

| Term: Spring Maths Medium Term Plan | | |
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| NC Objectives | Key Knowledge | Vocabulary |
| <p>EYFS</p> <p>Alive in 5</p> <ul style="list-style-type: none"> • Introduce zero • Find 0 to 5 • Subitise 0 to 5 • Represent 0 to 5 • 1 more • 1 less • Composition • Conceptual subitising to 5 <p>Mass and capacity</p> <ul style="list-style-type: none"> • Compare mass • Find a balance • Explore capacity • Compare capacity <p>Growing 6,7,8</p> <ul style="list-style-type: none"> • Find 6, 7 and 8 • Represent 6, 7 and 8 • 1 more • 1 less • Composition of 6, 7 and 8 • Make pairs-odd and even • Double to 8 (find a double) • Double to 8 (make a double) • Combine 2 groups • Conceptual subitising <p>Length and time</p> <ul style="list-style-type: none"> • Explore length • Compare length • Explore height | <ul style="list-style-type: none"> • Explore the composition of numbers to 10. • Understand the ‘one more than/one less than’ relationship between consecutive numbers. • Compare numbers. • Have a deep understanding of number to 10, including the composition of each number • Subitise (recognise quantities without counting) up to 5; - • Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts. • Verbally count beyond 20, recognising the pattern of the counting system • Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity • Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally. • Select, rotate and manipulate shapes to develop spatial reasoning skills. • Compose and decompose shapes so that children recognise a shape can have other shapes within it, just as numbers can • Continue, copy and create repeating patterns. | <p>Number Zero, number, one, two, three ... to twenty and beyond, teens numbers, eleven, twelve ... twenty, none, how many ...? count, count (up) to, count on (from, to), count back (from, to) Count in ones, is the same as, more, less, odd, even, few, pattern, pair</p> <p>Place value Ones, tens, digit, the same number as, as many as, more, larger, bigger, greater, fewer, smaller, less, fewest, smallest, least, most, biggest, largest, greatest, one more, ten more one less, ten less, compare, order, size, first, second, third...twentieth, last, last but one before, after, next, between</p> <p>Addition and subtraction add, more, and, make, sum, total, altogether double, one more, two more ... ten more how many more to make ...? how many more is ... than ...? how much more is ...? take away how many are left/left over? how many have gone? one less, two less, ten less ... how many fewer is ... than ...? how much less is ...? difference between</p> <p>Multiplication and division Sharing, doubling, halving, number patterns</p> <p>MEASUREMENT Measure, size, compare, guess, estimate, enough, not enough, too much, too little too many, too few, nearly, close to, about the same as, just over, just under</p> <p>Length</p> |

- Compare height
- Talk about time
- Order and sequence time

Building 9 and 10

- Find 9 and 10
- Compare numbers to 10
- Represent 9 and 10
- Conceptual subitising to 10
- 1 more
- 1 less
- Composition to 10
- Bonds to 10 (2 parts)
- Make arrangements of 10
- Bonds to 10 (3 parts)
- Doubles to 10 (find a double)
- Doubles to 10 (make a double)
- Explore even and odd

Explore 3 D shapes

- Recognise and name 3-D shapes
- Find 2-D shapes within 3-D shapes
- Use 3-D shapes for tasks
- 3-D shapes in the environment
- Identify more complex patterns
- Copy and continue patterns
- Patterns in the environment

Metre, length, height, width, depth, long, short, tall, high, low, wide, narrow, thick, thin longer, shorter, taller, higher ... and so on longest, shortest, tallest, highest ... and so on, far, near, close

Weight

weigh, weighs, balances, heavy, light, heavier than, lighter than, heaviest, lightest, scales

Capacity and volume

Full, empty, half full, holds, container,

Time

Time, days of the week, Monday, Tuesday ... day, week, birthday, holiday, morning, afternoon, evening, night, bedtime, dinner time, playtime, today, yesterday, tomorrow before, after, next, last, now, soon, early, late quick, quicker, quickest, quickly, slow, slower, slowest, slowly, old, older, oldest, new, newer, newest, takes longer, takes less time, hour, o'clock, clock, watch, hands

Money

Money, coin, penny, pence, pound, price, cost buy, sell, spend, spent, pay

Properties of shape

shape, pattern, flat, curved, straight, round hollow, solid, sort, make, build, draw, size, bigger, larger, smaller, symmetrical, pattern, repeating pattern, match

