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| YEAR 1 | YEAR 2 | YEAR 3 | YEAR 4 |
| **Number – number and place value**  | **Number – number and place value**  | Number and place value | **Number – number and place value**  |
| count, read and write numbers to 100 in numerals; count in multiples of 2s, 5s and 10s | count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward | count from 0 in multiples of:4, 8, 50, 100 | count in multiples of: 6, 7, 9, 25 and 1000 |
| given a number, identify 1 more and 1 less |  | find 10 or 100 more or less than a given number | find 1,000 more or less than a given number |
| count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number |  |  | count backwards through 0 to include negative numbers |
|  | recognise the place value of each digit in a two-digit number (tens, ones)  | recognise the place value of each digit in a 3-digit number (100s, 10s, 1s) | recognise the place value of each digit in a four-digit number (1,000s, 100s, 10s, and 1s |
|  | compare and order numbers from 0 up to 100; use <, > and = signs  | compare and order numbers up to 1,000 | order and compare numbers beyond 1,000 |
|  identify and represent numbers using objects and pictorial representations including the number line,  | identify, represent and estimate numbers using different representations, including the number line  | identify, represent and estimate numbers using different representations | identify, represent and estimate numbers using different representations |
|  |  read and write numbers to at least 100 in numerals and in words  | read and write numbers up to 1,000 in numerals and in words | read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of 0 and place value |
| use the language of: equal to, more than, less than (fewer), most, leastread and write numbers from 1 to 20 in:numerals and words | use place value and number facts to solve problems. | solve number problems and practical problems involving these ideas | solve number and practical problems that involve all of the above and with increasingly large positive numbers |
|  |  |  | round any number to the nearest 10, 100 or 1,000 |
| ***Addition and subtraction Y1*** | **Number – addition and subtraction Y2** | ***Addition and Subtraction Y3*** | **Number – addition and subtraction Y4** |
| solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = ? – 9 | solve problems with addition and subtraction: using concrete objects and pictorial representations, including those involving numbers, quantities and measures applying their increasing knowledge of mental and written methods  | solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction | solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why |
| represent and use number bonds and related subtraction facts within 20read, write and interpret mathematical statements involving addition (+), subtraction (−) and equals (=) signs | recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100  | add and subtract numbers with up to 3 digits, using formal written methods of columnar additionsubtraction | add and subtract numbers with up to 4 digits using the formal written methods of: columnar addition and subtraction where appropriate |
| add and subtract one-digit and two-digit numbers to 20, including 0 | add and subtract numbers using concrete objects, pictorial representations, and mentally, including: a two-digit number and ones a two-digit number and tens two two-digit numbers adding three one-digit numbers  | add and subtract numbers mentally, including:a three-digit number and 1sa three-digit number and 10sa three-digit number and 100s |  |
|  | show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot  | estimate the answer to a calculation and use inverse operations to check answers | estimate and use inverse operations to check answers to a calculation |
|  | recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.  |  |  |
| Multiplication and divisionY1 | **Number – multiplication and division Y2** | Multiplication and DivisionY3 | **Number – multiplication and division Y4** |
|  | recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers  | recall and use multiplication and division facts for the: 3x, 4x, 8x multiplication tables | recall multiplication and division facts for multiplication tables up to 12 × 12 |
|  | calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs  | write and calculate mathematical statements for multiplication and division using the multiplication tables that they knowincluding for two-digit numbers times one-digit numbers using mental and...  | 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 |
|  |  | ... progressing to formal written methods | multiply two-digit and three-digit numbers by a one-digit number using formal written layout |
|  | show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot  |  | recognise and use factor pairs and commutativity in mental calculations |
| solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher | solve problems involving multiplication and division, -using materials, -arrays, -repeated addition, -mental methods, and multiplication and division facts, including problems in contexts.  | solve problems, including missing number problems, involving:multiplicationdivision,including positive integer scaling problems and correspondence problems in which n objects are connected to m objects | solve problems involving: multiplying  adding, including using the distributive law to multiply two-digit numbers by 1 digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects |
| Fractions Y1 | **Number – fractions Y2** | Fractions Y3 | **Number – fractions Y4** |
| recognise, find and name a half as 1 of 2 equal parts of an object, shape or quantityrecognise, find and name a quarter as 1 of 4 equal parts of an object, shape or quantity | recognise, find, name and write fractions 1/3 ¼ 2/4 ¾ of a length, shape, set of objects or quantity  | count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10 | count up and down in hundredths; recognise that hundredths arise when dividing an object by 100 and dividing tenths by 10 |
|  | write simple fractions for example, ½ of 6 = 3 and recognise the equivalence of 2/4 and ½ | recognise, find and write fractions of a discrete set of objects: unit fractions non-unit fractions with small denominators | recognise and show, using diagrams, families of common equivalent fractions |
|  |  | recognise and use fractions as numbers: unit fractions non-unit fractions with small denominators |  |
|  |  | recognise and show, using diagrams, equivalent fractions with small denominators | recognise and write decimal equivalents of any number of tenths or hundreds |
