| St. Benet's RC Primary School |
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| **Mathematics National Curriculum Overview 2014** |

Maths is a creative and highly interconnected discipline; it is essential to every day life.

A high quality maths education provides a foundation for:
- understanding the world;
- the ability to reason mathematically;
- a sense of enjoyment and curiosity.

The National Curriculum for Mathematics aims to ensure that all pupils;
- become fluent in the fundamentals of maths, through varied and frequent practice with increasingly complex problems over time;
- have a quick recall and solid conceptual understanding to enable them to apply their knowledge rapidly and accurately;
- can reason mathematically following a line of enquiry, conjecturing relationships and generalisations;
- are able to develop an argument, justification or proof using mathematical language;
- can solve problems by applying their mathematics to routine and non routine problems; persevering in seeking solutions.

The National Curriculum for Mathematics highlights the importance of spoken language in pupils' development in order to develop cognitively, socially and linguistically. Pupils should:
- hear and speak quality and varied language in order to develop their own mathematical vocabulary;
- confidently present mathematical justification, argument and proof;
- be assisted in making their thinking clear to themselves as well as to others;
- build firm foundations for learning through being probed by skilled teacher questioning;
- have misconceptions remedied by teachers quickly.

| Spoken Language | |
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| Pupils should be taught to: | <ul><li>Listen and respond appropriately to adults and peers</li><li>Ask relevant questions to build vocabulary, understanding and knowledge</li><li>Articulate and justify answers, arguments and opinions</li><li>Give well structured descriptions and explanations</li><li>Maintain attention and participate in collaborative discussions, initiating and responding to comments</li><li>Use spoken language to speculate, hypothesise, imagine and explore ideas</li><li>Speak audibly and with an increasing command of standard English</li><li>Participate in discussions, presentations, performances and debates</li><li>Gain, maintain and monitor the interest of the listener</li><li>Consider and evaluate different viewpoints</li><li>Select and use appropriate registers for effective communication</li></ul> |

# Y1 Progression across the year

| Mental and Oral | Number and place value | Addition and Subtraction | Multiplication and Division | Fractions | Measures | Geometry: properties of shape | Geometry: position, direction, motion |
|---|---|---|---|---|---|---|---|
| **Addition and subtraction**<br>♦ know number pairs with a total of 10<br>♦ know what to add to a single digit to make 10<br>♦ know addition facts for totals to at least 5<br>♦ know addition doubles for all numbers to at least 10<br>♦ know that addition can be reordered<br><br>♦ **Multiplication and division**<br>♦ know doubles of all numbers to 10<br>♦ know odd and even numbers to 20<br>♦ know multiplication facts for 10 x tables and corresponding division facts<br><br>♦ **Counting**<br>♦ Count forward & backwards in 1s within 100<br>♦ Count forward & backwards in 2s within 100<br>♦ Count forward & backwards in 10s within 100 | ♦ I can count to and across 100 beginning with 0 or 1<br>♦ I can count read and write numbers to 100 in numerals<br>♦ I can count in different multiples including 1s, 2s, 5s and 10s to 100<br>♦ I can give one more or less than a given number<br>♦ I can identify and represent numbers using concrete objects and pictorial representations, including the number line<br>♦ I can use the language of equal to, more than, less than, fewer, most, least<br>♦ I can read and write numbers from 1-20 in digits and words | ♦ I can read, write and understand mathematical statements involving addition (+), subtraction(-), equals (=)<br>♦ I can represent and use number bonds to 20 and related subtraction facts within 20<br>♦ I can add and subtract one digit and two digit numbers to 20, including zero<br>♦ I can solve simple one step problems involving addition and subtraction, using concrete objects and pictorial representations<br>♦ I can solve missing number calculations | ♦ I can group and share small quantities<br>♦ I can understand multiplication as doubling and division as halving<br>♦ I can find simple fractions of objects, numbers and quantities<br>♦ I can use an array and link it to a number pattern and counting in 2s, 5s and 10s | ♦ I can recognise a half of two equal parts of a whole object, shape or quantity<br>♦ I can recognise a quarter of four equal parts of a whole object, shape or quantity<br>♦ I can combine halves and quarters to make a whole | ♦ I can compare, describe and solve problems for heights and lengths<br>♦ I can compare, describe and solve problems for mass or weight<br>♦ I can compare, describe and solve problems for capacity or volume<br>♦ I can compare, describe and solve problems for time<br>♦ I can use the language to compare (long, longer, short, shorter, tall, double, half, heavy, light, heavier than, lighter than, full, empty, more than, less than, quarter, quicker, slower, earlier, later)<br>♦ I can measure and begin to record using standard units for length, height, mass, capacity and time (hours, minutes, seconds)<br>♦ I can tell the time to the hour and half hour<br>♦ I can recognise and know the value of different denominations of coins and notes<br>♦ I can sequence events in chronological order using before, after, next, first, today, yesterday, tomorrow, morning, afternoon and evening, weeks, months, years | ♦ I can recognise and name common 2D and 3D shapes<br>♦ I can relate shapes in the environment to my knowledge of 2D and 3D shape<br>♦ I can recognise shapes in different orientations and sizes | ♦ I can order and arrange objects and shapes in patterns<br>♦ I can copy patterns<br>♦ I can describe patterns<br>♦ I can describe position, direction and movement including half, quarter and three quarters<br>♦ I can make turns in a clockwise direction<br>♦ I can use the language of left, right, top, middle, bottom, on tp of, in front of, above, between, around, near, close, far, up, down, forwards, backwards, inside, outside |

