Numeracy Progression of Skills

		Key Stage 1	Lower Key Stage 2	Upper Key Stage 2
National Curriculum		**Number & Place Value** count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number 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 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 read and write numbers from 1 to 20 in numerals and words. count in steps of 2, 3, and 5 from 0, and in 10s from any number, forward and backward recognise the place value of each digit in a two-digit number (10s, 1s) identify, represent and estimate numbers using different representations, including the number line compare and order numbers from 0 up to 100; use <, > and = signs read and write numbers to at least 100 in numerals and in words use place value and number facts to solve problems. **Addition & Subtraction** read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs represent and use number bonds and related subtraction facts within 20 add and subtract one-digit and two-digit numbers to 20, including 0 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: i. using concrete objects and pictorial representations, including those involving numbers, quantities and measures ii. applying their increasing knowledge of mental and written methods recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100 add and subtract numbers using concrete objects, pictorial representations, and mentally, including:	**Number & Place Value** count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number recognise the place value of each digit in a 3-digit number (100s, 10s, 1s) compare and order numbers up to 1,000 identify, represent and estimate numbers using different representations read and write numbers up to 1,000 in numerals and in words solve number problems and practical problems involving these ideas. count in multiples of 6, 7, 9, 25 and 1,000 find 1,000 more or less than a given number count backwards through 0 to include negative numbers recognise the place value of each digit in a four-digit number (1,000s, 100s, 10s and 1s) order and compare numbers beyond 1,000 identify, represent and estimate numbers using different representations round any number to the nearest 10, 100 or 1,000 solve number and practical problems that involve all of the above and with increasingly large positive numbers 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.	**Number & Place Value** read, write, order and compare numbers to at least 1,000,000 and determine the value of each digit count forwards or backwards in steps of powers of 10 for any given number up to 1,000,000 interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through 0 round any number up to 1,000,000 to the nearest 10, 100, 1,000, 10,000 and 100,000 solve number problems and practical problems that involve all of the above read Roman numerals to 1,000 (M) and recognise years written in Roman numerals. Read, write, order and compare numbers up to 10 000 000 and determine the value of each digit round any whole number to a required degree of accuracy use negative numbers in context, and calculate intervals across 0 solve number and practical problems that involve all of the above. **Addition & Subtraction** add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction) add and subtract numbers mentally with increasingly large numbers use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why. multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context

		i. a two-digit number and 1s ii. a two-digit number and 10s iii. 2 two-digit numbers iv. adding 3 one-digit numbers show that addition of 2 numbers can be done in any order (commutative) and subtraction of one number from another cannot recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems. **Multiplication & Division** 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. recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs show that multiplication of 2 numbers can be done in any order (commutative) and division of 1 number by another cannot solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts. **Fractions** recognise, find and name a half as 1 of 2 equal parts of an object, shape or quantity recognise, 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, 1/4, 2/4 and 3/4 of a length, shape, set of objects or quantity write simple fractions, for example 1/2 of 6 = 3 and recognise the equivalence of 2/4 and 1/2 **Measurement** compare, describe and solve practical problems for: i. lengths and heights [for example, long/short, longer/shorter, tall/short, double/hal] ii. mass / weight iii. capacity and volume iv. time measure and begin to record the following:	**Addition & Subtraction** add and subtract numbers mentally, including: i. a three-digit number and 1s ii. a three-digit number and 10s iii. a three-digit number and 100s add and subtract numbers with up to 3 digits, using formal written methods of columnar addition and subtraction 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. add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate estimate and use inverse operations to check answers to a calculation solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why. **Multiplication & Division** recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-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. recall multiplication and division facts for multiplication tables up to 12 × 12 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 recognise and use factor pairs and commutatively in mental calculations	divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context perform mental calculations, including with mixed operations and large numbers. identify common factors, common multiples and prime numbers use their knowledge of the order of operations to carry out calculations involving the 4 operations solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why solve problems involving addition, subtraction, multiplication and division use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy. **Multiplication & Division** identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers. know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers establish whether a number up to 100 is prime and recall prime numbers up to 19 multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers multiply and divide numbers mentally drawing upon known facts divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context multiply and divide whole numbers and those involving decimals by 10, 100 and 1,000 recognise and use square numbers and cube numbers, and the notation for squared (^{2}) and cubed (^{3}) solve problems involving multiplication and division, including using their knowledge of factors and multiples, squares and cubes solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates. **Fractions (decimals & percentages)**

		i. lengths and heights ii. mass/weight iii. capacity and volume iv. time (hours, minutes, seconds) recognise and know the value of different denominations of coins and notes sequence events in chronological order using language recognise and use language relating to dates, including days of the week, weeks, months and years tell the time to the hour and half past the hour and draw the hands on a clock face to show these times. 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 = 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 solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change compare and sequence intervals of time 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. know the number of minutes in an hour and the number of hours in a day **Properties of Shapes** recognise and name common 2-D and 3-D shapes, including: 2-D shapes 3-D shapes identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces identify 2-D shapes on the surface of 3-D shapes compare and sort common 2-D and 3-D shapes and everyday objects.	multiply two-digit and three-digit numbers by a one-digit number using formal written layout solve problems involving multiplying and 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** 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 recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators recognise and show, using diagrams, equivalent fractions with small denominators add and subtract fractions with the same denominator within one whole compare and order unit fractions, and fractions with the same denominators solve problems that involve all of the above. recognise and show, using diagrams, families of common equivalent fractions count up and down in hundredths; recognise that hundredths arise when dividing an object by a 100 and dividing tenths by 10. 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 add and subtract fractions with the same denominator recognise and write decimal equivalents of any number of tenths or hundredths recognise and write decimal equivalents to ¼; ½; ¾ 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 number	compare and order fractions whose denominators are all multiples of the same number identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number add and subtract fractions with the same denominator and denominators that are multiples of the same number multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams read and write decimal numbers as fractions recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents round decimals with 2 decimal places to the nearest whole number and to 1 decimal place read, write, order and compare numbers with up to 3 decimal places solve problems involving number up to 3 decimal places recognise the per cent symbol (%) and understand that per cent relates to “number of parts per 100”, and write percentages as a fraction with denominator 100, and as a decimal fraction solve problems which require knowing percentage and decimal equivalents of 1/2, 1/4, 1/5, 2/5, 4/5 and fractions with a denominator of a multiple of 10 or 25. use common factors to simplify fractions; use common multiples to express fractions in the same denomination compare and order fractions, including fractions >1 add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions multiply simple pairs of proper fractions, writing the answer in its simplest form divide proper fractions by whole numbers associate a fraction with division and calculate decimal fraction equivalents for a simple fraction. identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1,000 giving answers are up to three decimal places multiply one-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