|  |  | add and subtract fractions with the same denominator within one whole [for example, +  =  ] | add and subtract fractions with the same denominator |
|  |  | compare and order unit fractions, and fractions with the same denominators | recognise and write decimal equivalents to 1/4 , 1/2 , 3/4 |
| Year 1 - Fractions | Year 2 - Fractions | Year 3 - Fractions | Year 4 – Fractions |
|  |  | solve problems that involve all of the above | 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 |
|  |  |  | 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 1 decimal place to the nearest whole numbercompare numbers with the same number of decimal places up to 2 decimal placessolve simple measure and money problems involving fractions and decimals to 2 decimal places |
|  |  |  | compare numbers with the same number of decimal places up to 2 decimal places |
|  |  |  | solve simple measure and money problems involving fractions and decimals to 2 decimal places |
| ***Measurement Y1*** | **Measurement Y2** | **Measurement Y3** | **Measurement Y4** |  |
| **compare, describe and solve practical problems for:****lengths and heights:** long/short longer/shortertall/short double/half**mass/weight** heavy/light heavier thanlighter than**capacity and volume** full/empty, more than less than halfhalf full quarter**time** quickerslower earlierlater | 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  | measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g);volume/capacity (l/ml) | convert between different units of measure [for example: kilometre to metre; hour to minute |  |
| **measure and begin to record the following:**lengths and heightsmass/weightcapacity and volumetime (hours, minutes, seconds) | 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 |  |
|  |  |  | find the area of rectilinear shapes by counting squares |  |
| 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  |  |  |  |
|  | find different combinations of coins that equal the same amounts of money  |  |  |  |
| Y1 - measurement | Y2 - Measurement | Y3 - Measurement | Y4 - Measurement |  |
|  | solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change  | add and subtract amounts of money to give change, using both £ and p in practical contexts | estimate, compare and calculate different measures, including money in pounds and pence |  |
| **sequence events in chronological order using language**:  before and after, next first today, yesterday, tomorrowmorning, afternoon , evening**recognise and use language relating to dates, including:** days of the week weeks months years | compare and sequence intervals of time  | tell and write the time from an analogue clock, including: using Roman numerals from I to XII, and 12-hour 24-hour clocks |  |  |
| **tell the time:** to the hour  half past the hour  | 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  | estimate and read time with increasing accuracy to the nearest minute; |  |  |
| draw the hands on a clock face to show these times | know the number of minutes in an hour and the number of hours in a day.  | know the number of seconds in a minute and the number of days in each month, year and leap year |  |  |
|  |  | record and compare time in terms of seconds, minutes and hours; use vocabulary such as o’clock, am/pm, morning, afternoon, noon and midnight | read, write and convert time between analogue and digital 12- and 24-hour clocks |
|  |  | compare durations of events [for example, to calculate the time taken by particular events or tasks] | solve problems involving converting from hours to minutes, minutes to seconds,years to months, weeks to days |
| **Geometry****Y1** | **Geometry – properties of shapes Y2** | **Geometry and Properties of Shape Y3** | **Geometry – properties of shapes Y4** |
| recognise and name common 2-D and 3-D shapes, including:2-D shapes rectangles  squarescircles triangles | 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 andpairs of perpendicular and parallel lines | identify lines of symmetry in 2-D shapes presented in different orientationscomplete a simple symmetric figure with respect to a specific line of symmetry |
| recognise and name common 2-D and 3-D shapes, including:3-D shapes cuboids cubes pyramidsspheres | identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces  | draw 2-D shapes |  |
|  | identify 2-D shapes on the surface of 3-D shapes, [for example, a circle on a cylinder and a triangle on a pyramid]  | make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them | compare and classify geometric shapes, including: quadrilaterals and triangles, based on their properties and sizes |
|  | compare and sort common 2-D and 3-D shapes and everyday objects.  |  |  |
| **Geometry – position and direction Y1** | **Geometry – position and direction Y2** | **Geometry – position and direction Y3** | **Geometry – position and direction Y4** |
|  | order and arrange combinations of mathematical objects in patterns and sequences  |  |  |
| describe position, direction and movement, including whole, half, quarter and three-quarter turns | 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 three-quarter turns (clockwise and anti-clockwise).  | recognise angles as a property of shape or a description of a turn |  |
|  |  | identify right angles, recognise that 2 right angles make a half-turn, 3 make three-quarters of a turn and 4 a complete turn; identify whether angles are greater than or less than a right angle | identify acute and obtuse angles and compare and order angles up to 2 right angles by size |
|  |  |  | describe positions on a 2-D grid as coordinates in the first quadrant |
|  |  |  | describe movements between positions as translations of a given unit to the left/right and up/down |
|  |  |  | plot specified points and draw sides to complete a given polygon |
|  |  |  |  |
| **Statistics Y1** | **Statistics Y2** | **Statistics Y3** | **Statistics Y4** |
| Nothing here for y1 | interpret and construct simple pictograms, tally charts, block diagrams and simple tables  | interpret and present data using bar charts, pictograms and tables | interpret and present discrete and continuous data using appropriate graphical methods, including: bar charts and time graphs |
|  | ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity  | solve one-step and two-step questions [for example ‘How many more?’ and ‘How many fewer?’] using information presented in scaled bar charts and pictograms and tables | Solve: comparison, sum and difference problems using information presented in: bar charts, pictograms, tables and other graphs |
|  | ask and answer questions about totalling and comparing categorical data. |  |  |