# Y2 Progression across the year

| Mental and Oral | Number and place value | Addition and Subtraction | Multiplication and Division | Fractions | Measures | Geometry: properties of shape | Statistics |
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| **Addition and subtraction**<br>• know addition and subtraction facts for all numbers to at least 10<br>• know number pairs with totals to 20<br>• know all pairs of multiples of 10 with totals to 100<br>• know what needs to be added to any 2 digit number to make the next multiple of 10<br>• know addition doubles for all numbers to 20<br>• reorder addition to be successful<br>•<br><br>• **Multiplication and division**<br>• know doubles of all numbers to 20 and corresponding halves<br>• know doubles of multiples of 10 to 50 and corresponding halves<br>• know multiplication facts for 2 and 5 x tables and corresponding division facts<br>• know odd and even numbers to 100<br><br>• **Counting**<br>• Count forward & backwards in 5s within 60<br>• Count forward & backwards in 2s within 100<br>• Count forward & backwards in 10s within 200 | • I can count in steps of 2,3 and 5 from 0 across 100<br>• I can recognise odd and even numbers<br>• I can count in tens from any number, forwards and backwards<br>• I can recognise the place value of each digit in a two digit number (tens and ones)<br>• I can identify, represent and estimate numbers using different representations, including a number line<br>• I can compare and order numbers from 0 to 100 using ‹ › = signs | • I can solve simple one step problems with addition and subtraction<br>• I can use concrete objects and pictorial representations including those involving numbers, quantities and measures<br>• I can use mental and written methods to solve problems<br>• I can recall and use addition and subtraction facts to 20 fluently and derive and use related facts to 100.<br>• I can add and subtract a two digit number and ones<br>• I can add and subtract a two digit number and tens<br>• I can add and subtract two two digit numbers<br>• I can add three one digit numbers | • I can  calculate x and ÷ within the times tables and write the calculation using the x, ÷ and = signs<br>• I can recognise and use the inverse of x and ÷<br>• I can show that multiplication is commutative, done in any order, and that division is not.<br>• I can solve simple single step problems using arrays, repeated addition, mental methods, multiplication and division facts<br>• I can use division and multiplication to find more complex fractions of objects, numbers and quantities | • I can recognise, find name and write fractions ½, 1/3,1/4, 2/4, 3/4 of a length, shape, set of objects or quantity<br>• I can write simple fractions eg ½ of 6 = 3<br>• I know that 2/4 = ½<br>• I can count in fractions up to 10 from any number, using the ½ and 2/4 equivalence on the number line eg 1 ¼, 1 2/4 (1 ½), 1 ¾, 2 | • I can choose equipment to measure with<br>• I can choose units to measure in<br>• I can order and compare lengths, mass, volume/capacity and record the results using ‹, › =<br>• Read relevant scales to the nearest numbered unit<br>• I can use the symbols for (£)pounds and pence (p)<br>• I can combine amounts to make a total and match different combinations of coins to the same amounts<br>• I can add and subtract money of the same units<br>• I can give change<br>• I can solve problems in the context of money<br>• I can combine and sequence intervals of time<br>• I can tell and write the time in 5 minute intervals; including quarter to and past | • I can order and create patterns<br>• I can use language to describe position, direction and movement, distinguishing between a rotation and right angle turns, clockwise and anticlockwise and movement in a straight line<br><br>Geometry: properties of shape<br><br>• I can identify and describe the properties of 2D shapes, including number of sides and symmetry<br>• I can identify and describe properties of 3D shapes including edges, vertices and faces<br>• I can identify 2D shapes on the surface of 3D shapes<br>• I can compare and | • I can interpret and construct simple pictograms, tally charts, block diagrams and simple tables<br>• I can ask and answer simple questions about the data |

