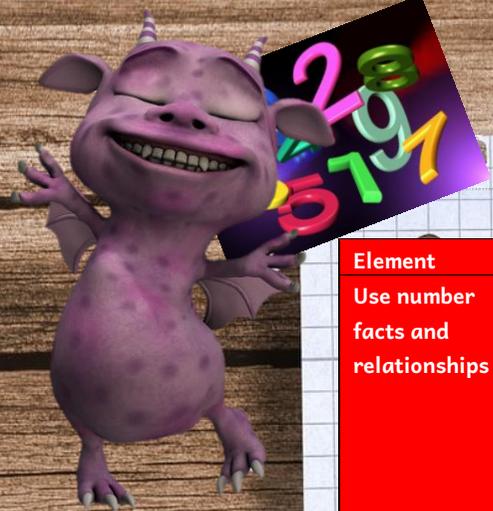


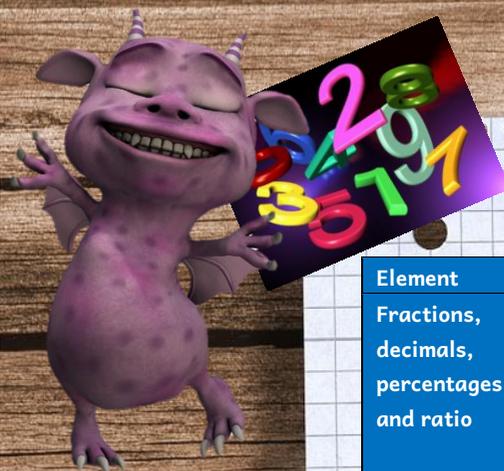
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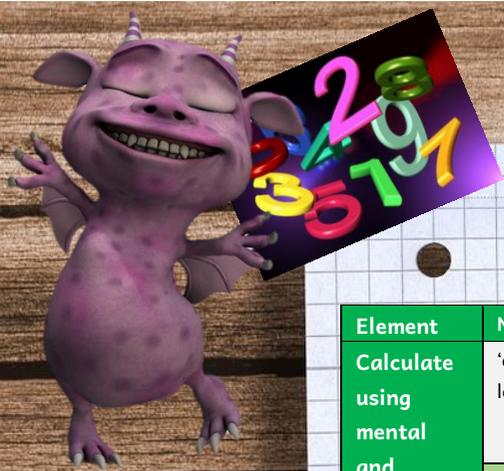
| Element | Nursery | Reception | Y1 | Y2 | Y3 | Y4 | Y5 | Y6 | |
|------------------------------------|---|-------------------------------------|-------------------------------------|--|--|---|---|---|--|
| Use number facts and relationships | 0-5 numbers and respective quantities | 0-10 numbers | 0 -20 numbers | 0 - 100 numbers | 0 - 1000 | 0 - 10,000 | 0 - 100,000 | 0 - 1,000,000 To 3 decimal places | |
| | | Number words - one, to five | Number words - one, to ten | Number words - one, to one hundred | | | | | |
| | Ordinal terms - first, second, third & last | Ordinal terms - first, to tenth | Ordinal terms - first, to twentieth | | | | | | |
| | | | Place value chart T U (to 20) | Place value chart H T U (to 100) | Place value chart Th H T U (to 1000) | Place value chart TTh Th H T U (to 10,000) | Place value chart HTh TTh Th H T U (to 100,000) | Place value chart M HTh TTh Th H T U. ths htsh thths | |
| | | | Doubles & near doubles to 10 | Doubles to 20 | | | | | |
| | | | Odd and even numbers to 20 | Odd and even numbers to 100 | Odd and even numbers to 1000 | | | | |
| | | | | | Estimate and compare to 100 | Estimate and compare to 1000 | Compare numbers with 1 or 2 decimal places | | |
| | | Number facts to 5 | Number facts to 10 | Using number facts to 10 to find other facts, e.g. $60 + 40 = 100$ | | | | | |
| | Pairs of objects or pictures to match | Counting in 2s to 10 and 10s to 100 | Counting in 2s, 5s and 10s to 100 | Multiplication tables 2s, 5s, and 10s | Multiplication tables 2s, 3s, 4s, 5s & 10s | Multiplication tables 2s, 3s, 4s, 5s, 6s & 10s | Multiplication tables 2s, 3s, 4s, 5s, 6s, 8s & 10s | Multiplication tables up to 10x10 | |
| | | | | Linking multiplication to division (share/group in 2s, 5s and 10s) | Multiplication tables to solve division | Multiplication tables to solve division | Multiplication tables to solve division | Multiplication tables to solve division | |
| | | | | | Multiply by 10 | Multiply and divide by 10 and 100 (whole numbers) | Multiply & divide by 10 and 100 (whole numbers/ decimals) | Multiply and divide by a multiple of 10 (whole numbers) | |
| | | | | | | Multiples of 2s, 3s, 4s, 5s & 10s | Multiples of 2s, 3s, 4s, 5s, 6s & 10s Factors | Multiples of 2s, 3s, 4s, 5s, 6s, 8s & 10s Factors | Multiples to 10x10 Common multiples Common factors |
| | | | | | | | Prime numbers below 10 | Prime numbers below 20 | |

