Progress coverage - Mathematics

Expectations for progress: Place value

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| Reception | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| Recognise some numerals of personal significance. | Count, read and write numbers to 100 in numerals. | Recognise the place value of each digit in a two-digit number. | Recognise the place value of each digit in a three-digit number. | Recognise the place value of each digit in a four-digit number. | Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero. | Use negative numbers in context, and calculate intervals across zero. |
| Recognises numerals 1 to 5. | Read and write numbers to 20 in numerals and words. | Compare and order numbers from 0 up to 100; use <, > and = signs. | Compare and order numbers up to 1000. | Order and compare numbers beyond 1000. | Read, write, order and compare numbers up to 1 000 000 and determine the value of each digit. | Read, write, order and compare numbers up to 10 000 000 and determine the value of each digit. |
| Counts up to three or four objects by saying one number name for each item. | Partition 2 digit numbers into tens and units. | Identify, represent and estimate numbers using different representations, including the number line. | Identify, represent and estimate numbers using different representations. | Round any number to the nearest 10, 100 or 1000. | Round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000. | Round any whole number to a required degree of accuracy. |
| Counts actions or objects, which cannot be moved. | Identify and represent numbers using objects and pictorial representations including the number line. | Read and write numbers to at least 100 in numerals and in words. | Read and write numbers to 1000 in numerals and in words. | Identify, represent and estimate numbers using different representations. | Read Roman numerals to 1000 (M) and recognise years written in Roman numerals. |  |
| Counts objects to 10, and beginning to count beyond 10. |  |  |  | Read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and place value. | Recognise and use square numbers and cube numbers, and the notation for squared (²) and cubed (³). |  |
| Counts out up to six objects from a larger group. |  |  |  |  |  |  |

Expectations for progress: Addition

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| Reception | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| Counting in ones, 1:1 correspondence starting from difference numbers – up to 20. | Count to, read and write numbers across 100. | Use partitioning and add 2 digit number. | Partition using columns for addition – involve crossing 10 then 100. | Formal column method of addition (4 digit numbers). | Introduce adding decimal in a column. | Add negative integers. |
| Adding 2 groups together by counting and counting on. | Number bonds 10, 20 & 100. | Apply written methods as well as concrete objects. | add and subtract numbers mentally, including: HTO+O, HTO+T and HTO+H | Involve 2 step problems. | Read, write & compare numbers to at least 1,000,000. | Consolidating & applying knowledge to solve problems. |
| Uses the language of ‘more’ and ‘fewer’ to compare two sets of objects. | Add 1 & 2 digit numbers to 20 including 0. | Adding 3 digit numbers using partitioning. | Add and subtract numbers with up to three digits, using formal written methods of columnar addition. | Adding 3 lots of four digit numbers. | Interpret negative numbers in context, calculate intervals across zero. | Perform mental calculations, including with mixed operations and large numbers. |
| Says the number that is one more than a given number. | Solve one step problems that involve addition using concrete objects and mentally. | Understanding of commutative law in relation to addition. | Estimate the answer to a calculation and use inverse operations to check answers | Doubling & halving 2, 3 & 4 digit number (odd numbers). | Solve number problems & practical problems. |  |
| In practical activities and discussion, beginning to use the vocabulary involved in addition. | Doubling & halving simple numbers. | Use inverse to check missing number problems. | Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction. | Estimate and use inverse operations to check answers to a calculation. | Add and subtract numbers mentally with increasingly large numbers |  |
|  | Missing & number problems. | Doubling & halving including multiples of 12. |  | Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why. | Add and subtract whole numbers with more than 4 digits, including using formal written methods. |  |
|  | Use language of equal to, more than. | Extend mental maths strategies to include number bonds. |  |  | Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy. |  |
|  | Add simple 2 digit numbers together |  |  |  | Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why. |  |
|  | Given a number, identify one more and one less. |  |  |  |  |  |