		Position and Direction describe position, directions and movements, including whole, half, quarter and three-quarter turns. order and arrange combinations of mathematical objects in patterns and sequences 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). **Statistics** interpret and construct simple pictograms, tally charts, block diagrams and tables ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity ask and answer questions about totalling and comparing categorical data.	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** measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml) measure the perimeter of simple 2-D shapes add and subtract amounts of money to give change, using both £ and p in practical contexts tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks 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, am/pm, morning, afternoon, noon and midnight know the number of seconds in a minute and the number of days in each month, year and leap year compare durations of events convert between different units of measure measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres find the area of rectilinear shapes by counting squares estimate, compare and calculate different measures, including money in pounds and pence read, write and convert time between analogue and digital 12 and 24-hour clocks solve problems involving converting from hours to minutes, minutes to seconds, years to months, weeks to days **Properties of Shapes** draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them recognise angles as a property of shape or a description of a turn	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. **Measurement** convert between different units of metric measure understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints 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 (cm^2) and square metres (m^2) and estimate the area of irregular shapes estimate volume and capacity solve problems involving converting between units of time use all four operations to solve problems involving measure using decimal notation including scaling. solve problems involving the calculation and conversion of units of measure, using decimal notation up to 2 decimal places where appropriate 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 3 decimal places convert between miles and kilometres 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 (cm^3) and cubic metres (m^3), and extending to other units **Properties of Shape** identify 3-D shapes, including cubes and other cuboids, from 2-D representations know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles

			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 horizontal and vertical lines and pairs of perpendicular and parallel lines. compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes identify acute and obtuse angles and compare and order angles up to 2 right angles by size identify lines of symmetry in 2-D shapes presented in different orientations complete a simple symmetric figure with respect to a specific line of symmetry. **Position & Direction** 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** interpret and present data using bar charts, pictograms and tables solve one-step and two-step questions using information presented in scaled bar charts and pictograms and tables. interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.	draw given angles, and measure them in degrees (^{o}) identify: angles at a point and 1 whole turn (total 360^{o}) angles at a point on a straight line and half a turn (total 180^{o}) other multiples of 90^{o} use the properties of rectangles to deduce related facts and find missing lengths and angles distinguish between regular and irregular polygons based on reasoning about equal sides and angles. draw 2-D shapes using given dimensions and angles recognise, describe and build simple 3-D shapes, including making nets compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles. **Position & Direction** 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. describe positions on the full coordinate grid (all 4 quadrants) draw and translate simple shapes on the coordinate plane, and reflect them in the axes. **Statistics** solve comparison, sum and difference problems using information presented in a line graph complete, read and interpret information in tables, including timetables. interpret and construct pie charts and line graphs and use these to solve problems calculate and interpret the mean as an average.

				Ratio & Proportion 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 the calculation of percentages and the use of percentages for comparison solve problems involving similar shapes where the scale factor is known or can be found solve problems involving unequal sharing and grouping using knowledge of fractions and multiples. **Algebra** use simple formulae generate and describe linear number sequences express missing number problems algebraically find pairs of numbers that satisfy an equation with two unknowns enumerate possibilities of combinations of 2 variables.

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Place value	**Key vocabulary** **Number** number numeral zero one, two, three … twenty teens numbers, eleven, twelve … twenty twenty-one, twenty-two … one hundred none how many …? count, count (up) to, count on (from, to), count back (from, to) forwards backwards count in ones, twos, fives, tens equal to equivalent to is the same as more, less most, least many odd, even multiple of few pattern pair **Place value** ones tens digit the same number as, as many as more, larger, bigger, greater fewer, smaller, less few, smallest, least most, biggest, largest, greatest one more, ten	**Revise Key Vocabulary** **Number** number numeral zero one, two, three … twenty teens numbers, eleven, twelve … twenty twenty-one, twenty-two … one hundred none how many …? count, count (up) to, count on (from, to), count back (from, to) forwards backwards count in ones, twos, fives, tens equal to equivalent to is the same as more, less most, least many odd, even multiple of few pattern pair **Place value**	**Revise Key vocabulary** **Number** number numeral zero one, two, three … twenty teens numbers, eleven, twelve … twenty twenty-one, twenty-two … one hundred, two hundred … one thousand none how many …? count, count (up) to, count on (from, to), count back (from, to) forwards backwards count in ones, twos, fives, tens, threes, fours and so on, equal to, equivalent to, is the same as, more, less, most, least, tally, many, odd, even, multiple of,	**Revise Key vocabulary** **Number** number numeral zero one, two, three … twenty teens numbers, eleven, twelve … twenty twenty-one, twenty-two … one hundred, two hundred … one thousand … how many …? count, count (up) to, count on (from, to), count back (from, to) forwards, backwards, count in ones, twos, fives, tens, threes, fours, eights, fifties, , equal to, equivalent to, is the same as, more, less most, least, tally ,many odd, even, multiple of, factor of, sequence, continue, predict, few,	**Revise Key vocabulary** **Number** Number, numeral zero, one, two, three … twenty teens numbers, eleven, twelve … twenty twenty-one, twenty-two … one hundred, two hundred … one thousand … ten thousand, hundred thousand, none how many …? count, count (up) to, count on (from, to), count back (from, to) forwards backwards count in ones, twos, fives, tens, threes, fours, eights, fifties, sixes, sevens, nines, twenty-fives and so on to hundreds,	

		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 **New Learning** **Number Place value (within 10)** -Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number. -Count numbers to 100 in numerals; count in multiples of twos, fives and tens. -Identify and represent numbers using objects and pictorial representations. -Read and write numbers to 100 in numerals. -Read and write numbers from 1 to 20 in numerals and words. -Given a number, identify one more and one less. **Small Steps** • Sort objects. • Count objects. • Represent objects. • Count, read and write forwards from any number 0 to 10. • Count, read and writing backwards from any number 0 to 10. • Count one more. • Count one less. • One to one correspondence to start to compare groups. • Compare groups using language such as equal, more/greater, less/fewer. • Introduce = , > and < symbols. • Compare numbers. • Order groups of objects. • Order numbers. • Ordinal numbers (1st, 2nd, 3rd ....). • Numbers to 50. • Tens and ones. • Represent numbers to 50. • One more one less. • Compare objects within 50. • Compare numbers within 50. • Order numbers within 50. • Count in 2s. • Count in 5s. • The number line. • Count forwards and backwards and write numbers to 20 in numerals and words. • Numbers from 11 to 20. • Tens and ones. • Counting to 100.	ones tens digit the same number as, as many as more, larger, bigger, greater fewer, smaller, less few, 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 **New Key vocabulary** **Number** two hundred … one thousand, none, how many …? threes, fours and so on equal to, Tally, multiple of, sequence continue, predict, few, pattern, pair, rule > greater than < less than **Place value** Hundreds, digit, one-, two- or three-digit number place, place value, stands for, represents, exchange, equal to, compare, order, size, first, second, third … twentieth, twenty-first, twenty-second … last **Revision** -Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number. -Count numbers to 100 in numerals; count in multiples of twos, fives and tens. -Identify and represent numbers using objects and pictorial representations. -Read and write numbers to 100 in numerals. -Read and write numbers from 1 to 20 in numerals and words. -Given a number, identify one more and one less. **Small Steps** • Sort objects. • Count objects. • Represent objects. • Count, read and write forwards from any number 0 to 10. • Count, read and writing backwards from any number 0 to 10.	sequence, continue, predict few, pattern, pair, rule > greater than < less than **Place value** ones tens, hundreds digit one-, two- or three-digit, number place, place value stands for, represents, exchange, 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 compare, order size first, second, third … twentieth twenty-first, twenty-second … last, last but one before, after, next, between, halfway between, above, below **New Key Vocabulary** **Number** threes, fours, eights, fifties and so on to hundreds, factor of, sequence, Roman numerals **Place value** one hundred more, one hundred less **Revision** Number: Place value Count in steps of 2,3 and 5 from 0, and in tens from any number, forward and backward. -Read and write numbers to at least 100 in numerals and I words. -Identify, represent and estimate numbers using different representations, including the number line. Recognise the place value of each digit in a two-digit number (tens, ones) -Compare and order numbers from 0 up to 100; use <, > and + signs. -Use place value and number facts to solve problems. **Small Steps** • Count objects to 100 and read and write numbers in numerals	pattern, pair, rule, relationship, next, consecutive > greater than < less than, Roman numerals **Place value** ones tens, hundreds digit one-, two- or three-digit number place, place value stands for, represents exchange 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 hundred more, one less, ten less, one hundred less, one thousand less equal to compare order size first, second, third … twentieth twenty-first, twenty-second … last, last but on before, after next between halfway between above, below **New Key Vocabulary** **Number** ten thousand, hundred thousand, none, sixes, sevens, nines, twenty-fives and so on to hundreds, thousands, integer, positive, negative above/below zero, minus negative numbers **Place value** one thousand more **Revision** -Count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number. -Identify, represent and estimate numbers using different representations. -Read and write numbers up to 1000 in numerals and in words. -Recognise the place value of each digit in a three-digit number (hundreds, tens, ones) -Compare and order numbers up to 1000. -Solve number problems and practical problems involving these ideas **Small Steps** • Hundreds. • Represent numbers to 1,000. • 100s, 10s and 1s (1).	thousands equal to equivalent to is the same as more, less most, least tally many odd, even multiple of, factor of sequence continue predict few pattern pair, rule relationship next, consecutive > greater than < less than Roman numerals integer, positive, negative above/below zero, minus negative numbers **Place value** ones tens, hundreds digit one-, two- or three-digit number place, place value stands for, represents exchange 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 hundred more, one less, ten less, one hundred less, one thousand less equal to compare order size first, second, third … twentieth twenty-first, twenty-second … last, last but on before, after next between halfway between above, below **New Key Vocabulary** **Number** Million, Factor pair, ≥ greater than or equal to ≤ less than or equal, formula, divisibility, square number, prime number, ascending/descending order **Revision** Count in multiples of 6,7, 9, 25 and 1000. -Count backwards through zero to include negative numbers. -Identify, represent and estimate numbers using different representations. -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. -Find 1000 more or less than a given number. -Recognise the place value of each digit in a four-digit number (thousands, hundreds, tens and ones) -Order and compare numbers beyond 1000.	