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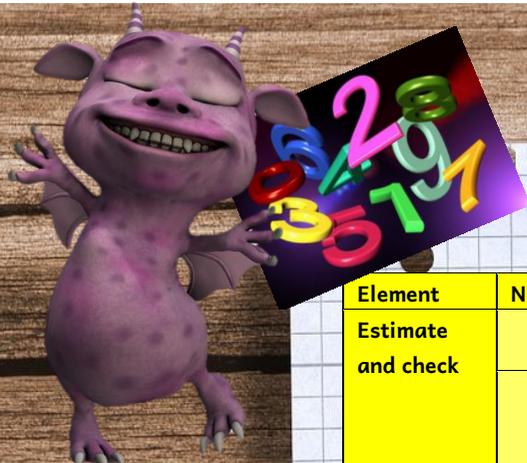
| Element | Nursery | Reception | Y1 | Y2 | Y3 | Y4 | Y5 | Y6 |
|--|---------|-----------|---------------------------|--|--|--|--|---|
| Fractions, decimals, percentages and ratio | | | Finding halves of objects | Finding halves and quarters of objects | Use halves and quarters | | | |
| | | | Halving facts to 10 | Partitioning 2 digit numbers to halve | Halve 2 digit numbers, measures and money | Halve 3 digit numbers, measures and money | | |
| | | | | | $\frac{1}{4}$ as $\frac{1}{2}$ a $\frac{1}{2}$ | Fractions as several parts of a whole | Recognise connections between fractions, e.g. $\frac{1}{10}$ is half $\frac{1}{5}$ | |
| | | | | | Fractional quantities linked to multiplication facts, e.g. $\frac{1}{5}$ of 15 | Fractional quantities linked to multiplication facts, e.g. $\frac{1}{6}$ of 30cm | Calculate fractional quantities, e.g. $\frac{1}{8}$ of 24 = 3, so $\frac{5}{8}$ = 15 | Calculate percentage quantities based on 10%, e.g. 5%, 20% |
| | | | | | | | Fraction and decimal equivalence for calculations and measuring, e.g. $\frac{1}{2}$ = 0.5 | Fraction, decimal and percentage equivalence, e.g. 25% of 60cm is equivalent to $\frac{1}{4}$ of 60cm |
| | | | | | | | Doubling and halving with simple proportions | Use simple ratio and proportion |
| | | | | | | | Share objects in a given ratio, e.g. red & blue blocks in a ratio of 1:2 | Use ratio to express 2 or more quantities in words Proportion of a whole each share represents |
| | | | | | | | Add and subtract fractions with the same denominator Add fractions with the same denominator to make a whole. | Use equivalent fractions to add and subtract fractions Simplify fractions |