2-D shape

corner, side, rectangle (including square) circle, triangle

3-D shape

face, edge, vertex, vertices, cube, pyramid sphere, cone

Position and direction

Position, over, under, above, below, top, bottom, side, on, in, outside, inside, around

in front, behind, front, back, beside, next to opposite, apart, between, middle, edge, corner, direction, left, right, up, down, forwards, backwards, sideways, across, next to, close, near, far, along, through, to, from, towards, away from, movement, slide, roll, turn, stretch, bend, whole turn, half turn

STATISTICS

count, sort, group, set, list

GENERAL

Pattern, puzzle, what could we try next? how did you work it out? Recognise, describe draw,

Year 1

Place Value (within 20)

- Count within 20
- Understand 10
- Understand 11, 12 and 13
- Understand 14, 15 and 16
- Understand 17, 18 and 19
- Understand 20
- 1 more and 1 less
- The number line to 20
- Use a number line to 20
- Estimate on a number line to 20
- Compare numbers to 20
- Order numbers to 20

Place Value (within 50)

- Count from 20 to 50
- 20, 30, 40 and 50
- Count by making groups of tens
- Groups of tens and ones
- Partition into tens and ones
- The number line to 50
- Estimate on a number line to 50
- 1 more, 1 less

- Count to and across 100, forwards and backwards, beginning with zero or 1, or from any given number
- Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least
- Count, read and write numbers to 100 in numerals; count in multiples of 2s, 5s and 10s
- Read and write numbers from 1 to 20 in numerals and words
- Count, read and write numbers to 100 in numerals; count in multiples of 2s, 5s and 10s
- Given a number, identify 1 more and 1 less
- Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs
- Add and subtract 1-digit and 2-digit numbers to 20, including zero

Ones, tens, digit, the same number as, as many as, more, larger, bigger, greater, fewer, smaller, less, fewest, smallest, least, most, biggest, largest, greatest, one more, ten more one less, ten less, equal to, one more, ten more, one less, ten less, compare order, size, first, second, third... twentieth last, last but one before, after next between half-way between above, below, thirteen, fourteen, fifteen, sixteen.... twenty, thirty, forty, fifty