Expectations for progress: Subtraction

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| Reception | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| Physically taking away using numbers up to 20. | Subtract by finding the difference on a number line. | Subtract by finding the difference on a number line. | Subtract by finding the difference on a number line. | Subtract using formal column method. | Subtract using formal column method. | Subtract using formal column method. |
| Using number lines with physical objects. | Numbers should extend as children become more confident. This then needs applying to problems both written and practical. | Begin to do larger jumps of 10 or 2. | Use a number line to make bigger jumps. Mixture of numbers counting onto the next whole 10, 100. | Application to number challenges using inverse to check. | Decimals (as money) | Decimals (as money) |
| Uses the language of ‘more’ and ‘fewer’ to compare two sets of objects. | Missing number sentences. | Extension work to involve 3 digit numbers. | Doubling / halving 2, 3 and 4 digit number. | Estimate and use inverse operations to check answers to a calculation. | Application to number challenges using inverse to check. | Application to number challenges using inverse to check. |
| In practical activities and discussion, beginning to use the vocabulary involved in subtraction. | Application to number challenges using inverse to check. | Application to number challenges using inverse to check. | Application to number challenges using inverse to check. | Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why. |  |  |
|  |  |  | add and subtract numbers mentally, including: HTO+O, HTO+T and HTO+H |  |  |  |
|  |  |  | Add and subtract numbers with up to three digits, using formal written methods of columnar addition. |  |  |  |
|  |  |  | Estimate the answer to a calculation and use inverse operations to check answers |  |  |  |
|  |  |  | Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction. |  |  |  |
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Expectations for progress: Multiplication

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| Year 1 | Year 2 | Year 3 | Year 4 | Year 5 & Year 6 |
| Solve simple one step problems involving ‘group of’ concrete and pictorial objects. | 2, 5, 10 times table and understand it as repeated addition. | Children should know all times tables by end of year. | Consolidate all times tables. | Consolidate all times tables. |
|  | Learn these tables, extend to 3, 4 when confident. | Introduce multiplication in formal method. 2 by 1 digit | Formal column multiplication methods | Multiply multi digit numbers up to 4 digit whole numbers using formal method. |
|  | Solve problems using materials, array & repeated addition. | Application to number challenges. Real life situations & problems. | 2 & 3 digit x 1 digit. Extend to 4 digits in columns. | Multiply decimal numbers by 10, 100 and 1000. |
|  | Calculate simple number sentences using table they know – begin to use grid method with higher ability. | Counting in multiples of 4, 8, 50 & 100. (6, 7, 9, 25 & 1000 extension) | Application to number challenges. Real life situations & problems. | Identify multiples, factors, common factors and prime numbers. |
|  | Understand cumulative law with x link to +. |  |  | Recognise squared and cubed numbers. |
|  | Application to number challenges. Real life situations & problems. |  |  | Application to number challenges. Real life situations & problems. |

Expectations for progress: Division

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| Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| Solve simple one step problems involving division using concrete / pictorial objects. | Share between physically into groups, then put onto a number line. | Divide using formal method starting at 0. | Use place value to recall multiplication and division facts for all tables. | Use place value to recall multiplication and division facts for all tables. | Use place value to recall multiplication and division facts for all tables. |
| Using sharing to understand the concept. | Larger numbers. | Calculate with small remainders when confident. | Divide mentally using known facts. | Divide mentally using known facts. | Divide mentally using known facts. |
| Application into number challenges, use invers of known x tables to check answers. | Simple remainders. | Larger number. | Use times tables to divide by 2 & 3 digit number. | Use times tables to divide 4 digit by 2 & 3 digit numbers. | Use times tables to divide 4 digit by 2 & 3 digit numbers. |
|  | To understand the inverse to prove it. | Apply to fractions. |  | Give remainders as a fraction / decimal. | Use knowledge of BODMAS to carry out calculations. |
|  | Application into number challenges, use invers of known times tables to check answers. | Application into number challenges, use invers of times tables to check answers. |  |  | Give remainders as a fraction / decimal. |

Expectations for progress: Fractions

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| Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| Recognise, find and name a half as one of two equal parts of an object, shape or quantity. | Recognise, find, name and write fractions 1/3, `1/4, 2/4 and 3/4 of a length, shape, set of objects or quantity. | Count up or down in tenths. | Count up or down in hundredths. | Recognise mixed numbers and improper fractions and convert from one to the other. | Use common factors to simplify fractions. |
| Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity. | Write simple fractions and recognise the equivalence of 2/4 and 1/2. | Recognise that tenths arise from dividing an object into 10 equal parts and in dividing one digit numbers of quantities by 10. | Recognise that hundredths arise from dividing an object by 100 and dividing tenths by 10. | Write mathematical statements > 1 as a mixed number. | Use common multiples to express fractions in the same denomination. |
|  |  | Compare and order unit fractions and fractions with the same denominators. | Recognise and show, using diagrams, families of common equivalent fractions. | Compare and order fractions whose denominators are all multiples of the same number. | Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions. |
|  |  | Recognise and show, using diagrams, equivalent fractions with small denominators. | 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. | Identify, name and write equivalent fractions of a given fraction, representing visually, including tenths and hundredths. | Multiply simple pairs of proper fractions, writing the answer in its simplest form. |
|  |  | Recognise, find and write fractions of a discrete set of objects with small denominators. | Add and subtract fractions with the same denominator. | Add and subtract fractions with the same denominator and denominators that are multiples of the same number. | Divide proper fractions by whole numbers. |
|  |  | Add and subtract fractions with the same denominator within one whole. | Solve simple measure and money problems involving fractions and decimals to two decimal places. | Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams. |  |
|  |  | Solve problems using all fraction knowledge. |  |  |  |

