## Gosberton Academy Long Term Map - Year 4 & Year 5 Maths (2023/2024)



|              | Week                                     | Week | Week | Week                                       | Week                              | Week                                  | Week                                  | Week                                     | Week      | Week                                | Week  | Week              | Week                 | Week                   | Week         | Week<br>16 |
|--------------|--|------|------|--|-----------------------------------|---------------------------------------|---------------------------------------|--|-----------|-------------------------------------|---|-------------------|----------------------|------------------------|--------------|------------|
|              | ı  | Z    | 3    | 4  | 5                                 | 6                                     |                                       | 8  | 9         | 10                                  | 11  | 12                | 13                   | 14                     | 15           |            |
| Autumn       | Number: Place Value                      |      |      | Number: Addition and Subtraction           |                                   |                                       | Multiplicatio<br>n and                | Half Term Half Term N                    |           | Number:                             | Number: Multiplication and Division   |                   | Length and Perimeter |                        | Area         |            |
| Y4           |  |      |      |  |                                   |                                       | Division                              | Thur, Term                               |           | Wallisell Waldpleation and Division |   |                   | zengan and remineter |                        |              |            |
| Autumn       |  |      |      |  |                                   |                                       | Multiplicatio                         |  |           |                                     |   |                   |                      |                        | Consolidatio |            |
| Y5           | Number: Place Value                      |      |      | Number: Addition and Subtraction           |                                   |                                       | n and<br>Division                     | Half Term                                | Half Term | Multiplication and Division         |   |                   | Length and Perimeter |                        | n            |            |
| Spring       |  |      |      |  |                                   |                                       | DIVISION                              |  |           |                                     |   |                   |                      | Consolidation Frontage |              |            |
| Spring<br>Y4 | Number: Fractions Decima                 |      |      |  | Decimals                          | Half Term                             | Nu                                    | mber: Decimal                            | S         | Money                               |   | Consolidatio<br>n | Easter<br>Holiday    | Easter<br>Holiday      |              |            |
| Spring<br>Y5 | Numper: Fractions                        |      |      |  |                                   | Half Term                             | Nu                                    | Number: Decimals Number: Decimals and Pe |           |                                     | Percentages   | Easter<br>Holiday | Easter<br>Holiday    |                        |              |            |
| Summer<br>Y4 | Statistics Geometry: Properties of Shape |      |      |  | Geometry : Position and Direction | Half Term                             | Revision of<br>the four<br>operations | Measures                                 |           |                                     | Consolidation of all learning – ensure place value and the four operations is secure – apply this to problem solving. |                   |                      | Summer<br>Holiday      |              |            |
| Summer<br>Y5 | Statistics Geometry: Properties of Shape |      |      | Geometry<br>: Position<br>and<br>Direction | Half Term                         | Revision of<br>the four<br>operations |                                       | Measures                                 |           |                                     | of all learning – ensu<br>perations is secure<br>problem solving.   |                   | Summer<br>Holiday    |                        |              |            |

| Year 4: Number and Place Value   |  | SP | SU | Year 4: Fractions and Decimals (continued)   | AU | SP | SU |
|--|--|----|----|--|----|----|----|
| Count in multiples of 6, 7, 9, 25 and 1000   |  |    |    | Recognise and write decimal equivalents to one quarter, one half and three quarters.   |    |    |    |
| Find 1000 more or less than a given number   |  |    |    | Find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths |    |    |    |
| Count backwards through zero to include negative numbers   |  |    |    | Round decimals with one decimal place to the nearest whole number  |    |    |    |
| Recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones)                       |  |    |    | Compare numbers with the same number of decimal places up to two decimal places  |    |    |    |
| Order and compare numbers beyond 1000  |  |    |    | Solve simple measure and money problems involving fractions and decimals to two decimal places.  |    |    |    |
| Identify, represent and estimate numbers using different representations   |  |    |    | Year 4: Measures   |    |    |    |
| Round any number to the nearest 10, 100 or 1000  |  |    |    | Convert between different units of measure [for example, kilometre to metre; hour to minute]   |    |    |    |
| Solve number and practical problems that involve all of the above and with increasingly large positive numbers             |  |    |    | Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres  |    |    |    |
| Read Roman numerals to 100 and know that over time, the numeral system changed to inc the concept of zero and place value. |  |    |    | Find the area of rectilinear shapes by counting squares  |    |    |    |
| Year 4: Addition and Subtraction   |  |    |    | Estimate, compare and calculate different measures, including money in pounds and pence  |    |    |    |
| Add and subtract numbers with up to 4 digits using the formal written methods of columnar + and - where appropriate        |  |    |    | Read, write and convert time between analogue and digital 12- and 24-hour clocks   |    |    |    |
| Estimate and use inverse operations to check answers to a calculation  |  |    |    | Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.   |    |    |    |
| Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.        |  |    |    | Year 4: Properties of Shape  |    |    |    |
| Year 4: Multiplication and Division  |  |    |    | Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes                                     |    |    |    |

**N.B.** – These are <u>suggested</u> time frames; if you need to, please spend longer on a block, objectives must be embedded. Consolidation of any learning should focus on place value, the four operations and fractions (inc. decimals and percentages for the older children). Blocks taught should be revisited each term through Cold Maths, lesson starters and when links are made between mathematical concepts e.g. measure and place value. These are curriculum objectives and what you should be teaching from.