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| <p>Addition and Subtraction (within 20)</p> <ul style="list-style-type: none"> • Add by counting on within 20 • Add ones using number bonds • Find and make number bonds to 20 • Doubles • Near doubles • Subtract ones using number bonds • Subtraction – counting back • Subtraction – finding the difference • Related facts • Missing number problems <p>Length and height</p> <ul style="list-style-type: none"> • Compare lengths and heights • Measure length using objects • Measure length in centimetres <p>Mass and Volume</p> <ul style="list-style-type: none"> • Heavier and lighter • Measure mass • Compare mass • Full and empty • Compare volume • Measure capacity • Compare capacity | <ul style="list-style-type: none"> • Represent and use number bonds and related subtraction facts within 20 • Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as $7 = ? - 9$ • Recognise and name common 2-D and 3-D shapes, including: 2-D shapes [for example, rectangles (including squares), circles and triangles]; 3-D shapes [for example, cuboids (including cubes), pyramids and spheres] • Compare, describe and solve practical problems for: lengths and height; mass/weight; capacity and volume; time • Measure and begin to record the following: lengths and heights; mass/weight; capacity and volume; time • Compare, describe and solve practical problems for: lengths and heights; mass/weight; capacity and volume; time • Measure and begin to record the following: lengths and heights; mass/weights; capacity and volume; time | <p>Addition, add, more, and make, sum, total, plus, altogether, double, near double half, halve, one more, two more ... ten more, how many more to make ...? how many more is ... than ...? how much more is ...? Subtract, take away, how many are left/left over? how many have gone? one less, two less, ten less ..., how many fewer is ... than ...? how much less is ...?</p> <p>difference between, equals, is the same as, number bonds/pairs, missing number</p> <p>centimetre, metre, length, height, width, depth, long, short, tall, high, low, wide, narrow thick, thin, longer, shorter, taller, higher ... and so on, longest, shortest, tallest, highest ... and so on, far, near, close, ruler, metre stick</p> <p>kilogram, half kilogram, weigh, weighs, balances, heavy, light, heavier than, lighter than, heaviest, lightest, scales, litre, half litre capacity, volume, full, empty, more than, less than, half full, quarter full, holds, container</p> |
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| <p>Year 2</p> <p>Money</p> <ul style="list-style-type: none"> • Count money – pence • Count money – pounds (notes and coins) • Count money – pounds and pence • Choose notes and coins • Make the same amount • Compare amounts of money • Calculate with money • Make a pound • Find change • Two-step problems <p>Multiplication and Division</p> <ul style="list-style-type: none"> • Recognise equal groups • Make equal groups • Add equal groups • Introduce the multiplication symbol • Multiplication sentences • Use arrays • Make equal groups – grouping • Make equal • The 2 times-table • Divide by 2 • Doubling and halving • Odd and even numbers • The 10 times-table • Divide by 10 • The 5 times-table • Divide by 5 • The 5 and 10 times-tables <p>Length and Height</p> <ul style="list-style-type: none"> • Measure in centimetres • Measure in metres | <ul style="list-style-type: none"> • Recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value • Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change <ul style="list-style-type: none"> • Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (\times), division (\div) and equals (=) signs • Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot • Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers <ul style="list-style-type: none"> • Choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature ($^{\circ}$C); capacity (litres/ml) to the | <p>Money, coin, penny, pence, pound, price, cost buy, bought, sell, sold, spend, spent, pay change, dear, costs more, cheap, costs less, cheaper, costs the same as, how much ...? how many ...? Total</p> <p>times once, twice, three times ... ten times repeated addition division dividing, divide, divided by, divided into grouping sharing, share, share equally left, left over one each, two each, three each ... ten each group in pairs, threes ... tens equal groups of doubling halving array row, column number patterns multiplication table multiplication fact, division fact</p> <p>length, height, width, depth, long, short, tall high, low, wide, narrow, thick, thin, longer, shorter, taller, higher ... and so on, longest, shortest, tallest, highest ... and so on, far,</p> |
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| <ul style="list-style-type: none"> • Compare lengths and heights • Order lengths and heights • Four operations with lengths and heights | <p>nearest appropriate unit using rulers, scales, thermometers and measuring vessels</p> <ul style="list-style-type: none"> • Compare and order lengths, mass, volume/capacity and record the results using >, < and = • Solve problems with addition and subtraction using concrete objects and pictorial representations, including those involving numbers, quantities and measures • Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts | <p>further, furthest, near, close, ruler, metre stick, tape measure</p> |
| <p>Mass, Capacity and Temperature</p> <ul style="list-style-type: none"> • Compare mass • Measure in grams • Measure in kilograms • Four operations with mass • Compare volume and capacity • Measure in millilitres • Measure in litres • Four operations with volume and capacity • Temperature • | <ul style="list-style-type: none"> • Choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature (°C); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels • Compare and order lengths, mass, volume/capacity and record the results using >, < and = | <p>kilogram, half kilogram, gram, weigh, weighs, balances, heavy, light, heavier than, lighter than, heaviest, lightest, scales, litre, half litre, millilitre, capacity, volume, full, empty, more than, less than, half full, quarter full, holds, contains, container, temperature, degree</p> |