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| Element | Nursery | Reception | Y1 | Y2 | Y3 | Y4 | Y5 | Y6 |
|--|---------------------------|--|--|---|--|--|---|--|
| Calculate using mental and written methods | 'one more' and 'one less' | 'One more' and 'one less' within 10 | One more' and 'one less' within 20 | Mentally add or subtract 10 or 20 to any given number to 100 | Mental strategies to add or subtract 2-digit numbers | Mental strategies to multiply and divide 2-digit by 1-digit | Multiply and divide 3 digit numbers by 1-digit numbers | Multiply 2- & 3-digit numbers by 2-digit numbers Divide 3-digit by 2-digits numbers |
| | | How many altogether? (combining 2 groups) | Counting on from largest number to add two collections | Add/subtract 9 or 11 by +/- 10 and adjusting | | Add/subtract 2-digit to/from 3-digit | Add/subtract 3-digit numbers | Add/subtract whole numbers and decimals |
| | | How many are left? (taking objects away) | | Finding differences within 20 by counting on | Find differences within 100 | Find differences within 1000 | Find differences with numbers with 1 decimal places | |
| | | | Addition, subtraction and equals symbols | Addition/subtraction/multiplication/division>equals symbols | | | | |
| | | | Terms for addition and subtraction, e.g. add, combine, find the difference | Terms for addition, subtraction, multiplication, division and equals, e.g. find the total, share, goes into | | | | |
| | | | Addition done in any order | Multiplication as repeated addition | | | | |
| | | | | Halving and doubling using partitioning | Partitioning to double & halve 2-digit numbers | | | |
| | | | | | Define a negative number as less than zero | Identify and order negative whole numbers on a number line -10 to 10 | Order negative and positive numbers including decimals to 1 decimal place | Add and subtract across zero using a number line |
| | | Simple problem solving involving counting | Simple problem solving addition and subtraction to 5 | One step problems - add and subtract up to 10 objects | One and two step problems - add, subtract, multiply and divide | | | |
| | | | | Missing numbers (+ and - to 10) | Missing numbers (+ and - to 100) | | | |



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| Element | Nursery | Reception | Y1 | Y2 | Y3 | Y4 | Y5 | Y6 |
|--------------------|---------|-----------------------------|--|---|--|--|---|---|
| Estimate and check | | Estimating up to 10 objects | Estimating a number of objects | | | | | |
| | | | sensible estimate of length, height, weight & capacity that can be checked using non-standard measures | sensible estimate of length, height, weight & capacity that can be checked using standard measures | | Estimate by rounding to the nearest 10 or 100 | Estimate by rounding to the nearest 10, 100 or 1000 | Estimate by rounding to the nearest 10, 100, 1000 or whole number |
| | | | | Check addition by repeating addition in a different order Check halving using doubling within 20 | Check subtraction using addition Check halving using doubling Check multiplication using repeated addition | Check answers using inverse operations | Check answers using inverse operations | Check answers using inverse operations |
| Manage money | | 1p, 2p, 5p and 10p coins | Different combinations of money to pay for items up to 20p | Different combinations of money to pay for items up to £1:00 | Different combinations of money to pay for items up to £2:00 and change given | Different combinations of money to pay for items up to £10:00 and change given | | |
| | | | | | Order and compare items to £10 | Order and compare items to £100 | Order and compare items to £1000 | |
| | | | | | Add and subtract totals less than £10 using correct notation | Add and subtract totals less than £100 using correct notation | | |
| | | | | | Compare retailers, keep within a budget | Accurate records to plan and track money and savings, importance of budgeting | Profit and loss Price comparison and best value for money Advantages and disadvantages of bank accounts | |