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| ◆ Count forward & backwards in 3s within 36 | | | | | | sort common 2D and 3D shapes and everyday objects | |

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| Y3 Progression across the year | | | | | | | |
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| Mental and Oral | Number, place value and rounding | Addition and Subtraction | Multiplication and Division | Fractions | Measures | Geometry: properties of shape | Statistics |
| **Addition and subtraction**<br>◆ know addition and subtraction facts for all numbers to 20<br>◆ know sums and differences of multiples of 10<br>◆ know pairs of two digit numbers with a total of 100<br>◆ know addition doubles for multiples of 10 to 100<br>◆ recognise doubles in calculations where there are more than 2 numbers to total<br>**Multiplication and division**<br>◆ Know multiplication facts for 3, 4 and 8 x table and corresponding division facts<br>◆ Know doubles of multiples of 10 to 100<br>**Counting**<br>◆ Count forward & backwards in 5s within 100<br>◆ Count forward & backwards in 2s within 1000<br>◆ Count forward & backwards in 10s within | ◆ I can count from 0 in 4s, 8s, 50s, and 100<br>◆ I can find 10 more or less<br>◆ I can find 100 more or less<br>◆ I can recognise the place value in a three digit number<br>◆ I can compare and order numbers to 1000<br>◆ I can identify, represent and estimate numbers using different representations<br>◆ I can read and write numbers to at least 1000 in numerals and words<br>◆ I can solve number problems and practical problems | ◆ I can add and subtract numbers mentally including a 3digit plus ones number<br>◆ I can add and subtract numbers mentally including a 3digit plus tens number<br>◆ I can add and subtract numbers mentally including a 3digit plus hundreds number<br>◆ I can add and subtract numbers with up to 3 digits, using an efficient method such as column addition and subtraction<br>◆ I can estimate the answer to a calculation and use the inverse to check answers<br>◆ I can solve problems, including missing number problems, using number facts, | ◆ I can recall multiplication facts for the 3, 4 and 8 times table<br>◆ I can write and calculate mathematical statements for multiplication and division using the multiplication tables that they know<br>◆ I can work out new facts from given facts<br>◆ I can calculate a two digit x a single digit mentally<br>◆ I can divide a two digit by a single digit<br>◆ I can use a written method for multiplication and division, progressing to short multiplication and division<br>◆ I can solve missing number problems using multiplication and division including | ◆ I can count up and down in tenths<br>◆ I understand that a tenth is the part derived from dividing a whole into 10 equal parts<br>◆ I can recognise, find and write fractions with small denominators<br>◆ I can make links with simple equivalent fractions and compare size of simple fractions between 0 and 1<br>◆ I understand the relationship between unit fractions as an operator and division by integers<br>◆ I can add and subtract fractions with the same denominator within a whole eg 5/7 + 1/7<br>◆ I can recognise fractions in the | ◆ I can measure, compare, add and subtract lengths(m,cm,mm), mass (kg/g) and volume and capacity (l/ml)<br>◆ I can measure the perimeter of simple 2D shapes<br>◆ I can add and subtract amounts of money to give change, using £ and p<br>◆ I can tell and write the time from an analogue clock, including Roman numerals from 1 to X11, and 12/ 24 hr clock<br>◆ I can estimate and read time with increasing accuracy to the nearest minute<br>◆ I can record and compare time in seconds, minutes, hours and o clock<br>◆ I can use the vocabulary of am/pm/morning, afternoon, noon and midnight | ◆ I can 2D shapes and make 3D shapes using modelling materials<br>◆ I can recognise 3D shapes in different orientations and describe them with increasing accuracy<br>◆ I can recognise angles as a property of shape and as a way of turning<br>◆ I can identify right angles, recognising that 2 right angles make a half turn and three make ¾ of a turn and 4 make a full turn.<br>◆ I can identify where angles are greater than or less than a right angle<br>◆ I can identify horizontal, vertical, perpendicular and parallel lines | ◆ I can interpret and present data using bar charts, pictograms and tables<br>◆ I can solve one step and two step problems using information in the charts<br>◆ I can interpret simple scales in 2,5 and 10 units with increasing accuracy |