Expectations for progress: Decimals and percentages

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| Year 4 | Year 5 | Year 6 |
| Recognise and write decimal equivalents of any number of tenths or hundredths | Read and write decimal numbers as fractions | Associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction |
| Recognise and write decimal equivalents to 1/4, 1/2 and 3/4 | Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents | Identify the value of each digit in numbers given to three decimal places |
| Find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths | Round decimals with two decimal places to the nearest whole number and to one decimal place. | Multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places. |
| Round decimals with one decimal place to the nearest whole number | Read, write, order and compare numbers with up to three decimal places | Multiply one-digit number with up to two decimal places by whole numbers |
| Compare numbers with the same number of decimal places up to two decimal places | Recognise the per cent symbol (%) and understand that per cent relates to ‘number of parts per hundred’, and write percentages as a fraction with denominator 100, and as a decimal | Se written division methods in cases where the answer has up to two decimal places |
|  | Solve problems involving number up to three decimal places | Solve problems involving the calculation of percentages [for example, of measures, and such as 15% of 360] and the use of percentages for comparison |
|  | Solve problems which require knowing percentage and decimal equivalents of 1/2 , 1/4 , 1/5 , 2/5 , 4/5 and those fractions with a denominator of a multiple of 10 or 25 | Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts. |
|  |  | 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. |

Expectations for progress: Measurement

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| Reception | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| They use past, present and future forms accurately when talking about events that have happened or are to happen in the future. They develop their own narratives and explanations by connecting ideas or events. | Compare, describe and solve practical problems for: length/height, weight/mass, capacity/volume & time. | Choose and use appropriate standard units to estimate and measure length/height (m/cm); mass (kg/g); temperature (°C); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels. | Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml). | Convert between different units of measure estimate, compare and calculate different measures, including money in pounds and pence. | Convert between different units of metric measure. | Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate. |
| Can describe their relative position such as ‘behind’ or ‘next to’. | Measure and begin to record length/height, weight/mass, capacity/volume & time. | Compare and order lengths, mass, volume/capacity and record the results using >, < and =. | Measure the perimeter of simple 2-D shapes. | Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres. | Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints. | 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. |
| Orders two or three items by length, height, weight or capacity. | Recognise and know the value of different denominations of coins and notes. | Recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value. | Add and subtract amounts of money to give change, using both £ and p in practical contexts. | Find the area of rectilinear shapes by counting squares. | Estimate volume and capacity. | Convert between miles and kilometres. |
| Uses familiar objects and common shapes to create and recreate patterns and build models. | Sequence events in chronological order using language recognise and use language relating to dates, including days of the week, weeks, months and years. | Find different combinations of coins that equal the same amounts of money. | Tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks. | Convert between different units of measure (e.g. Hours to minutes). | Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres. | Recognise that shapes with the same areas can have different perimeters and vice versa. |
| Uses everyday language related to time. | Tell the time to the hour and half past the hour and draw the hands on a clock face to show these times. | Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change. | Estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hours; use vocabulary such as o’clock, a.m./p.m., morning, afternoon, noon and midnight. | Read, write and convert time between analogue and digital 12- and 24-hour clocks. | Calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm²) and square metres (m²) and estimate the area of irregular shapes. | Recognise when it is possible to use formulae for area and volume of shapes. |
| Beginning to use everyday language related to money. |  | Compare and sequence intervals of time | Know the number of seconds in a minute and the number of days in each month, year and leap year and compare durations of events. | Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days. | Use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling. | Calculate the area of parallelograms and triangles. |
| Orders and sequences familiar events. |  | Tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock face to show these times. |  |  | Solve problems involving converting between units of time. | 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. |
| Measures short periods of time in simple ways |  | Know the number of minutes in an hour and the number of hours in a day. |  |  |  |  |