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| Element | Nursery | Reception | Y1 | Y2 | Y3 | Y4 | Y5 | Y6 |
|-------------------------------|--|---|--|--|--|---|--|---|
| Length, weight/mass, capacity | comparing, sorting and ordering two objects - size, weight or capacity by direct observation | Longer/shorter than - heavier/lighter than -holds more/less than | Non-standard units to measure: - length, height and distance - weight/mass - capacity | Metres, half metres or centimetres kilograms or 10 gram weights litres | To nearest $\frac{1}{2}$ cm 5g, 10g and 100g weights Litres and half litres to nearest 100ml | To nearest mm and record in mixed units To nearest 5g, 10g, 25g, or 100g on scales To nearest 50ml or 100ml | Measuring instruments with 10 equal divisions Record using decimal notation, e.g. 1.4kg | A range of scales and divisions Record measurements in different ways, e.g. 1.3kg 1kg 300g |
| | | | | symbols related to length, weight/mass and capacity | Choose between metric units to measure a length | Choose between metric units to measure a length, weight/mass and capacity | Estimates of length, weight/mass, capacity based on knowledge of real-life objects Appropriateness of units in different contexts | Estimates of length, weight/mass, capacity based on knowledge of real-life objects and appropriateness of units in different contexts |
| | | | | | | Convert metric measurements to smaller units, e.g. km to m, cm to mm, m to cm | Make use of conversions, e.g. $\frac{1}{4}$ km = 250m | Language of imperial units in daily use, e.g. pints, miles |
| | | | | | | Perimeter around a shape | Perimeter of squares and rectangles | Measure and calculate perimeters |

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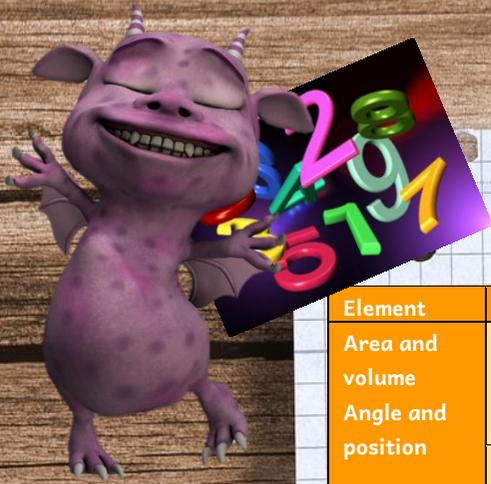
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| Element | Nursery | Reception | Y1 | Y2 | Y3 | Y4 | Y5 | Y6 | |
|-------------|--|-----------------------------------|---|---|---|--|---|--|--|
| Time | 'Before' and 'after' Days of the week | Months and seasons of the year | Ordering days of the week, months and seasons of the year | | | | Use calendars to plan events | | Timetables and schedules to plan events using calculations |
| | | | 'o' clock – analogue and digital clocks | Hours & minutes on a 12hr digital clock, 'Half past', 'quarter past' & quarter to' on an analogue clock | Hours and minutes on a 12hr digital clock Using am and pm conventions | Hours and minutes 24hr digital | Analogue and digital clocks | | |
| | | | | | Time to nearest 5 mins analogue | Time to nearest minute analogue | | | |
| | | | | | Calculating start times, finish and durations using hours, 30 min and 15min intervals | Calculating start times, finish and durations using 5min intervals | Calculating start times, finish and durations using hours and minutes | | Estimate how long a journey takes |
| | | | | | | Convert between 12hr and 24hr clock times | Practical activities in timed events and most appropriate unit | | Convert between standard units of time |
| | | | | | | How long until next hour | Time and order events in seconds | Time and order events in minutes and seconds | Time events in minutes and seconds to the nearest 10 th of a second |
| | | | | | | | Estimate number of minutes for everyday activities | Estimate time for everyday activities extending to hours and ¼ hours | Estimate time for everyday activities with increasing accuracy |
| Temperature | Temperature words – hot/cold | Temperature comparison – hot/cold | Range of temperature words – warmer/cooler | Thermometers | Thermometers above and below 0°C (-5 to 5) | Thermometers above and below 0°C (-10 to 10) | Record readings and calculate temperature differences within 10 | Record readings and calculate temperature differences | |