| | | place value and more complex addition and subtraction | scaling problems<br>♦ I can solve correspondence problems eg 3 hats and 4 coats…how many outfits | context of parts of a whole, numbers, measurements, a shape as well as a division of a quantity | ♦ I know the number of seconds in a minute and the number of days in each month, year and leap year<br>♦ I can compare duration of events to calculate word problems | | |
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| 1000<br>♦ Count forward & backwards in 3s within 100<br>♦ Count forward & backwards in 4s within 48<br>♦ Count forward & backwards in 8s within 96<br>♦ Count forwards and backwards in halves | | | | | | | |

## Y4 Progression across the year

| Mental and Oral | Number, place value and rounding | Addition and Subtraction | Multiplication and Division | Fractions | Measures | Geometry: properties of shape | Statistics |
|---|---|---|---|---|---|---|---|
| **Addition and subtraction**<br>♦ know sums and differences of pairs of multiples of 10, 100 and 1000<br>♦ know addition doubles of numbers 1-100<br>♦ recognise near doubles in calculations and use them<br>♦ know what must be added to any three digit number to make the next multiple of 100<br>♦ know pairs of fraction that total 1<br><br>**Multiplication and division**<br>♦ Know multiplication facts for 7, 8 and 9 x and corresponding division facts<br>♦ Know doubles of numbers 1 to 100<br>♦ Know doubles of multiples of 10 and 100 and corresponding halves<br>♦ Know fractions and decimal equivalents of one half, quarters, tenths and hundredths<br>♦ Know factor pairs for known multiplication facts<br><br>**Counting**<br>♦ Count forward & backwards in 3s within 1000 and beyond 0<br>♦ Count forward & | ♦ I can count in multiples of 6,7 9, 25 and 1000<br>♦ I can find 1000 more and 1000 less than a given number<br>♦ I can count backwards through 0 to include negative numbers<br>♦ I can recognise the place value in a four digit number<br>♦ I can order and compare numbers beyond 1000<br>♦ I can identify, represent and estimate numbers using different representations<br>♦ I can round any number to nearest 10,100, 1000<br>♦ I can solve number and practical problems that involve all of the above and with | ♦ I can add and subtract numbers up to 4 digits using the efficient methods of column method<br>♦ I can estimate and use inverse operations to check answers to a calculation<br>♦ I can solve addition and subtraction two step problems in contexts, deciding which operation and methods to use and why | ♦ I can recall multiplication and division facts for multiplication tables up to 12 x 12<br>♦ Use place value, known and derived facts to multiply and divide mentally including multiplying by 1 and 0, dividing by 1 and 0, multiplying together three numbers<br>♦ I can recognise and use factor pairs and commutativity in mental calculations<br>♦ I can multiply and divide two and three digit numbers by a single digit number using a formal written method<br>♦ I can solve problems using multiplication and division including the distributive law ie 39 x 7 is the same as 30 x 7 and 9 x7 and harder problems eg where 10 cakes would be shared between 3 children equally | ♦ I can count up and down in 100ths and know how a 100th is derived<br>♦ I can solve problems using fractions of measures and wholes<br>♦ I can identify and name and write equivalent fractions including tenths and hunderedths<br>♦ I can add and subtract fractions with the same denominator<br>**Decimals & Fractions**<br>♦ I can recognise and write decimal equivalents of any tenths or hundredths number<br>♦ I can recognise and write decimal equivalents to $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$<br>♦ I can 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 units, tenths and hundredths | ♦ I can convert between units of metric measure<br>♦ I can measure & calculate perimeter of a rectilinear shape<br>♦ I can find the area by counting<br>♦ I can estimate, compare and calculate different measures including money in pounds and pence<br>♦ I can read, write and convert time between analogue and digital 12 and 24 hr clocks<br>♦ I can solve problems | ♦ I can compare and classify geometric shapes, including quadrilaterals and triangles, based on size and properties<br>♦ I can identify acute and obtuse angles and compare and order angles up to two right angles by size<br>♦ I can identify lines of symmetry in 2D shapes presented in different orientations<br>♦ I can complete a simple symmetric figure with respect to a line of symmetry<br>**Geometry: position, direction, motion**<br>♦ I can describe positions on a 2D grid as coordinates in the first quadrant<br>♦ I can describe movements between positions as | ♦ I can interpret and present discrete data using bar charts and continuous data using line graphs<br>♦ I can compare data using sum, difference etc using information presented in bar charts, pictograms, tables and simple line graphs<br>♦ I can read a range of scales |