Expectations for progress: Geometry

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| Reception | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| They recognise, create and describe patterns. | Recognise and name common 2-D shapes (e.g. Square, circle, triangle) . | Identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line. | Identify horizontal and vertical lines and pairs of perpendicular and parallel lines. | Compare and classify geometric shapes, including quadrilaterals and triangles, based on properties and sizes. | Use the properties of rectangles to deduce related facts and find missing lengths and angles. | Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius. |
| They explore characteristics of everyday objects and shapes and use mathematical language to describe them. | Recognise and name common 3-D shapes (e.g. Cubes, cuboids, pyramids & spheres). | Compare and sort common 2-D and 3-D shapes and everyday objects. | Draw 2D shapes. | Identify lines of symmetry in 2-D shapes presented in different orientations. | Distinguish between regular and irregular polygons based on reasoning about equal sides and angles. | Compare and classify geometric shapes based on their properties and sizes. |
|  | Describe position, direction and movement, including whole, half, quarter and three-quarter turns. | Identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces. | Make 3-D shapes using modelling materials. | Complete a simple symmetric figure with respect to a specific line of symmetry. | Identify 3-D shapes, including cubes and other cuboids, from 2-D representations. | Draw 2-D shapes using given dimensions and angles and recognise, describe and build simple 3-D shapes, including making nets. |
|  |  | Identify 2-D shapes on the surface of 3-D shapes. | Recognise 3-D shapes in different orientations and describe them. | Identify acute and obtuse angles and compare and order angles up to two right angles by size. | Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles. | Find unknown angles in any triangles, quadrilaterals, and regular polygons. |
|  |  | Compare and sort common 2-D and 3-D shapes and everyday objects. | Recognise angles as a property of shape or a description of a turn. | Describe positions on a 2-D grid as coordinates in the first quadrant. | Draw given angles, and measure them in degrees (°). | Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles. |
|  |  | Order and arrange combinations of mathematical objects in patterns and sequences. | Identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn. | Describe movements between positions as translations of a given unit to the left/right and up/down. | Identify angles at a point and one whole turn (total 360°); at a point on a straight line and ½ a turn (total 180°) and identify other multiples of 90°. | Describe positions on the full coordinate grid (all four quadrants). |
|  |  | Use mathematical vocabulary to describe position, direction and movement, including movement in a straight line and distinguishing between rotation as a turn and in terms of right angles for quarter, half and 1/4 turns. | Identify whether angles are greater or less than right angle. | Plot specified points and draw sides to complete a given polygon. | Identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed. | Draw and translate simple shapes on the coordinate plane, and reflect them in the axes. |

**Vocabulary coverage - Mathematics**

*“The national curriculum for mathematics reflects the importance of spoken language in pupils’ development across the whole curriculum – cognitively, socially and linguistically. The quality and variety of language that pupils hear and speak are key factors in developing their mathematical vocabulary and presenting a mathematical justification, argument or proof. They must be assisted in making their thinking clear to themselves as well as others, and teachers should ensure that pupils build secure foundations by using discussion to probe and remedy their misconceptions.”*

**National Curriculum in England, Department for Education, 2013**

Using correct mathematical language is crucial for thinking, learning and communicating mathematically. Children may build knowledge through remembering information that they hear, but it is only when they put these ideas into their own words that it becomes clear whether concepts have been learned effectively. It is in listening to children talking about mathematics that we, as teachers, can best assess what they are actually learning and understanding. This enables us to identify and address any misconceptions that might be developing.

We need to encourage children to explain what they are doing and why they are doing it. We must offer them opportunities to use mathematical language frequently, for example by participating in paired activities, group discussions and games as well as other dialogues. This will help children to learn new vocabulary, to use words they already know more accurately, and to express new ideas and new thinking.

It is important to introduce children to the correct vocabulary at the appropriate time and within a suitable context. It is often helpful to do this using relevant real-life objects, mathematical manipulatives and visual representations such as pictures and diagrams. All children need regular, planned opportunities to develop their mathematical vocabulary in order that they become familiar with the language and are not confused by mathematical terms. They need to acquire the words necessary for them to take part in lessons and activities, respond to questions correctly and carry out tasks successfully. Fun games and activities, such as the following example, can be a useful way to rehearse words and their meanings regularly.

Please note: progression through each year group’s vocabulary is intended to build on that taught in the previous year group.