## Gosberton Academy Long Term Map - Year 4 & Year 5 Maths (2023/2024)



| Recall multiplication and division facts for multiplication tables up to 12 × 12  | Identify acute and obtuse angles and compare and order angles up to two right angles by size                                  |  |  |
|---|---|--|--|
| Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers  | Identify lines of symmetry in 2-D shapes presented in different orientations  |  |  |
| Recognise and use factor pairs and commutativity in mental calculations   | Complete a simple symmetric figure with respect to a specific line of symmetry  |  |  |
| Multiply two-digit and three-digit numbers by a one-digit number using formal written layout  | Year 4: Position and Direction  |  |  |
| Solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects. | Describe positions on a 2-D grid as coordinates in the first quadrant   |  |  |
| Year 4: Fractions and Decimals  | Describe movements between positions as translations of a given unit to the left/right and up/down                            |  |  |
| Recognise and show, using diagrams, families of common equivalent fractions   | Plot specified points and draw sides to complete a given polygon.   |  |  |
| Count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten.   | Year 4: Statistics  |  |  |
| Solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number   | Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs. |  |  |
| Add and subtract fractions with the same denominator  | Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs  |  |  |
| Recognise and write decimal equivalents of any number of tenths or hundredths   |   |  |  |

| Year 5: Number and Place Value   | AU | SP | SU | Year 5: Fractions (including decimals and percentages) - continued  | AU | SP | SU |
|--|----|----|----|---|----|----|----|
| Read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit                                   |    |    |    | Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams   |    | 1  |    |
| Count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000  |    |    |    | Read and write decimal numbers as fractions [for example, 0.71 = 71/100]  |    |    |    |
| Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero |    |    |    | Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents   |    |    |    |
| Round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000  |    |    |    | Round decimals with two decimal places to the nearest whole number and to one decimal place   |    |    |    |
| Solve number problems and practical problems that involve all of the above   |    |    |    | Read, write, order and compare numbers with up to three decimal places  |    | 1  |    |
| Read Roman numerals to 1000 (M) and recognise years written in Roman numerals  |    |    |    | Solve problems involving number up to three decimal places  |    |    |    |
| Year 5: Addition and Subtraction   |    |    |    | Recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per hundred', and write percentages as a fraction with denominator 100, and as a decimal             |    |    |    |
| Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar)                            |    |    |    | Solve problems which require knowing percentage and decimal equivalents of 1/2, 1/4, 1/5, 2/5, 4/5 and those fractions with a denominator of a multiple of 10 or 25.                            |    |    |    |
| Add and subtract numbers mentally with increasingly large numbers  |    |    |    | Year 5: Measures  |    |    |    |
| Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy                         |    |    |    | Convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre)                  |    |    |    |
| Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.                |    |    |    | Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints   |    |    |    |
| Year 5: Multiplication and Division  |    |    |    | Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres   |    |    |    |
| Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers                    |    |    |    | Calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm2) and square metres (m²) and estimate the area of irregular shapes |    |    |    |
| Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers  |    |    |    | Estimate volume [for example, using 1 cm <sup>3</sup> blocks to build cuboids (including cubes)] and capacity [for example, using water]  |    |    |    |

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| Establish whether a number up to 100 is prime and recall prime numbers up to 19  | Solve problems involving converting between units of time  |  |
|--|--|--|
| Multiply numbers up to 4 digits by a 1 or 2 digit number using a formal written method, including long multiplication for two-digit numbers                                      | Use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling.                        |  |
| Multiply and divide numbers mentally drawing upon known facts  | Year 5: Properties of Shape  |  |
| Divide numbers up to 4 digits by a 1-digit number using the formal written method of short division; interpret remainders appropriately  | Identify 3-D shapes, including cubes and other cuboids, from 2-D representations   |  |
| Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000   | Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles  |  |
| Recognise and use square numbers and cube numbers, and the notation for squared (²) and cubed (³)  | Draw given angles, and measure them in degrees (o)   |  |
| Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes   | Identify: angles at a point and one whole turn (total 360°); angles at a point on a straight line and 1/2 a turn (total 180°) and other multiples of 90°                 |  |
| Solve problems involving all four operations and a combination of these, inc. understanding the meaning of the equals sign   | Use the properties of rectangles to deduce related facts and find missing lengths and angles   |  |
| Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates.   | Distinguish between regular and irregular polygons based on reasoning about equal sides and angles   |  |
| Year 5: Fractions (including decimals and percentages)   | Year 5: Position and Direction   |  |
| Compare and order fractions whose denominators are all multiples of the same number  | 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. |  |
| Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths   | Year 5: Statistics   |  |
| Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number [for example, 2/5 + 4/5 = 6/5 = 1] | Solve comparison, sum and difference problems using information presented in a line graph  |  |
| Add and subtract fractions with the same denominator and denominators that are multiples of the same number  | Complete, read and interpret information in tables, including timetables.  |  |

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