## The Piggott School: Charvil Primary

'Go and do Likewise' Luke 10:25, -37 The Parable of the Good Samaritan
We live with love and compassion, seeking help in times of need

### Curriculum Map: Maths Year 6

### Long Term Plan

| Autumn | Spring | Summer |
|---|---|---|
| Investigating Number Systems | Reasoning with Fractions | KS2 Test Preparation |
| Pattern Sniffing | Discovering Equivalence: Decimals and Percentages | Mathematical Explorations |
| Exploration, Calculation and Generalising Arithmetic (Addition, Subtraction, Multiplication and Division) | Patterns in Shape, Statistics and Sequences | |

### Content Declarative Knowledge 'I know' and Skills Procedural Knowledge 'I know how to'

| Number | | | | Measurement | Geometry | | Statistics | Ratio & Proportion | Algebra |
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| Number and Place Value | Addition and Subtraction | Multiplication and Division | Fractions, Decimals & Percentages | | Properties of Shapes | Position & Direction | | | |
| -read, write, order and compare numbers up to 10 000 000 and determine the value of each digit | perform mental calculations, including with mixed operations and large numbers | multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication | use common factors to simplify fractions; use common multiples to express fractions in the same denomination | solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places | draw 2-D shapes using given dimensions and angles | describe positions on the full coordinate grid (all four quadrants) | interpret and construct pie charts and line graphs and use these to solve problems | solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication | use simple formulae |

| round any whole number to a required degree of accuracy | solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why | divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context | compare and order fractions, including fractions > 1 | use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to three decimal places | recognise, describe and build simple 3-D shapes, including making nets | draw and translate simple shapes on the coordinate plane, and reflect them in the axes | calculate and interpret the mean as an average | solve problems involving the calculation of percentages [for example, of measures, and such as 15% of 360] and the use of percentages for comparison | generate and describe linear number sequences |
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|  |  |  |  | where appropriate |  |  |  | and division facts |  |
| use negative numbers in context, and calculate intervals across zero | use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy | divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders | add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions | convert between miles and kilometres | compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons |  |  | solve problems involving similar shapes where the scale factor is known or can be found | express missing number problems algebraically |

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| | | according to the context | | | | | | | |
| solve number and practical problems that involve all of the above | | identify common factors, common multiples and prime numbers | multiply simple pairs of proper fractions, writing the answer in its simplest form [for example, 1/4 × 1/2 = 1/8] | recognise that shapes with the same areas can have different perimeters and vice versa | illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius | | | solve problems involving unequal sharing and grouping using knowledge of fractions and multiples | find pairs of numbers that satisfy an equation with two unknowns |
| | | use their knowledge of the order of operations to carry out calculations involving the four operations | divide proper fractions by whole numbers [for example, 1/3 ÷ 2 = 1/6] | recognise when it is possible to use formulae for area and volume of shapes | recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles. | | | | enumerate possibilities of combinations of two variables |
| | | solve problems involving addition, subtraction, multiplication and division | associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example, 3/8 ] | calculate the area of parallelograms and triangles | | | | | |

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| | | | identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places | calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm³) and cubic metres (m³), and extending to other units [for example, mm³ and km³] | | | | |
| | | | multiply one-digit numbers with up to two decimal places by whole numbers | | | | | |
| | | | use written division methods in cases where the answer has up to two decimal places | | | | | |
| | | | solve problems which require answers to be rounded to specified degrees of accuracy | | | | | |

| | | | recall and use equivalences between simple fractions, decimals and percentages, including in different contexts | | | | | | |
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## Vocabulary

| Number and place value | Addition and subtraction | Multiplication and division | Geometry (position and direction) | Geometry (properties of shape) | Fractions, decimals and percentages | Algebra | Data/statistics |
|---|---|---|---|---|---|---|---|
| Numbers to ten million | Order of operations | Order of operations Common factors, common multiples | Four quadrants (for coordinates) | Vertically opposite (angles) Circumference, radius, diameter | Degree of accuracy Simplify | Linear number sequence Substitute Variables Symbol Known values | Mean Pie chart Construct |