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| <p>Year 3</p> <p>Multiplication and Division</p> <ul style="list-style-type: none"> • Multiples of 10 • Related calculations • Reasoning about multiplication • Multiply a 2-digit number by a 1-digit number – no exchange • Multiply a 2-digit number by a 1-digit number – with exchange • Link multiplication and division • Divide a 2-digit number by a 1-digit number – no exchange • Divide a 2-digit number by a 1-digit number – flexible partitioning • Divide a 2-digit number by a 1-digit number – with remainders • Scaling Step 11 How many ways? <p>Length and Perimeter</p> <ul style="list-style-type: none"> • Measure in metres and centimetres • Measure in millimetres • Measure in centimetres and millimetres • Metres, centimetres and millimetres • Equivalent lengths (metres and centimetres) • Equivalent lengths (centimetres and millimetres) • Compare lengths • Add lengths • Subtract lengths • What is perimeter? • Measure perimeter • Calculate perimeter <p>Fractions</p> <ul style="list-style-type: none"> • Understand the denominators of unit fractions • Compare and order unit fractions • Understand the numerators of non-unit fractions | <ul style="list-style-type: none"> • Recall and use multiplication facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers (Y2) • Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for 2-digit numbers times 1-digit numbers, using mental and progressing to formal written methods • Solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects <ul style="list-style-type: none"> • Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml) • Measure the perimeter of simple 2-D shapes <ul style="list-style-type: none"> • Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators | <p>Multiplication, multiply, multiplied by, multiple, factor, groups of, times, product once, twice, three times ... ten times, repeated addition, division, dividing, divide, divided by, divided into, left, left over, remainder, grouping, sharing, share, share equally, one each, two each, three each ... ten each, group in pairs, threes ... tens, equal groups of, doubling, halving, array, row, column, number patterns, multiplication table multiplication fact, division fact</p> <p>length, height, width, depth, long, short, tall high, low, wide, narrow, thick, thin, longer, shorter, taller, higher ... and so on, longest, shortest, tallest, highest ... and so on, far, further, furthest, near, close, distance apart ... between ... to ... from, perimeter, ruler metre stick, tape measure</p> <p>Fraction, equivalent fraction, mixed number numerator, denominator, equal part, equal grouping, equal sharing, parts of a whole</p> |
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| <ul style="list-style-type: none"> • Understand the whole • Compare and order non-unit fractions • Fractions and scales • Fractions on a number line • Count in fractions on a number • Equivalent fractions on a number line • Equivalent fractions as bar models <p>Mass and Capacity</p> <ul style="list-style-type: none"> • Use scales • Measure mass in grams • Measure mass in kilograms and grams • Equivalent masses (kilograms and grams) • Compare mass • Add and subtract mass • Measure capacity and volume in millilitres • Measure capacity and volume in litres and millilitres • Equivalent capacities and volumes (litres and millilitres) • Compare capacity and volume • Add and subtract capacity and volume | <ul style="list-style-type: none"> • Compare and order unit fractions, and fractions with the same denominators • Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml) • Recognise and show, using diagrams, equivalent fractions with small denominators <ul style="list-style-type: none"> • Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml) | <p>half, two halves, one of two equal parts, quarter, two quarters, three quarters, one of four equal parts, one third, two thirds, one of three equal parts, sixths, sevenths, eighths, tenths ...</p> <p>Mass, kilogram, half kilogram, gram, weigh, weighs, balances, heavy, light, heavier than, lighter than, heaviest, lightest, scales, litre, half litre, millilitre, capacity, volume, full, empty, more than, less than, half full, quarter full, holds, contains, container</p> |
| <p>Year 4</p> <p>Multiplication and Division</p> <ul style="list-style-type: none"> • Factor pairs • Use factor pairs • Multiply by 10 • Multiply by 100 • Divide by 10 • Divide by 100 • Related facts – multiplication and division • Informal written methods for multiplication • Multiply a 2-digit number by a 1-digit number • Multiply a 3-digit number by a 1-digit number | <ul style="list-style-type: none"> • Recognise and use factor pairs and commutativity in mental calculations • Recall multiplication and division facts for multiplication tables up to 12×12 • Multiply and divide whole numbers and those involving decimals by 10, 100 and 1,000 (Y5) • Multiply and divide whole numbers and those involving decimals by 10, 100 and 1,000 (Y5) • Solve problems involving multiplying and adding, including using the distributive law | <p>Multiplication, multiply, multiplied by multiple, factor, groups of, times product, once, twice, three times ... ten times, repeated addition, division dividing, divide, divided by, divided into left, left over, remainder, grouping sharing, share, share equally, one each, two each, three each ... ten each group in pairs, threes ... tens, equal groups of, doubling, halving, array row, column, number patterns</p> |