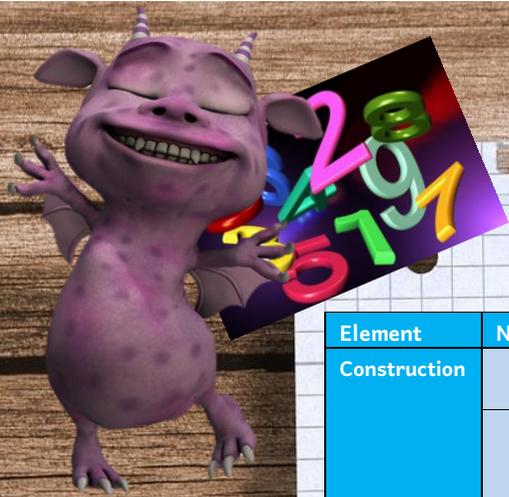
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| Element | Nursery | Reception | Y1 | Y2 | Y3 | Y4 | Y5 | Y6 |
|---------------------------------------|--|---|---|---|---|--|---|--|
| Area and volume Angle and position | | Prepositions for position | Describe position, direction and movement | Mathematical terms to describe position, direction and movement | 4 compass points | 8 compass points | Co-ordinates | Grid references |
| | | | whole turn, half turn | whole turn, half turn, clockwise and anti-clockwise | 2 right angles make $\frac{1}{2}$ turn, 4 right angles make a full turn | | | Calculate a missing angle within a right angle, on a straight line or around a point |
| | | | | quarter turn as a right angle | Identify right angles More or less than a right angle | Protractor to check more or less than a right angle. | Acute and obtuse angles Acute angles in 10° | Reflex angles Acute and obtuse angles in 5° |
| | | | | | Area by counting squares | | Area of squares and rectangles using standard units | Area of squares and rectangles |
| | | | | | | Volume in practical contexts | Volumes using practical methods and counting | |
| Shape | 2D shapes – circle square and triangle | 2D shapes – circle square triangle, and rectangle | 2D shapes – square, triangle, rectangle, circle and semi-circle | Regular and irregular 2D and 3D shapes – e.g. hexagons, pentagons, octagons | Classify triangles, squares, rectangles, pentagons and hexagons including irregular cases | Classify and sketch polygons up to 8 sides including irregular cases | Classify triangles using own criteria | Tetrahedra and square-based pyramid Sketch different types of quadrilaterals |
| | | 3D shapes – cube, cuboid and sphere | 3D shapes cube, cuboid, cone and sphere | sides, faces, vertices, edges | 3D including prisms | Classify 3D shapes using own criteria | | |
| | | | | tessellation with 2D shapes using 1 shape | Congruent shapes | | Justify whether 2 shapes are congruent | Tessellation of different shapes Nets of cubes |

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| Element | Nursery | Reception | Y1 | Y2 | Y3 | Y4 | Y5 | Y6 |
|------------------|----------|---------------------------------|---|------------------|---|--|--|--|
| Construction | | | | | Draw lines to nearest $\frac{1}{2}$ cm | Draw lines to nearest mm | Draw and label lines accurately, e.g. AB | |
| | | | | | | Perpendicular and parallel lines | Draw squares, rectangles and right-angled triangles accurately | Draw cubes and cuboids on isometric paper |
| | | | | | | | Construct solids from given nets | Draw nets of cubes on squared paper |
| Movement | symmetry | Completing symmetrical pictures | Completing symmetrical pictures and simple shapes | Line of symmetry | Line of symmetry in 2D shape Horizontal and vertical lines of symmetry | Lines of symmetry Reflection of a shape in a horizontal or vertical line | Reflection of a shape in any line Complete a partly drawn shape after rotation Translate a shape on squared paper horizontally or vertically | All the lines of symmetry on a shape Rotational symmetry of shapes Symmetrical properties of regular polygons |
| Number sequences | | | | | Whole number sequence addition or subtraction, e.g. count in 2s, 3s and 4s from different starting points (add 2 or more terms) | Whole number sequence addition or subtraction, in 2s, 3s, 4s, 5s, 6s, 8s, and 10s from different starting points (add 2 or more terms) | Whole number sequence addition or subtraction, in 2s, 3s, 4s, 5s, 6s, 8s, and 10s from different starting points (state difference, add 2 or more terms and prove a number is in the sequence) | Term to term rule for ascending and descending sequences, e.g. 3, 7, 11, 15 add 4 Consider spatial numbers Generate a sequence given the first term and term to term rule. |