**Tier 3 Vocabulary**

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|  | Reception | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| Number | zero  number  one, two, three … to twenty and beyond  is the same as  more, less  odd, even  pattern | In addition to all previous vocabulary…  numeral  equal to  equivalent to  multiple of  > greater than  < less than | In addition to all previous vocabulary…  tally  sequence  predict | In addition to all previous vocabulary…  multiple  factor  relationship  Roman numerals | In addition to all previous vocabulary…  ten thousand, hundred thousand, million  consecutive  integer  positive/negative  minus | In addition to all previous vocabulary…  factor pair  ≥ / ≤  formula  square number  prime number  ascending, descending | In addition to all previous vocabulary…  factorise  prime factor |
| Place Value | digit  more, larger, bigger, greater  one more  one less  order  size | In addition to all previous vocabulary…  equal to  ones  tens  half-way between | In addition to all previous vocabulary…  hundreds  one-, two- or three-digit number  place value  represents  exchange | In addition to all previous vocabulary…  one hundred more  one hundred less | In addition to all previous vocabulary…  one thousand more  one thousand less | In addition to all previous vocabulary…  Power of 10 | **Consolidate previously taught** |
| Estimating | Guess  estimate  nearly  close to  too many, too few | In addition to all previous vocabulary…  estimate | In addition to all previous vocabulary…  exact | In addition to all previous vocabulary…  approximate  round | Consolidate previously taught | **Consolidate previously taught** | **Consolidate previously taught** |
| Addition and subtraction | add  altogether  double  take away | In addition to all previous vocabulary…  addition  half  subtract  difference  equals  is the same as  number bonds | In addition to all previous vocabulary…  number bonds  sum  **tens boundary**  near double | In addition to all previous vocabulary…  boundary | In addition to all previous vocabulary…  inverse | In addition to all previous vocabulary…  tens boundary  hundreds boundary  ones boundary  tenths boundary | **Consolidate previously taught** |
| Multiplication and division | sharing  doubling  halving | In addition to all previous vocabulary…  multiply  divide  grouping  array | In addition to all previous vocabulary…  repeated addition  equal groups of | In addition to all previous vocabulary…  factor  product  remainder | In addition to all previous vocabulary…  inverse  square, squared  cube, cubed | Consolidate previously taught | **Consolidate previously taught** |
| Fractions (including decimals, percentages, ratio and proportion) | half | In addition to all previous vocabulary…  parts of a whole  quarter  fraction  equal part | In addition to all previous vocabulary…  equivalent fraction  numerator, denominator | **Consolidate previously taught** | In addition to all previous vocabulary…  Decimal  decimal place  decimal equivalent  proportion | In addition to all previous vocabulary…  proper/improper fraction  simplify  percentage | In addition to all previous vocabulary…  ratio |
| Algebra |  |  |  |  |  |  | formula  equation  variable |
| Measurement | measure  guess  too much  too little  just over  just under | In addition to all previous vocabulary…  measurement  estimate  compare | In addition to all previous vocabulary…  scale | In addition to all previous vocabulary…  division of a scale  approximately | In addition to all previous vocabulary…  unit, standard unit  metric unit | In addition to all previous vocabulary…  imperial unit | Consolidate previously taught |
| Length | metre  length  height  long, short, tall  wide, narrow | In addition to all previous vocabulary…  centimeter  ruler  meter stick | In addition to all previous vocabulary…  tape measure | In addition to all previous vocabulary…  millimeter, kilometer, mile  distance  perimeter | In addition to all previous vocabulary…  Depth  Width  breath  area  square centimetre | In addition to all previous vocabulary…  square metre (m2)  square millimetre (mm2) | In addition to all previous vocabulary…  yard, foot, feet, inch, inches  circumference |
| Weight | balances  heavy  light | In addition to all previous vocabulary…  weight | In addition to all previous vocabulary…  Gram  kilogram | Consolidate previously taught | In addition to all previous vocabulary…  mass | **Consolidate previously taught** | In addition to all previous vocabulary…  tonne  pound  ounce |
| Capacity and volume | full  empty  half full | In addition to all previous vocabulary…  litre, half litre  capacity  quarter full | In addition to all previous vocabulary…  millimeter  contains | Consolidate previously taught | In addition to all previous vocabulary…  measuring cylinder | In addition to all previous vocabulary…  pint, gallon  volume | In addition to all previous vocabulary…  centilitre  cubic centimetres |
