problems using information presented in line graphs
* complete, read and interpret information in tables, including timetables.
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| (2 weeks) | Fractions  | * add and subtract fractions with the same denominator and multiples of the same number
* multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams
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| (as necessary) | Revision  |  |  |
| Transition | Ratio and Scaling | Link to other areas / Year 6  |  |
| Transition | Algebra  | Link to other areas / Year 6 |  |