		• Partitioning numbers.	• Count one more. • Count one less. • One to one correspondence to start to compare groups. • Compare groups using language such as equal, more/greater, less/fewer. • Introduce =, > and < symbols. • Compare numbers. • Order groups of objects. • Order numbers. • Ordinal numbers (1st, 2nd, 3rd ....). • Numbers to 50. • Tens and ones. • Represent numbers to 50. • One more one less. • Compare objects within 50. • Compare numbers within 50. • Order numbers within 50. • Count in 2s. • Count in 5s. • The number line. • Count forwards and backwards and write numbers to 20 in numerals and words. • Numbers from 11 to 20. • Tens and ones. • Counting to 100. • Partitioning numbers. The number line. **New Learning** Number: Place value Count in steps of 2,3 and 5 from 0, and in tens from any number, forward and backward. -Read and write numbers to at least 100 in numerals and I words. -Identify, represent and estimate numbers using different representations, including the number line. Recognise the place value of each digit in a two-digit number (tens, ones)	and words. Represent numbers to 100. • Tens and ones with a part whole model. Tens and ones using addition. • Use a place value chart. • Compare objects. • Compare numbers. • Order objects and numbers. • Count in 2s, 5s and 10s. • Count in 3s. **New Learning** Number: Place value -Count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number. -Identify, represent and estimate numbers using different representations. -Read and write numbers up to 1000 in numerals and in words. -Recognise the place value of each digit in a three-digit number (hundreds, tens, ones) -Compare and order numbers up to 1000. -Solve number problems and practical problems involving these ideas **Small Steps** • Hundreds. • Represent numbers to 1,000. • 100s, 10s and 1s (1). • 100s, 10s and 1s (2). • Number line to 1,000. • Find 1, 10, 100 more or less than a given number. • Compare objects to 1,000. • Compare numbers to 1,000. • Order numbers. Count in 50s.	• 100s, 10s and 1s (2). • Number line to 1,000. • Find 1, 10, 100 more or less than a given number. • Compare objects to 1,000. • Compare numbers to 1,000. • Order numbers. • Count in 50s. **New Learning** Count in multiples of 6,7, 9, 25 and 1000. -Count backwards through zero to include negative numbers. -Identify, represent and estimate numbers using different representations. -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. -Find 1000 more or less than a given number. -Recognise the place value of each digit in a four-digit number (thousands, hundreds, tens and ones) -Order and compare numbers beyond 1000. -Round any number to the nearest 10, 100 or 1000. -Solve number and practical problems that involve all of the above and with increasingly large positive numbers. **Small Steps** • Roman numerals to 100. • Round to the nearest 10. • Round to the nearest 100. • Count in 1,000s. • 1,000s, 100s, 10s and 1s. • Partitioning. • Number line to 10,000. • 1,000 more or less. • Compare numbers. • Order numbers. • Round to the nearest 1,000. • Count in 25s. Negative numbers.	-Round any number to the nearest 10, 100 or 1000. -Solve number and practical problems that involve all of the above and with increasingly large positive numbers. **Small Steps** • Roman numerals to 100. • Round to the nearest 10. • Round to the nearest 100. • Count in 1,000s. • 1,000s, 100s, 10s and 1s. • Partitioning. • Number line to 10,000. • 1,000 more or less. • Compare numbers. • Order numbers. • Round to the nearest 1,000. • Count in 25s. • Negative numbers. **New Learning** -Count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000 -Count forwards and backwards with positive and negative whole numbers, including through zero. -Read, write (order and compare) numbers to at least 1 000 000 and determine the value of each digit. -Read Roman numerals to 1000 (M) and recognise years written in Roman numerals. -(Read, write) order and compare numbers to 1 000 000 and determine the value of each digit. -Interpret negative numbers in context. -Round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000. -Solve number problems and practical problems that involve all of the above. **Small Steps** • Number to 10,000. • Roman numerals to	