| Mental and Oral | Number, place value and rounding | Addition and Subtraction | Multiplication and Division | Fractions | Measures | Geometry: properties of shape | Statistics |
|---|---|---|---|---|---|---|---|
| backwards in 4s within 100 and beyond 0 ◆ Count forward & backwards in 6s within 100 and beyond 0 ◆ Count forward & backwards in 7s within 84 and beyond 0 ◆ Count forward & backwards in 8s within 96 and beyond 0 ◆ Count forward & backwards in 9s within 108 and beyond 0 ◆ Count forwards and backwards in unit fractions | increasingly large numbers ◆ I can read Roman numerals to 100 (C) | | | ◆ I can round decimals with one decimal place to the nearest whole number ◆ I can compare numbers with the same number of decimal places up to two decimal places ◆ I can solve simple measure and money problems involving fractions and decimals to two dp | converting time to minutes, minutes to seconds, years to months, weeks to days | translations of a given unit to the left/right, up/down ◆ I can plot specified points and draw sides to complete a given polygon | |

## Y5 Progression across the year

| Mental and Oral | Number, place value and rounding | Addition and Subtraction | Multiplication and Division | Fractions | Measures | Geometry: properties of shape | Statistics |
|---|---|---|---|---|---|---|---|
| **Addition and subtraction facts** ◆ know sums and differences of decimals ◆ know doubles and halves of decimals ◆ know what must be added to any four digit number to make the next multiple of 1000 ◆ know what must be added to a decimal with units and tenths to make the next whole number  **Multiplication and division** ◆ know squares of numbers to 10 x 10 ◆ know division facts corresponding to known multiplication facts and related unit fractions eg 1/9 of 63 =7 and 1/7 of 63 =9 ◆ know percentage equivalents of one half, | ◆ I can read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit ◆ I can count forwards and backwards in steps of powers of 10 for any given number up to 1 000 000 ◆ I can interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers through zero | ◆ I can add and subtract whole numbers with more than 4 digits, including efficient column methods ◆ I can add and subtract mentally, with increasingly large numbers ◆ I can use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy ◆ I can solve addition and subtraction | ◆ I can identify multiples and factors including all factor pairs ◆ I can solve problems involving multiplication and division where larger numbers are used by decomposing them into factors ◆ I know and use the vocabulary of prime numbers, prime factors and composite (non prime ) numbers ◆ I can establish whether a number less than 100 is prime and recall number to 19 that are prime ◆ I can multiply numbers up to 4 digits by single or two digit number using an efficient method, including long multiplication ◆ I can multiply and divide mentally, drawing on known facts ◆ I can divide up to 4 digits | ◆ I can compare and order fractions whose denominators are all multiples of the same number ◆ I recognise mixed numbers and improper fractions and convert from one to another ◆ I can add and subtract fractions with the same denominator and related fractions ◆ I can write mathematical statements >1 as a mixed number ◆ I can multiply proper fractions and mixed numbers by