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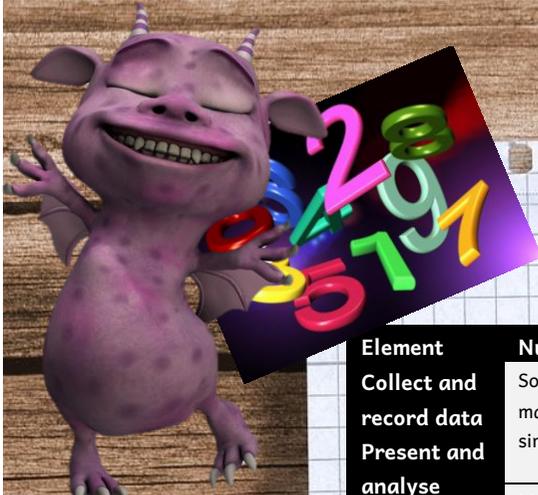


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| Element | Nursery | Reception | Y1 | Y2 | Y3 | Y4 | Y5 | Y6 |
|----------------------------|---------|-----------|----|----|---|---|--|--|
| Expressions and formulae | | | | | | | | Practical activities for general statements, e.g. $a+a+a+3a$, $3xa=3a$ & $a+a+a+b+b=3a+2b$ Simplify expressions, e.g. $5t + 3t = 8t$ |
| | | | | | | | | |
| Functions and graphs | | | | | 1 and 2 step function machines – addition and subtraction within 100 | 1 and 2 step function machines – all four functions | Multi-step function machines all four operations | 1 step function machine using algebra |
| | | | | | | | Co-ordinates in one quadrant | X axis, y axis Co-ordinates of missing point from a regular shape |
| Equations and inequalities | | | | | Unknowns in 1 step equations to derive other facts, e.g. $37 + _ = 100$ | Unknowns in 2 step equations, e.g. $4 \times _ + 1 = 25$ | 1 step equations using letters for unknowns with integer solution, e.g. $6 + a = 10$ | 1 step equations with whole number solutions |
| | | | | | Numbers greater or less than another number Read number statements with inequality signs, e.g. $6 > 4$ | Use $<>$ to describe numbers | Use $<>$ to describe numbers working with different types of numbers | Numbers between 2 points using terminology less than or equal to & greater than or equal to |

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| Element | Nursery | Reception | Y1 | Y2 | Y3 | Y4 | Y5 | Y6 |
|--|--|---|--|---|--|--|--|--|
| Collect and record data Present and analyse data Interpret results | Sorting and matching based on similarities | Sorting and classifying using one criterion | Sorting and classifying using more than one criterion | Sorting and classifying using more than two criterion | | | | |
| | Mark making to record | Marks, numbers or pictures to record | Voting or sorting represented in pictures, objects or drawings | | | | | |
| | | | Lists and tables | Lists and tables, Diagrams Block graphs Pictograms where the symbol represents one unit | Lists, timetables, tally charts, tables, diagrams Bar charts and bar line graphs labelled in 2s, 5s and 10s Pictograms - one symbol represents more than one unit using a key Venn and Carroll diagrams | Lists, timetables, tally charts, tables, diagrams Bar charts and bar line graphs labelled in 2s, 5s and 10s Pictograms - one symbol represents more than one unit using a key Venn and Carroll diagrams | Lists, timetables, tally charts, tables, diagrams and frequency tables Bar charts, grouped data charts, line graphs and conversion graphs Pie charts | Lists, timetables, tally charts, tables, diagrams and frequency tables Bar charts, grouped data charts, line graphs and conversion graphs Pie charts |
| Pattern | | | | | | | Mean, median, mode and range | Mean, median, mode and range |
| | Simple visual or aural patterns | 3 object/ colour/ clapped sequences | Repeating shape and number patterns | Patterns in combinations of mathematical objects | | | | |
| Probability | | | | | | | Likely, unlikely, even chance, certain and impossible for likelihood of an event occurring | Numbers for likelihood of an event, e.g. 1 in 6 chance Equally likely Outcomes of simple events, e.g. flipping a coin, rolling a dice |