			-Compare and order numbers from 0 up to 100; use <, > and + signs. -Use place value and number facts to solve problems. **Small Steps** • Count objects to 100 and read and write numbers in numerals and words. Represent numbers to 100. • Tens and ones with a part whole model. Tens and ones using addition. • Use a place value chart. • Compare objects. • Compare numbers. • Order objects and numbers. • Count in 2s, 5s and 10s. • Count in 3s.			1,000. • Round to the nearest 10, 100 and 1000. • Number to 100,000. • Compare and order numbers to 100,000. • Round numbers within 100,000. • Numbers to a million. • Counting in 10s, 100s, 1,000s, 10,000s and 100,000s. • Compare and order numbers to a million. • Round numbers to a million. • Negative numbers.	
Addition and subtraction		**Key vocabulary** addition add, more, and make, sum, total 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 …? difference between equals is the same as number bonds/pairs missing number **New Learning** -Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs. -Represent and use number bonds and related subtraction facts within 20. -Add and subtract one-digit and two-digit numbers to 20, including zero. Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7+ -9. **Small Steps** • Part whole model. • Addition symbol. • Fact families – Addition facts. • Find number bonds for numbers within 10. • Systematic methods for number bonds	**Revise Key Vocabulary** addition add, more, and make, sum, total 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 …? difference between equals is the same as number bonds/pairs missing number **New Vocabulary** **Addition and subtraction** One hundred more, one hundred less, tens boundary **Estimating** guess how many ...? estimate nearly roughly close to about the same as just over, just under exact, exactly too many, too few, enough, not enough **Revision** -Read, write and interpret mathematical statements involving	**Revise Key Vocabulary** **Addition and Subtracting** Addition, add, more, and make, sum, total, altogether, double, near double, half, halve, one more, two more … ten more … one, hundred 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 … one hundred, less, how many fewer is … than …? how much less is …? Difference between, equals, is the same as, number bonds/pairs/facts, tens boundary **Estimating** guess how many ...? estimate nearly roughly close to, about the same as, just over, just under exact, exactly, too many, too few, enough, not enough **New Vocabulary** **Addition and subtraction** missing number, hundreds boundary, Inverse	**Revise Key Vocabulary** **Addition and Subtracting** Addition, add, more, and make, sum, total, altogether, double, near double, half, halve, one more, two more … ten more … one, hundred 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 … one hundred, less, how many fewer is … than …? how much less is …? difference between, equals, is the same as, number bonds/pairs/facts, missing number, tens boundary, hundreds boundary, Inverse **Estimating** guess how many ...? estimate nearly roughly close to approximate, approximately about the same as just over, just under exact, exactly, too many, too few, enough, not enough, round, nearest, round to the nearest ten, hundred **New Vocabulary** **Estimating**	**Revise Key Vocabulary** **Addition and Subtracting** Addition, add, more, and make, sum, total, altogether, double, near double, half, halve, one more, two more … ten more … one, hundred 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 … one hundred, less, how many fewer is … than …? how much less is …? difference between, equals, is the same as, number bonds/pairs/facts, missing number, tens boundary, hundreds boundary, Inverse **Estimating** guess how many ...? estimate nearly roughly close to approximate, approximately about the same as just over, just under exact, exactly, too many, too few, enough, not enough, round, nearest, round to the nearest ten, hundred, round up, round down **New Vocabulary** **Addition and subtraction** ones boundary, tenths boundary	**Revise Key Vocabulary** **Addition and Subtracting** Addition, add, more, and make, sum, total, altogether, double, near double, half, halve, one more, two more … ten more … one, hundred 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 … one hundred, less, how many fewer is … than …? how much less is …? difference between, equals, is the same as, number bonds/pairs/facts, missing number, tens boundary, hundreds boundary, Inverse, ones boundary, tenths boundary **Estimating** guess how many ...? estimate nearly roughly close to approximate, approximately about the same as just over, just under

		within 10. • Number bonds to 10. • Compare number bonds. • Addition: Adding together. • Addition: Adding more. • Finding a part. • Subtraction: Taking away, how many left? Crossing out. • Subtraction: Taking away, how many left? Introducing the subtraction symbol. • Subtraction: Finding a part, breaking apart. • Fact families – The 8 facts. • Subtraction: Counting back. • Subtraction: Finding the difference. • Comparing addition and subtraction statements a + b > c. • Comparing addition and subtraction statements a + b > c + d. • Add by counting on. • Find and make number bonds. • Add by making 10. • Subtraction – Not crossing 10. • Subtraction – Crossing 10 (1). • Subtraction – Crossing 10 (2). • Related Facts. • Compare Number Sentences.	addition (+), subtraction (-) and equals (=) signs. -Represent and use number bonds and related subtraction facts within 20. -Add and subtract one-digit and two-digit numbers to 20, including zero. Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7+ -9. **Small Steps** • Part whole model. • Addition symbol. • Fact families – Addition facts. • Find number bonds for numbers within 10. • Systematic methods for number bonds within 10. • Number bonds to 10. • Compare number bonds. • Addition: Adding together. • Addition: Adding more. • Finding a part. • Subtraction: Taking away, how many left? Crossing out. • Subtraction: Taking away, how many left? Introducing the subtraction symbol. • Subtraction: Finding a part, breaking apart. • Fact families – The 8 facts. • Subtraction: Counting back. • Subtraction: Finding the difference. • Comparing addition and subtraction statements a + b > c. • Comparing addition and subtraction statements a + b > c + d. • Add by counting on. • Find and make number bonds. • Add by making 10. • Subtraction – Not crossing	**Estimating** approximate, approximately about round, nearest, round to the nearest ten, hundred **Revision** Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100. -Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot. -Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems. -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-digit numbers *Adding three one-digit numbers. -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. **Small Steps** • Fact families – Addition and subtraction bonds to 20. • Check calculations. • Compare number sentences. • Related facts. • Bonds to 100 (tens). • Add and subtract 1s. • 10 more and 10 less. • Add and subtract 10s. • Add a 2-digit and 1-digit number – crossing ten. • Subtract a 1-digit number from a 2-digit	round up, round down **Revision** -Estimate the answer to a calculation and use inverse operations to check answers. -Add and subtract numbers mentally, including: *a three-digit number and ones *a three-digit number and tens *a three-digit number and hundreds -Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction. -solve problems including missing number problems, using number facts, place value and more complex addition and subtraction. **Small Steps** • Add and subtract multiples of 100. • Add and subtract 3-digit numbers and ones – not crossing 10. • Add 3-digit and 1-digit numbers – crossing 10. • Subtract a 1-digit number from a 3-digit number – crossing 10. • Add and subtract 3-digit numbers and tens – not crossing 100. • Add a 3-digit number and tens – crossing 100. • Add and subtract 100s. • Spot the pattern – making it explicit. • Add and subtract a 2-digit and 3-digit number – not crossing 10 or 100. • Add a 2-digit and 3-digit number – crossing 10 or 100. • Subtract 2-digit number from a 3-digit number cross the 10 or 100. • Add two 3-digit numbers – not crossing 10 or 100. • Add two 3-digit numbers – crossing 10 or 100. • Subtract a 3 –digit number	**Estimating** ten thousand, Hundred thousand **Revision** Estimate and use inverse operations to check answers to a calculation. -Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate **Small Steps** • Add and subtract 1s, 10s, 100s and 1000s. • Add two 4-digit numbers – no exchange. • Add two 4-digit numbers – one exchange. • Add two 4-digit numbers – more than one exchange. • Subtract two 4-digit numbers – no exchange. • Subtract two 4-digit numbers – one exchange. • Subtract two 4-digit numbers – more than one exchange. • Efficient subtraction. • Estimate answers. • Checking strategies **New Learning** Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy. -Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction) -Add and subtract numbers mentally with increasingly large numbers. -Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why. -Solve problems involving addition, subtraction, multiplication and division and a combination of these,	exact, exactly, too many, too few, enough, not enough, round, nearest, round to the nearest ten, hundred, round up, round down, ten thousand, hundred thousand **Revision** Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy. -Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction) -Add and subtract numbers mentally with increasingly large numbers. -Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why. -Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of an equals sign. -Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes. -Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates. **Small Steps** • Add whole numbers with more than 4-digits (column method). • Subtract whole numbers with more than 4-digits (column method). • Round to estimate and