whole numbers, supported by diagrams and materials  **Decimals & Fractions** ◆ I can read and write decimal numbers as fractions ◆ I can recognise and use thousandths and relate to tenths, hundredths and decimal equivalents ◆ I can round decimals with two | ◆ I can convert between different units of metric measure ◆ I can understand and use basic equivalences between metric and common imperial ◆ I can measure and calculate the perimeter of composite rectilinear shapes in cm and m ◆ I can calculate and compare the area of squares and rectangles using standard units and estimate the area of irregular | ◆ I can identify 3D shapes including cubes and cuboids from 2D representations ◆ I know angles are measured in degrees; I can estimate, measure, draw and compare angles and use the °degrees sign. ◆ I can identify multiples of 90° ◆ I can identify angles at a straight line as being 180° and a full turn as 360° ◆ I can recognise reflex angles ◆ I can draw shapes using given dimensions and angles ◆ I can state and use the properties of a rectangle, including | ◆ I can solve comparison, sum and difference problems using information presented in line graphs ◆ I can complete, read and interpret information in tables, including timetables |

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| one quarter, three quarters, tenths and hundredths<br>♦ know factor pairs to 100<br><br>**Counting**<br>♦ count forwards and backwards in decimals to one dp and fractions<br>♦ count forwards and backwards in mixed numbers<br>♦ Count forwards and backwards in all regular steps beyond 0 | ♦ I can round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000<br>♦ I can solve number problems involving the above<br>♦ I can read Roman numerals to 1000 (M) and recognise years written in Roman numerals | multi step problems making decisions about which method and why | by a single digit using an efficient method of short division, interpreting remainders contextually<br>♦ I can multiply and divide whole numbers and decimals by 10, 100, and 1000<br>♦ I can recognise squared numbers and cubed numbers and recognise the associated notation<br>♦ I can solve problems using division and multiplication, addition and subtraction, recognising the true meaning of the equals sign<br>♦ I can use multiplication and division for scaling and simple rates problems | decimal places to the nearest whole number and to one dp<br>♦ I can read, write, order and compare numbers with up to 3dp<br>♦ I can solve problems with up to 3dp<br>**Percentages, Decimals & Fractions**<br>♦ I can recognise the % symbol and understand what a percent is<br>♦ I can write a % as a fraction with a denominator of 100 and as a decimal fraction<br>♦ I can solve problems with percentages and decimal equivalents of ½, 1/4., 1/5, 2/5 and 4/5 | shapes<br>♦ I can recognise and estimate volume and capacity<br>♦ I can solve problems involving converting between units of time<br>♦ I can solve problems using addition and subtraction of measures using decimal notation | squares<br>♦ I can distinguish between regular and irregular polygons based on reasoning about equal sides and angles<br><br>**Geometry: position, direction, motion**<br>♦ I can identify, describe and represent the position of a shape following a reflection or translation and know that the shape hasn't changed | |