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| <ul style="list-style-type: none"> • Divide a 2-digit number by a 1-digit number (1) • Divide a 2-digit number by a 1-digit number (2) • Divide a 3-digit number by a 1-digit number • Correspondence problems • Efficient multiplication <p>Length and Perimeter</p> <ul style="list-style-type: none"> • Measure in kilometres and metres • Equivalent lengths (kilometres and metres) • Perimeter on a grid • Perimeter of a rectangle • Perimeter of rectilinear shapes • Find missing lengths in rectilinear shapes • Calculate perimeter of rectilinear shapes • Perimeter of regular polygons • Perimeter of polygons <p>Fractions</p> <ul style="list-style-type: none"> • Understand the whole • Count beyond 1 • Partition a mixed number • Number lines with mixed numbers • Compare and order mixed numbers • Understand improper fractions • Convert mixed numbers to improper fractions • Convert improper fractions to mixed numbers • Equivalent fractions on a number line • Equivalent fraction families • Add two or more fractions • Add fractions and mixed numbers | <p>to multiply 2-digit numbers by 1 digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects</p> <ul style="list-style-type: none"> • Multiply 2-digit and 3-digit numbers by a 1-digit number using formal written layout • Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together 3 numbers <ul style="list-style-type: none"> • Convert between different units of measure [for example, kilometre to metre; hour to minute] • Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres <ul style="list-style-type: none"> • Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators (Y3) • Recognise and show, using diagrams, families of common equivalent fractions • Add and subtract fractions with the same denominator | <p>multiplication table, multiplication fact, division fact, inverse, square, squared cube, cubed</p> <p>millimetre, centimetre, metre, kilometre, mile length, height, width, depth, breadth, long, short, tall, high, low, wide, narrow, thick, thin longer, shorter, taller, higher ... and so on longest, shortest, tallest, highest ... and so on far, further, furthest, near, close, distance apart ... between ... to ... from, edge, perimeter area, covers, square centimetre (cm²) ruler metre stick, tape measure</p> <p>fraction, equivalent fraction, mixed number numerator, denominator, equal part, equal grouping, equal sharing, parts of a whole half, two halves, one of two equal parts quarter, two quarters, three quarters, one of four equal parts, one third, two thirds, one of three equal parts, sixths, sevenths, eighths,</p> |
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| <ul style="list-style-type: none"> • Subtract two fractions • Subtract from whole amounts • Subtract from mixed numbers <p>Decimals</p> <ul style="list-style-type: none"> • Tenths as fractions • Tenths as decimals • Tenths on a place value chart • Tenths on a number line • Divide a 1-digit number by 10 • Divide a 2-digit number by 10 • Hundredths as fractions • Hundredths as decimals • Hundredths on a place value chart • Divide a 1- or 2-digit number by 100 | <ul style="list-style-type: none"> • Count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing 1-digit numbers or quantities by 10 (Y3) • Recognise and write decimal equivalents of any number of tenths or hundredths • Compare numbers with the same number of decimal places up to 2 decimal places • Find the effect of dividing a 1- or 2-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths | <p>tenths ...hundredths, decimal, decimal fraction, decimal point, decimal place, decimal equivalent, proportion</p> |
| <p>Year 5</p> <p>Multiplication and Division</p> <ul style="list-style-type: none"> • Multiply up to a 4-digit number by a 1-digit number • Multiply a 2-digit number by a 2-digit number (area model) • Multiply a 2-digit number by a 2-digit number • Multiply a 3-digit number by a 2-digit number • Multiply a 4-digit number by a 2-digit number • Solve problems with multiplication • Short division Step 8 Divide a 4-digit number by a 1-digit number • Divide with remainders • Efficient division • Solve problems with multiplication and division | <ul style="list-style-type: none"> • Multiply numbers up to four digits by a 1- or 2-digit number using a formal written method, including long multiplication for 2-digit numbers • Divide up to four digits by a 1-digit number using the formal written method of short division and interpret remainders appropriately for the context • Solve problems involving multiplication and division, including using their knowledge of factors and multiples, squares and cubes | <p>multiplication, multiply, multiplied by multiple, factor, groups of, times product, once, twice, three times ... ten times, repeated addition, division dividing, divide, divided by, divided into left, left over, remainder, grouping, sharing, share, share equally, one each, two each, three each ... ten each group in pairs, threes ... tens, equal groups of, doubling, halving, array row, column number patterns, multiplication table, multiplication fact, division fact, inverse, square, squared cube, cubed</p> |