			10. • Subtraction – Crossing 10 (1). • Subtraction – Crossing 10 (2). • Related Facts. • Compare Number Sentences. **New Learning** -Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100. -Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot. -Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems. -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-digit numbers *Adding three one-digit numbers. -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. **Small Steps** • Fact families – Addition and subtraction bonds to 20. • Check calculations. • Compare number sentences. • Related facts. • Bonds to 100 (tens). • Add and subtract 1s. • 10 more and 10 less. • Add and subtract 10s. • Add a 2-digit and 1-digit number – crossing ten.	number – crossing 10. • Add two 2-digit numbers – not crossing ten – add ones and add tens. • Add two 2-digit numbers – crossing ten – add ones and add tens. • Subtract a 2-digit number from a 2-digit number – not crossing ten. • Subtract a 2-digit number from a 2-digit number – crossing ten – subtract ones and tens. • Bonds to 100 (tens and ones). Add three 1-digit numbers **New Learning** -Estimate the answer to a calculation and use inverse operations to check answers. -Add and subtract numbers mentally, including: *a three-digit number and ones *a three-digit number and tens *a three-digit number and hundreds -Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction. -solve problems including missing number problems, using number facts, place value and more complex addition and subtraction. **Small Steps** • Add and subtract multiples of 100. • Add and subtract 3-digit numbers and ones – not crossing 10. • Add 3-digit and 1-digit numbers – crossing 10. • Subtract a 1-digit number from a 3-digit number – crossing 10.	from a 3-digit number – no exchange. • Subtract a 3-digit number from a 3-digit number – exchange. • Exchange answers to calculations. • Check. **New Learning** Estimate and use inverse operations to check answers to a calculation. -Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate **Small Steps** • Add and subtract 1s, 10s, 100s and 1000s. • Add two 4-digit numbers – no exchange. • Add two 4-digit numbers – one exchange. • Add two 4-digit numbers – more than one exchange. • Subtract two 4-digit numbers – no exchange. • Subtract two 4-digit numbers – one exchange. • Subtract two 4-digit numbers – more than one exchange. • Efficient subtraction. • Estimate answers. • Checking strategies	including understanding the meaning of an equals sign. -Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes. -Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates. **Small Steps** • Add whole numbers with more than 4- digits (column method). • Subtract whole numbers with more than 4-digits (column method). • Round to estimate and approximate. • Inverse operations (addition and subtraction). • Multi-step addition and subtraction problems	approximate. • Inverse operations (addition and subtraction). Multi-step addition and subtraction problems **New Learning** Perform mental calculations, including with mixed operations and large numbers. -Use their knowledge of the order of operations to carry out calculations involving the four operations. -Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why. **Small Steps** • Add and subtract whole numbers. • Multiply up to 4-digit by 1-digit number. • Short division. • Division using factors. • Long division (1). • Long division (2). • Long division (3). • Long division (4). • Common factors. • Common multiples. • Primes. • Squares and cubes. • Order of operations. • Mental calculations and estimation.

			• Subtract a 1-digit number from a 2-digit number – crossing 10. • Add two 2-digit numbers – not crossing ten – add ones and add tens. • Add two 2-digit numbers – crossing ten – add ones and add tens. • Subtract a 2-digit number from a 2-digit number – not crossing ten. • Subtract a 2-digit number from a 2-digit number – crossing ten – subtract ones and tens. • Bonds to 100 (tens and ones). • Add three 1-digit numbers.	• Add and subtract 3-digit numbers and tens – not crossing 100. • Add a 3-digit number and tens – crossing 100. • Add and subtract 100s. • Spot the pattern – making it explicit. • Add and subtract a 2-digit and 3-digit number – not crossing 10 or 100. • Add a 2-digit and 3-digit number – crossing 10 or 100. • Subtract 2-digit number from a 3-digit number cross the 10 or 100. • Add two 3-digit numbers – not crossing 10 or 100. • Add two 3-digit numbers – crossing 10 or 100. • Subtract a 3 –digit number from a 3-digit number – no exchange. • Subtract a 3-digit number from a 3-digit number – exchange. • Exchange answers to calculations. • Check.			• Reasoning from known facts.
Multiplication		**Key Vocabulary** Multiplication, multiply, multiplied by, multiple, division, dividing, grouping, sharing, doubling, halving, array, number patterns **New Learning** (reinforce multiples of 2, 5 and 10 to be included -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. **Small Steps** • Count in 10s. • Make equal groups.	**Revise Key Vocabulary** Multiplication, multiply, multiplied by, multiple, division, dividing, grouping, sharing, doubling, halving, array, number patterns **New Vocabulary** groups of times once, twice, three times … ten times repeated addition, divide, divided by, divided into, share, share equally, left, left over, one each, two each, three each … ten each, group in pairs, threes … tens, equal groups of, row, column, multiplication table, multiplication fact, division fact	**Revise Key Vocabulary** Multiplication, multiply, multiplied by, multiple, division, dividing, grouping, sharing, doubling, halving, array, number patterns, groups of times once, twice, three times … ten times repeated addition, divide, divided by, divided into, share, share equally, left, left over, one each, two each, three each … ten each, group in pairs, threes … tens, equal groups of, row, column, multiplication table, multiplication fact, division fact **New Vocabulary**	**Revise Key Vocabulary** Multiplication, multiply, multiplied by, multiple, division, dividing, grouping, sharing, doubling, halving, array, number patterns, groups of times once, twice, three times … ten times repeated addition, divide, divided by, divided into, share, share equally, left, left over, one each, two each, three each … ten each, group in pairs, threes … tens, equal groups of, row, column, multiplication table, multiplication fact, division fact Factor, Product, left over, left, remainder **New Vocabulary**	**Revise Key Vocabulary** Multiplication, multiply, multiplied by, multiple, division, dividing, grouping, sharing, doubling, halving, array, number patterns, groups of times once, twice, three times … ten times repeated addition, divide, divided by, divided into, share, share equally, left, left over, one each, two each, three each … ten each, group in pairs, threes … tens, equal groups of, row, column, multiplication table, multiplication fact, division fact Factor, Product, left over, left, remainder inverse square, squared cube, cubed	**Revise Key Vocabulary** Multiplication, multiply, multiplied by, multiple, division, dividing, grouping, sharing, doubling, halving, array, number patterns, groups of times once, twice, three times … ten times repeated addition, divide, divided by, divided into, share, share equally, left, left over, one each, two each, three each … ten each, group in pairs, threes … tens, equal groups of, row, column, multiplication table,