| Y6 Progression across the year | | | | | | |
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| Mental and Oral | Number, place value and rounding | Addition and Subtraction Multiplication and Division | Fractions | Measures | Geometry: properties of shape | Statistics |
| **Addition and subtraction**<br>♦ know addition and subtraction facts for multiples of 10 to 1000 and decimal numbers with one decimal place<br>♦ know what must be added to a decimal with units, tenths and hundredths to make the next whole number<br><br>**Multiplication and division**<br>♦ know squares to 12 x 12<br>♦ know squares of the corresponding | ♦ I can read, write, order and compare numbers up to 10 000 000 and determine the value of each digit<br>♦ I can round any number to a degree of accuracy<br>♦ I can use negative numbers in | ♦ I can multiply multi digit numbers up to 4 digits x 2 digits using the efficient written method of long multiplication<br>♦ I can divide numbers up to 4 digits by a whole 2 digit number using the efficient written method of long division and interpreting the remainder as a fraction or rounding or in context as appropriate<br>♦ I can perform mental calculations with mixed | ♦ I can use common factors to simplify fractions; use common multiples to express fractions in the same denomination<br>♦ I can compare and order fractions including fractions greater than 1<br>♦ I know fractions are linked to division and can change a fraction to a decimal fraction through division<br>♦ I can add and subtract fractions with different denominators and mixed numbers<br>♦ I can multiply simple pairs of proper fractions, writing the answer in it's lowest terms e.g ¼ x ½ = 1/8<br>♦ I can divide proper fractions by whole numbers e.g 1/3 ÷ 2 = 1/6<br>**Decimals & Fractions**<br>♦ I can identify the value of each digit to three decimal places<br>♦ I can multiply and divide numbers by 10,100,1000 | ♦ I can solve problems involving the calculation and conversion of units of measure, using decimal notation to three dp where appropriate<br>♦ I can use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a | ♦ I can recognise, describe and build simple 3D shapes, including making my own nets<br>♦ I can compare and classify geometric shapes based on their properties, size and angles<br>♦ I can find missing angles in any triangle, quadrilateral and regular polygon<br>♦ I can illustrate all the | ♦ I can interpret and construct pie charts and line graphs and use these to solve problems<br>♦ I can calculate and interpret the mean as an average |

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| multiples of 10<br>♦ Know prime numbers less than 100<br>♦ Know equivalent fractions, decimals and percentages for hundredths<br><br>**Counting**<br>♦ count forwards and backwards in decimals to two dp and fractions<br>♦ count forwards and backwards in mixed numbers with increasing confidence<br>♦ Count forwards and backwards in all regular steps beyond 0 | context and calculate intervals across 0<br>♦ I can solve number problems and practical problems that involve the above | operations and large numbers<br>♦ I can identify common factors, common multiples and prime numbers<br>♦ I can use the knowledge of the order of operations to carry out a calculation<br>♦ I can solve addition and subtraction problems deciding which operations to use and why<br>♦ I can solve problems using addition, subtraction, multiplication and division<br>♦ I can estimate to check answers to calculations and determine levels of accuracy | where the answers are up to three decimal places<br>♦ I can multiply one digit numbers with up to two decimal places by whole numbers<br>♦ I can use written division methods in cases where the answer has up to two decimal places<br>♦ I can solve problems which require answers to be rounded to specified degrees of accuracy<br>**Percentages, Decimals & Fractions**<br>♦ I can solve problems involving the calculation of percentages of whole numbers or measures such as 15% of 360<br>♦ I can use percentages to compare<br>♦ I can recall and use equivalences between simple fractions, decimals and percentages, including in different contexts<br>**Ratio and proportion**<br>♦ I can solve problems involving the relative sizes of two quantities, including similarities<br>♦ I can solve problems involving unequal sharing and grouping<br>**Algebra**<br>♦ I can express missing number problems algebraically<br>♦ I can use simple formulae expressed in words<br>♦ I can generate and describe linear number sequences<br>♦ I can find pairs of numbers that satisfy number sentences involving two unknowns | smaller unit of measure to a larger unit and vice versa using decimal notation to three dp<br>♦ I can convert between KM and miles<br>♦ I can recognise that shapes with the same areas can have different perimeters and vice versa<br>♦ I can calculate the area of parallelograms and triangles<br>♦ I can use the formulae for finding the area and volume of shapes<br>♦ I can calculate, estimate and compare volume of cubes and cuboids using standard units (cm3), (m3), (mm3), (km3) | parts of a circle, e.g radius, diameter and circumference<br>♦ I can find unknown angles where they meet at a point, on a straight line and are vertically opposite<br>Geometry: position, direction, motion<br>♦ I can describe positions on the full coordinate grid (all four quadrants)<br>♦ I can draw and translate simple shapes on the coordinate plane and reflect them in the axes | |