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| <p>Fractions</p> <ul style="list-style-type: none"> • Multiply a unit fraction by an integer • Multiply a non-unit fraction by an integer • Multiply a mixed number by an integer • Calculate a fraction of a quantity • Fraction of an amount • Find the whole • Use fractions as operators <p>Decimals and Percentages</p> <ul style="list-style-type: none"> • Decimals up to 2 decimal places • Equivalent fractions and decimals (tenths) • Equivalent fractions and decimals (hundredths) • Equivalent fractions and decimals • Thousandths as fractions • Thousandths as decimals • Thousandths on a place value chart • Order and compare decimals (same number of decimal places) • Order and compare any decimals with up to 3 decimal places • Round to the nearest whole number • Round to 1 decimal place • Understand percentages • Percentages as fractions • Percentages as decimals • Equivalent fractions, decimals and percentages | <ul style="list-style-type: none"> • Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams • 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 <ul style="list-style-type: none"> • Read, write, order and compare numbers with up to 3 decimal places • Read and write decimal numbers as fractions • Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths • Solve problems which require knowing percentage and decimal equivalents of $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{5}$, $\frac{2}{5}$, $\frac{4}{5}$ and those fractions with a denominator of a multiple of 10 or 25 • Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents • Solve problems involving numbers up to 3 decimal places • Round decimals with 2 decimal places to the nearest whole number and to 1 decimal place • Recognise the per cent symbol (%) and understand that per cent relates to “number of parts per 100”, and write | <p>fraction, proper/improper fraction equivalent fraction, mixed number numerator, denominator equivalent, reduced to, cancel equal part, equal grouping, equal sharing, parts of a whole half, two halves, one of two equal parts quarter, two quarters, three quarters one of four equal parts, one third, two thirds, one of three equal parts sixths, sevenths, eighths, tenths ... hundredths, thousandths</p> <p>hundredths, thousandths decimal, decimal fraction, decimal point, decimal place, decimal equivalent proportion, in every, for every percentage, per cent, %</p> |
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| <p>Perimeter and Area</p> <ul style="list-style-type: none"> • Perimeter of rectangles • Perimeter of rectilinear shapes • Perimeter of polygons • Area of rectangles • Area of compound shapes • Estimate area <p>Statistics</p> <ul style="list-style-type: none"> • Draw line graphs • Read and interpret line graphs • Read and interpret tables • Two-way tables • Read and interpret timetables | <p>percentages as a fraction with denominator 100, and as a decimal fraction</p> <ul style="list-style-type: none"> • Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres • Calculate and compare the area of rectangles (including squares), including using standard units, square centimetres (cm²) and square metres (m²), and estimate the area of irregular shapes • Solve comparison, sum and difference problems using information presented in a line graph • Complete, read and interpret information in tables, including timetables | <p>millimetre, centimetre, metre, kilometre, mile length, height, width, depth, breadth, distance apart ... between ... to ... from, edge, perimeter area, covers, square centimetre (cm²), square metre (m²), square millimetre (mm²) ruler, estimate</p> <p>count, tally, sort, vote, survey, questionnaire, data, database, graph, block graph, pictogram represent, group, set, list, table, chart, bar chart, frequency table, bar line chart, Carroll diagram, Venn diagram, line graph, label, title, axis, axes, diagram, most popular, most, common, least popular, least common maximum/minimum value, outcome</p> |
| <p>Year 6 Ratio</p> <ul style="list-style-type: none"> • Add or multiply? • Use ratio language • Introduction to the ratio symbol • Ratio and fractions • Scale drawing • Use scale factors • Similar shapes • Ratio problems • Proportion problems • Recipes | <ul style="list-style-type: none"> • Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts • Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples • Solve problems involving similar shapes where the scale factor is known or can be found • Use simple formulae | <p>equivalent fraction, mixed number, numerator, denominator, equivalent, reduced to, cancel, equal part, equal grouping, equal sharing, parts of a whole, half, two halves one of two equal parts, quarter, two quarters, three quarters, one of four equal parts, one third, two thirds, one of three equal parts sixths, sevenths, eighths, tenths ... hundredths, thousandths, proportion, in every, for every ratio, percentage, per cent, %</p> |