and division		• Add equal groups. • Make arrays. • Make doubles. • Make equal groups – grouping. • Make equal groups – sharing	**Revision** reinforce multiples of 2, 5 and 10 to be included -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. **Small Steps** • Count in 10s. • Make equal groups. • Add equal groups. • Make arrays. • Make doubles. • Make equal groups – grouping. • Make equal groups – sharing **New Learning** Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables, including recognising odd and even numbers. -Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot. -Calculate mathematical statements for multiplication and division within the multiplication tables and write then using the multiplication (x), division (÷) and equals (=) signs. -Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts. **Small Steps** • Recognise equal groups. • Make equal groups. • Add equal groups. • Multiplication sentences using the x symbol. • Multiplication sentences from pictures. • Use arrays. • 2 times-table. • 5 times-table. • 10 times-table. • Make equal groups –	Factor, Product, left over, left, remainder **Revision** Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables, including recognising odd and even numbers. -Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot. -Calculate mathematical statements for multiplication and division within the multiplication tables and write then using the multiplication (x), division (÷) and equals (=) signs. -Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts. **Small Steps** • Recognise equal groups. • Make equal groups. • Add equal groups. • Multiplication sentences using the x symbol. • Multiplication sentences from pictures. • Use arrays. • 2 times-table. • 5 times-table. • 10 times-table. • Make equal groups – sharing. • Make equal groups – grouping. • Divide by 2. • Odd and even numbers. • Divide by 5. • Divide by 10. **New Learning** Recall and use multiplication and division facts for the 3,4 and 8 multiplication tables. -Write and calculate mathematical statements for multiplication and division using the multiplication	inverse square, squared cube, cubed **Revision** Recall and use multiplication and division facts for the 3,4 and 8 multiplication tables. -Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods **Small Steps** • Multiplication – equal groups. • Multiplying by 3. • Dividing by 3. • The 3 times-table. • Multiplying by 4. • Dividing by 4. • The 4 times-table. • Multiplying by 8. • Dividing by 8. • The 8 times-table. • Comparing statements. • Related calculations. • Multiply 2-digits by 1-digit (1). • Multiply 2-digits by 1-digit (2). • Divide 2-digits by 1-digit (1). • Divide 2-digits by 1-digit (2). • Divide 2-digits by 1-digit (3). • Scaling. How many ways? **New Learning** -Recall multiplication and division facts for multiplication tables up to 12 x 12. -Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers. -Recognise and use factor pairs and commutatively in mental calculations. -Solve addition and subtraction two-step problems in contexts, deciding which	**Revision** -Recall multiplication and division facts for multiplication tables up to 12 x 12. -Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers. -Recognise and use factor pairs and commutatively in mental calculations. -Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why. **Small Steps** • Multiply by 10. • Multiply by 100. • Divide by 10. • Divide by 100. • Multiply by 1 and 0. • Divide by 1. • Multiply and divide by 6. • 6 times-table and division facts. • Multiply and divide by 9. • 9 times-table and division facts. • Multiply and divide by 7. • 7 times-table and division facts • 11 and 12 times-table. • Multiply 3 numbers. • Factor pairs. • Efficient multiplication. • Written methods. • Multiply 2-digits by 1 – digit. • Multiply 3-digits by 1-digit. • Divide 2-digits by 1-digit (1). • Divide 2-digits by 1-digit (2). Correspondence problems	multiplication fact, division fact Factor, Product, left over, left, remainder inverse square, squared cube, cubed **Revision** Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers. -Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers. -Establish whether a number up to 100 is prime and recall prime numbers up to 19. -Recognise and use square numbers and cube numbers, and the notation for squared (^{2}) and cubed (^{3}) -Multiply numbers up to 4-digits by a one or two-digit number using a formal written method, including long multiplication for two-digit numbers. -Multiply and divide numbers mentally drawing upon known facts. -Divide numbers up to 4 digits by a one-digit number using the formal written methods of short division and interpret remainders appropriately for the context. -Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000. -Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes. -Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates. -Solve problems involving addition, subtraction,

			sharing. • Make equal groups – grouping. • Divide by 2. • Odd and even numbers. • Divide by 5. • Divide by 10.	tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods **Small Steps** • Multiplication – equal groups. • Multiplying by 3. • Dividing by 3. • The 3 times-table. • Multiplying by 4. • Dividing by 4. • The 4 times-table. • Multiplying by 8. • Dividing by 8. • The 8 times-table. • Comparing statements. • Related calculations. • Multiply 2-digits by 1-digit (1). • Multiply 2-digits by 1-digit (2). • Divide 2-digits by 1-digit (1). • Divide 2-digits by 1-digit (2). • Divide 2-digits by 1-digit (3). • Scaling. How many ways?	operations and methods to use and why. **Small Steps** • Multiply by 10. • Multiply by 100. • Divide by 10. • Divide by 100. • Multiply by 1 and 0. • Divide by 1. • Multiply and divide by 6. • 6 times-table and division facts. • Multiply and divide by 9. • 9 times-table and division facts. • Multiply and divide by 7. • 7 times-table and division facts • 11 and 12 times-table. • Multiply 3 numbers. • Factor pairs. • Efficient multiplication. • Written methods. • Multiply 2-digits by 1 –digit. • Multiply 3-digits by 1-digit. • Divide 2-digits by 1-digit (1). • Divide 2-digits by 1-digit (2). Correspondence problems.	**New Learning** Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers. -Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers. -Establish whether a number up to 100 is prime and recall prime numbers up to 19. -Recognise and use square numbers and cube numbers, and the notation for squared (^{2}) and cubed (^{3}) -Multiply numbers up to 4-digits by a one or two-digit number using a formal written method, including long multiplication for two-digit numbers. -Multiply and divide numbers mentally drawing upon known facts. -Divide numbers up to 4 digits by a one-digit number using the formal written methods of short division and interpret remainders appropriately for the context. -Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000. -Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes. -Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates. -Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign. **Small Steps** • Multiples. • Factors. • Common factors. • Prime numbers. • Square numbers. • Cube numbers. • Multiplying by 10, 100 and 1000. • Dividing by 10, 100 and 1000. • Multiples of 10, 100 and 1000.	multiplication and division and a combination of these, including understanding the meaning of the equals sign. **Small Steps** • Multiples. • Factors. • Common factors. • Prime numbers. • Square numbers. • Cube numbers. • Multiplying by 10, 100 and 1000. • Dividing by 10, 100 and 1000. • Multiples of 10, 100 and 1000. • Multiply 4-digits by 1-digit. • Multiply 2-digits (area model). • Multiply 2-digits by 2-digits. • Multiply 3-digits by 2-digits. • Multiply 4-digits by 2-digits. • Divide 4-digits by 1-digit. • Divide with remainders **New Learning** Identify common factors, common multiples and prime numbers. -Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy. -Multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication. -Divide numbers up to 4 digits by a two-digit whole number using the formal written method of long

						• Multiply 4-digits by 1-digit. • Multiply 2-digits (area model). • Multiply 2-digits by 2-digits. • Multiply 3-digits by 2-digits. • Multiply 4-digits by 2-digits. • Divide 4-digits by 1-digit. • Divide with remainders	division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context. -Divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context. -Perform mental calculations, including with mixed operations and large numbers. -Solve problems involving addition, subtraction, multiplication and division. -Use their knowledge of the order of operations to carry out calculations involving the four operations. **<u>Small Steps</u>** • Short division. • Division using factors. • Long division (1). • Long division (2). • Long division (3). • Long division (4). • Common factors. • Common multiples. • Primes. • Squares and cubes. • Order of operations. • Mental calculations and estimation. Reasoning from known facts.