| Temperature | Warm  cold | **Consolidate previously taught** | temperature  degree  increase  decrease | centigrade | Consolidate previously taught | **Consolidate previously taught** | Consolidate previously taught |
| Time | time  days of the week, Monday, Tuesday …  day, week  morning, afternoon, evening, night  bedtime, dinner time playtime  today, yesterday, tomorrow  clock  watch | In addition to all previous vocabulary…  months of the year (January, February ...)  seasons: spring, summer, autumn, winter  hour, o’clock, half past, quarter past, quarter to  hands  hours, minutes | In addition to all previous vocabulary…  fortnight  5, 10, 15… minutes past  digital/analogue  seconds | In addition to all previous vocabulary…  century  a.m, p.m  Roman numerals  12-hour clock time, 24-hour clock time | In addition to all previous vocabulary…  leap year  millennium  timetable  arrive, depart | **Consolidate previously taught** | In addition to all previous vocabulary…  Greenwich Mean Time, British Summer Time, International Date Line |
| Money | money  coin  buy  spend  pay | In addition to all previous vocabulary…  penny, pence, pound  dear  cheap  total | In addition to all previous vocabulary…  change | Consolidate previously taught | Consolidate previously taught | In addition to all previous vocabulary…  discount  currency | In addition to all previous vocabulary…  profit  loss |
| Properties of shape | shape  pattern  flat  curved  straight  round  pattern | In addition to all previous vocabulary…  symmetrical  repeating pattern | In addition to all previous vocabulary…  surface  line symmetry | In addition to all previous vocabulary…  perimeter  area  angle  perpendicular  parallel | In addition to all previous vocabulary…  center  angle  right-angled  square-based  reflect  reflection  regular  irregular | In addition to all previous vocabulary…  Radius  diameter  congruent  axis of symmetry  reflective symmetry | In addition to all previous vocabulary…  circumference  net  intersecting |
| 2D shape | rectangle (including square)  circle  triangle | In addition to all previous vocabulary…  Vertices | In addition to all previous vocabulary…  pentagon  hexagon  octagon | In addition to all previous vocabulary…  pentagon  hexagon  octagon  quadrilateral  right-angled | In addition to all previous vocabulary…  two-dimensional  rectilinear  equilateral triangle, isosceles triangle, scalene triangle  heptagon  parallelogram, rhombus, trapezium  polygon | In addition to all previous vocabulary…  x-axis, y-axis, quadrant | In addition to all previous vocabulary…  kite |
| 3D shape | face, edge, vertex, vertices  cube  pyramid  sphere  cone | In addition to all previous vocabulary…  cuboid  cylinder  3D | Consolidate previously taught | In addition to all previous vocabulary…  hemisphere  prism  triangular prism | In addition to all previous vocabulary…  three-dimensional  spherical  cylindrical  tetrahedron, polyhedron | In addition to all previous vocabulary…  octahedron | In addition to all previous vocabulary…  dodecahedron  net, open, closed |
| Position and direction | position  over  under  above  below  opposite  between | In addition to all previous vocabulary…  underneath  center  journey  whole turn  half turn  quarter turn  three-quarter turn | In addition to all previous vocabulary…  route  clockwise  anticlockwise  right angle | In addition to all previous vocabulary…  compass point  horizontal, vertical, diagonal  acute angle  obtuse angle | In addition to all previous vocabulary…  Translate  rotate  degree  reflection  compass | In addition to all previous vocabulary…  coordinate  protractor | In addition to all previous vocabulary…  reflex angle |
| Statistics | Count  sort  group | In addition to all previous vocabulary…  vote  table  tally | In addition to all previous vocabulary…  Graph  block graph  pictogram  represent | In addition to all previous vocabulary…  Chart  bar chart  frequency table  Carroll diagram  Venn diagram  axis | In addition to all previous vocabulary…  Survey  Questionnaire  data | In addition to all previous vocabulary…  database  bar line chart  line graph  value  outcome | In addition to all previous vocabulary…  pie chart  mean (mode, median, range as estimates for this)  statistics  distribution |
| General | pattern  puzzle  describe  draw  sort | In addition to all previous vocabulary…  problem solving  reasoning  compare  mental | In addition to all previous vocabulary…  investigate  mental calculation  written calculation | In addition to all previous vocabulary…  greatest value  least value  statement | In addition to all previous vocabulary…  justify  make a statement | In addition to all previous vocabulary…  conjecture | Consolidate previously taught |