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| <p>Algebra</p> <ul style="list-style-type: none"> • 1-step function machines • 2-step function machines • Form expressions • Substitution • Formulae • Form equations • Solve 1-step equations • Solve 2-step equations • Find pairs of values • Solve problems with two unknowns <p>Decimals</p> <ul style="list-style-type: none"> • Place value within 1 • Place value – integers and decimals • Round decimals • Add and subtract decimals • Multiply by 10, 100 and 1,000 • Divide by 10, 100 and 1,000 • Multiply decimals by integers • Divide decimals by • Multiply and divide decimals in context | <ul style="list-style-type: none"> • Generate and describe linear number sequences • Find pairs of numbers that satisfy an equation with two unknowns • Enumerate possibilities of combinations of two variables • Express missing number problems algebraically • Find pairs of numbers that satisfy an equation with two unknowns <ul style="list-style-type: none"> • Identify the value of each digit in numbers given to 3 decimal places and multiply and divide numbers by 10, 100 and 1,000 giving answers up to 3 decimal places • Solve problems which require answers to be rounded to specified degrees of accuracy • Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why • Multiply 1-digit numbers with up to 2 decimal places by whole numbers • Use written division methods in cases where the answer has up to 2 decimal places • Solve problems involving addition, subtraction, multiplication and division | <p>formula, formulae, equation, unknown, variable</p> <p>hundredths, thousandths decimal, decimal fraction, decimal point, decimal place, decimal equivalent</p> |
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| <p>Fractions, Decimals and Percentages</p> <ul style="list-style-type: none"> • Decimal and fraction equivalents • Fractions as division • Understand percentages • Fractions to percentages • Equivalent fractions, decimals and percentages • Order fractions, decimals and percentages • Percentage of an amount – one step • Percentage of an amount – multi-step • Percentages – missing values | <ul style="list-style-type: none"> • Use common factors to simplify fractions; use common multiples to express fractions in the same denomination • Associate a fraction with division and calculate decimal fraction equivalents for a simple fraction • Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts • Compare and order fractions, including fractions >1 • Solve problems involving the calculation of percentages and the use of percentages for comparison | <p>fraction, proper/improper fraction, equivalent fraction, mixed number, numerator, denominator, equivalent, reduced to, cancel equal part, equal grouping, equal sharing parts of a whole, half, two halves, one of two equal parts, quarter, two quarters, three quarters, one of four equal parts, one third, two thirds, one of three equal parts, sixths, sevenths, eighths, tenths ...hundredths, thousandths, decimal, decimal fraction, decimal point, decimal place, decimal equivalent, proportion, in every, for every ratio, percentage, per cent, %</p> |
| <p>Area, Perimeter and Volume</p> <ul style="list-style-type: none"> • Shapes – same area • Area and perimeter • Area of a triangle – counting squares • Area of a right-angled triangle • Area of any triangle • Area of a parallelogram • Volume – counting cubes • Volume of a cuboid | <ul style="list-style-type: none"> • Recognise that shapes with the same areas can have different perimeters and vice versa • Recognise when it is possible to use formulae for area and volume of shapes • Calculate the area of parallelograms and triangles • 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 | <p>centimetre, metre, millimetre, kilometre, mile, length, height, width, depth, breadth long, short, tall, high, low, wide, narrow thick, thin, longer, shorter, taller, higher ... and so on, longest, shortest, tallest, highest ... and so on, far, further, furthest, near, close distance apart ... between ... to ... from, edge, perimeter, circumference, area, covers square centimetre (cm²), square metre (m²), square millimetre (mm²) ruler, metre stick, tape measure, triangle, triangular, equilateral triangle, isosceles triangle, scalene triangle quadrilateral, parallelogram, rhombus, trapezium, kite, polygon, right-angled parallel, perpendicular</p> |
| <p>Statistics</p> <ul style="list-style-type: none"> • Line graphs • Dual bar charts • Read and interpret pie charts • Pie charts with percentages | <ul style="list-style-type: none"> • Interpret and construct pie charts and line graphs and use these to solve problems • Interpret and present discrete and continuous data using appropriate | <p>count, tally, sort, vote, survey, questionnaire, data, database, graph, block graph, pictogram</p> |

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| <ul style="list-style-type: none">• Draw pie charts• The mean | <p>graphical methods, including bar charts and time graphs</p> <ul style="list-style-type: none">• Calculate and interpret the mean as an average | <p>represent, group, set, list, table, chart, bar chart, frequency table, bar line chart, Carroll diagram, Venn diagram, line graph, pie chart label, title, axis, axes, diagram, most popular, most common, least popular, least common maximum/minimum value, outcome, mean (mode, median, range as estimates for this) statistics, distribution</p> |
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