Fractions, decimals and percentages (ratio)	•	**Key Vocabulary** Fraction, equal part, equal grouping, equal sharing, parts of a whole, half, one of two equal parts, quarter, one of four equal parts **New Learning** -Recognise, find and name half as one of two equal parts of an object, shape or quantity. -Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity. **Small Steps** • Halving shapes or objects. • Halving a quantity. • Find a quarter of a shape or object. • Find a quarter of a quantity.	**Revise Key Vocabulary** Fraction, equal part, equal grouping, equal sharing, parts of a whole, half, one of two equal parts, quarter, one of four equal parts **New Vocabulary** equivalent fraction, mixed number, numerator, denominator, two quarters, three quarters one third, two thirds, one of three equal parts **Revision** -Recognise, find and name half as one of two equal parts of an object, shape or quantity. -Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity. **Small Steps** • Halving shapes or objects. • Halving a quantity. • Find a quarter of a shape or object. • Find a quarter of a quantity. **New Learning** -Recognise, find, name and write fractions 1/3, ¼, 2/4 and ¾ of a length, shape, set of objects or quantity. -Recognise the equivalence of 2/4 and ½. -Write simple fractions for example, ½ of 6 = 3 **Small Steps** • Make equal parts. • Recognise half. • Find half. • Recognise quarter. • Find a quarter. • Recognise a third. • Find a third. • Unit fractions. • Non0unit fractions. • Equivalence of 1⁄2 and	**Revise Key Vocabulary** Fraction, equal part, equal grouping, equal sharing, parts of a whole, half, one of two equal parts, quarter, one of four equal parts, equivalent fraction, mixed number, numerator, denominator, two quarters, three quarters one third, two thirds, one of three equal parts **New Vocabulary** **s**ixths, sevenths, eighths, tenths… **Revision** -Recognise, find, name and write fractions 1/3, ¼, 2/4 and ¾ of a length, shape, set of objects or quantity. -Recognise the equivalence of 2/4 and ½. -Write simple fractions for example, ½ of 6 = 3 **Small Steps** • Make equal parts. • Recognise half. • Find half. • Recognise quarter. • Find a quarter. • Recognise a third. • Find a third. • Unit fractions. • Non0unit fractions. • Equivalence of 1⁄2 and 2/4. • Find three quarters. • Count in fractions. **New Learning** -Recognise and show, using diagrams, equivalent fractions with small denominators. -Compare and order unit fractions, and fractions with the same denominators. -Add and subtract fractions with the same denominator within one whole [for example 5/7 + 1/7 = 6/7] -Solve problems that involve all of the above.	**Revise Key Vocabulary** Fraction, equal part, equal grouping, equal sharing, parts of a whole, half, one of two equal parts, quarter, one of four equal parts, equivalent fraction, mixed number, numerator, denominator, two quarters, three quarters one third, two thirds, one of three equal parts **s**ixths, sevenths, eighths, tenths… **New Vocabulary** hundredths decimal, decimal fraction, decimal point, decimal place, decimal, equivalent proportion **Revision** -Recognise and show, using diagrams, equivalent fractions with small denominators. -Compare and order unit fractions, and fractions with the same denominators. -Add and subtract fractions with the same denominator within one whole [for example 5/7 + 1/7 = 6/7] -Solve problems that involve all of the above. Count up and down in hundredth; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10. -Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators. -Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators. -Solve problems that involve all of the above. **Small Steps** • Unit and non-unit fractions. • Making the whole. • Tenths. • Count in tenths. • Tenths as decimals. • Fractions of a number line. • Fractions of a set of objects (1). • Fractions of a set of objects (2). • Fractions of a set of objects	**Revise Key Vocabulary** Fraction, equal part, equal grouping, equal sharing, parts of a whole, half, one of two equal parts, quarter, one of four equal parts, equivalent fraction, mixed number, numerator, denominator, two quarters, three quarters one third, two thirds, one of three equal parts **s**ixths, sevenths, eighths, tenths… hundredths decimal, decimal fraction, decimal point, decimal place, decimal, equivalent proportion **New Vocabulary** in every, for every percentage, per cent, % proper/improper, thousandths **Revision** Count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten. -Recognise and show, using diagrams, families of common equivalent fractions. -Add and subtract fractions with the same denominator. -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. -Solve simple measure and money problems involving fractions and decimals to two decimal places. **Number: Decimals** -Recognise and write decimal equivalents of any number of tenths or hundredths. -Recognise and write decimal equivalents to ¼, ½. ¾ **Small Steps** • What is a fraction? • Equivalent fractions (1) • Equivalent fractions (2). • Fractions greater than 1. • Count in fractions. • Add 2 or more fractions. • Subtract 2 fractions. • Subtract from whole	**Revise Key Vocabulary** **Revision** fractions of a given fraction, represented visually, including tenths and hundredths. -Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements >1 as a mixed number [for example 2/3 + 4/5 = 6/5 = 1 1/5] -Compare and order fractions whose denominators are all multiples of the same number. -Add and subtract fractions with the same denominator and denominators that are multiples of the same number. -Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams. **Number: Decimals and Percentages** -Read and write decimal numbers as fractions [for example, 0.71 = 71/100]. -Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents. -Round decimals with two decimal places to the nearest whole number and to one decimal place. -Read, write, order and compare numbers with up to three decimal places. -Recognise the percent symbol (%) and understand that percent relates to 'number of parts per hundred' and write percentages as a fraction with denominator 100, and as a decimal. -Solve problems which require knowing percentage and decimal equivalents of ½, ¼, 1/5, 2/5, 4/5 and those

			2/4. • Find three quarters. • Count in fractions.	Count up and down in hundredth; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10. -Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators. -Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators. -Solve problems that involve all of the above. **Small Steps** • Unit and non-unit fractions. • Making the whole. • Tenths. • Count in tenths. • Tenths as decimals. • Fractions of a number line. • Fractions of a set of objects (1). • Fractions of a set of objects (2). • Fractions of a set of objects (3) • Equivalent fractions (1), • Equivalent fractions (2). • Equivalent fractions (3). • Compare fractions. • Order fractions. • Add fractions. • Subtract fractions.	(3) • Equivalent fractions (1), • Equivalent fractions (2). • Equivalent fractions (3). • Compare fractions. • Order fractions. • Add fractions. • Subtract fractions. **New Learning** Count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten. -Recognise and show, using diagrams, families of common equivalent fractions. -Add and subtract fractions with the same denominator. -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. -Solve simple measure and money problems involving fractions and decimals to two decimal places. **Number: Decimals** -Recognise and write decimal equivalents of any number of tenths or hundredths. -Recognise and write decimal equivalents to ¼, ½. ¾ **Small Steps** • What is a fraction? • Equivalent fractions (1) • Equivalent fractions (2). • Fractions greater than 1. • Count in fractions. • Add 2 or more fractions. • Subtract 2 fractions. • Subtract from whole amounts. • Calculate fractions of a quantity. • Problem solving – calculate quantities. • Recognise tenths and hundredths. • Tenths as decimals. • Tenths on a place value grid.	amounts. • Calculate fractions of a quantity. • Problem solving – calculate quantities. • Recognise tenths and hundredths. • Tenths as decimals. • Tenths on a place value grid. • Tenths on a number line. • Divide 1 digit by 10. • Divide 2 digits by 10. • Hundredths. • Hundredths as decimals. • Hundredths on a place value grid. • Divide 1 or 2 digits by 100 • Make a whole. • Write decimals. • Compare decimals. • Order decimals. • Round decimals. • Halves and quarters. **New Learning** Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths. -Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements >1 as a mixed number [for example 2/3 + 4/5 = 6/5 = 1 1/5] -Compare and order fractions whose denominators are all multiples of the same number. -Add and subtract fractions with the same denominator and denominators that are multiples of the same number. -Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams. **Number: Decimals and Percentages** -Read and write decimal numbers as fractions [for example, 0.71 = 71/100].	fractions with a denominator of a multiple of 10 or 25. Solve problems involving number up to three decimal places. **Small Steps** • Equivalent fractions. • Improper fractions to mixed numbers. • Mixed numbers to improper fractions. • Number sequences. • Compare and order fractions less than 1. • Compare and order fractions greater than 1. • Add and subtract fractions. • Add fractions within 1. • Add 3 or more fractions. • Add fractions. • Add mixed numbers. • Subtract fractions. • Subtract mixed numbers. • Subtract – breaking the whole. • Subtract 2 mixed numbers. • Multiply unit fractions by an integer. • Multiply non-unit fractions by an integer. • Multiply mixed numbers by integers. • Fraction of an amount. • Using fractions

					• Tenths on a number line. • Divide 1 digit by 10. • Divide 2 digits by 10. • Hundredths. • Hundredths as decimals. • Hundredths on a place value grid. • Divide 1 or 2 digits by 100 • Make a whole. • Write decimals. • Compare decimals. • Order decimals. • Round decimals. Halves and quarters.	-Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents. -Round decimals with two decimal places to the nearest whole number and to one decimal place. -Read, write, order and compare numbers with up to three decimal places. -Recognise the percent symbol (%) and understand that percent relates to 'number of parts per hundred' and write percentages as a fraction with denominator 100, and as a decimal. -Solve problems which require knowing percentage and decimal equivalents of ½, ¼, 1/5, 2/5, 4/5 and those fractions with a denominator of a multiple of 10 or 25. Solve problems involving number up to three decimal places. **Small Steps** • Equivalent fractions. • Improper fractions to mixed numbers. • Mixed numbers to improper fractions. • Number sequences. • Compare and order fractions less than 1. • Compare and order fractions greater than 1. • Add and subtract fractions. • Add fractions within 1. • Add 3 or more fractions. • Add fractions. • Add mixed numbers. • Subtract fractions. • Subtract mixed numbers. • Subtract – breaking the whole. • Subtract 2 mixed numbers. • Multiply unit fractions by an integer. • Multiply non-unit fractions by an integer. • Multiply mixed numbers by integers. • Fraction of an amount. • Using fractions as	as operators. • Decimals up to 2 d.p. • Decimals as fractions (1). • Decimals as fractions (2). • Understand thousandths. • Thousands as decimals. • Rounding decimals. • Order and compare decimals. • Understand percentages. • Percentages as fractions and decimals. • Equivalent F.D.P. • Adding decimals within 1. • Subtracting decimals within 1. • Complements to 1. • Adding decimals – crossing the whole. • Adding decimals with the same number of decimal places. • Subtracting decimals with the same number of decimal places. • Adding decimals with a different number of decimal places. • Subtracting decimals with a different number of decimal places. • Adding and subtracting whole and decimals.

						operators. • Decimals up to 2 d.p. • Decimals as fractions (1). • Decimals as fractions (2). • Understand thousandths. • Thousands as decimals. • Rounding decimals. • Order and compare decimals. • Understand percentages. • Percentages as fractions and decimals. • Equivalent F.D.P. • Adding decimals within 1. • Subtracting decimals within 1. • Complements to 1. • Adding decimals – crossing the whole. • Adding decimals with the same number of decimal places. • Subtracting decimals with the same number of decimal places. • Adding decimals with a different number of decimal places. • Subtracting decimals with a different number of decimal places. • Adding and subtracting whole and decimals. • Decimal sequences. • Multiplying decimals by 10, 100 and 1000. Dividing decimals by 10, 100 and 1,000.	• Decimal sequences. • Multiplying decimals by 10, 100 and 1000. Dividing decimals by 10, 100 and 1,000. **New Learning** Use common factors to simplify fractions, use common multiples to express fractions in the same denomination. Compare and order fractions, including fractions >1 Add and subtract fractions with different denominators and mixed numbers, suing the concept of equivalent fractions. Multiply simple pairs of proper fractions, writing the answer in its simplest form [for example, ½ x ½ = ¼] Divide proper fractions by whole numbers [for example 1/3 ÷ 2 = 1/6] **Number: Decimals** Identify the value of each digit in numbers given to three decimal places. Multiply and divide numbers by 10,100 and 1000 giving answers up to three decimal places. Multiply one-digit numbers with up to two decimal places by whole numbers. Use written division methods in cases where the answer has up to two decimal places. Solve problems which require answers to be rounded to specified degrees of accuracy. **Number: Percentages** Associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a

							simple fraction [for example 3/8] Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts. **Number: Ratio** 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 the calculation of percentages [for example, of measures and such as 15% of 360] and the use of percentages for comparison. Solve problems involving similar shapes where the scale factor is known or can be found. -Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples. **Small Steps** • Simplify fractions. • Fractions on a number line. • Compare & order (denominator). • Compare & order (numerator). • Add & subtract fractions (1). • Add & subtract fractions (2). • Adding fractions. • Subtracting fractions. • Mixed addition and subtraction. • Multiply fractions by integers.

							• Multiply fractions by fractions. • Divide fractions by integers (1). • Divide fractions by integers (2). • Four rules with fractions. • Fraction of an amount. • Finding the whole. • Three decimal places. • Multiply by 10, 100 and 1,000. • Divide by 10, 100 and 1,000. • Multiply decimals by integers. • Divide decimals by integers. • Division to solve problems. • Decimals as fractions. • Fractions to decimals (1). • Fractions to decimals (2). • Fractions to percentages. • Equivalent FDP. • Percentage of an amount (1). • Percentage of an amount (2). • Percentages – missing values. • Percentage increase and decrease. • Order FDP. • Use ratio language. • Ratio and fractions. • Introducing the

							ratio symbol. • Calculating ratio. • Using scale factors. • Calculating scale factors. • Ratio and proportion problems.
Geometry: Shape	•	**Key Vocabulary** **Properties of shape** shape, pattern flat curved, straight round hollow, solid sort, make, build, draw size bigger, larger, smaller symmetry, symmetrical, symmetrical pattern pattern, repeating pattern match **2-D shape** corner, side point, pointed rectangle (including square) circle triangle **3-D shape** face, edge, vertex, vertices cube, cuboid pyramid sphere cone cylinder **New learning** -Recognise and name common 2-D shapes [for example, rectangles (including squares), circles and triangles] -Recognise and name common 3-D shapes [for example, cuboids (including cubes), pyramids and spheres] **Small Steps** • Recognise and name 3D shapes. • Sort 3D shapes. • Recognise and name 2D shapes. • Sort 2D shapes. • Patterns with 3D and 2D shapes	**Revise Key Vocabulary** **Properties of shape** shape, pattern flat curved, straight round hollow, solid sort, make, build, draw size bigger, larger, smaller symmetry, symmetrical, symmetrical pattern pattern, repeating pattern match **2-D shape** corner, side point, pointed rectangle (including square) circle triangle **3-D shape** face, edge, vertex, vertices cube, cuboid pyramid sphere cone cylinder **New Vocabulary** **Properties of shape** Surface **2-D shape** rectangular, circle, triangular, pentagon, hexagon, octagon **3-D shape** least popular, least common **Revision** Recognise and name common 2-D shapes [for example, rectangles (including squares), circles and triangles]	**Revise Key Vocabulary** **Properties of shape** shape, pattern flat curved, straight round hollow, solid sort, make, build, draw size bigger, larger, smaller symmetry, symmetrical, symmetrical pattern pattern, repeating pattern match, Surface **2-D shape** corner, side point, pointed rectangle (including square) circle triangle, rectangular, circle, triangular, pentagon, hexagon, octagon **3-D shape** face, edge, vertex, vertices cube, cuboid pyramid sphere cone cylinder, least popular, least common **New Vocabulary** **Properties of shape** perimeter **2-D shape** rectangular circle, triangular, pentagonal, hexagonal, octagonal quadrilateral right-angled parallel, perpendicular **3-D shape** hemisphere, prism, triangular prism **Revision**	**Revise Key Vocabulary** **Properties of shape** shape, pattern flat curved, straight round hollow, solid sort, make, build, draw size bigger, larger, smaller symmetry, symmetrical, symmetrical pattern pattern, repeating pattern match, Surface, perimeter **2-D shape** corner, side point, pointed rectangle (including square) circle triangle, rectangular, circle, triangular, pentagon, hexagon, octagon, rectangular circle, triangular, pentagonal, hexagonal, octagonal quadrilateral right-angled parallel, perpendicular **3-D shape** face, edge, vertex, vertices cube, cuboid pyramid sphere cone cylinder, least popular, least common, hemisphere, prism, triangular prism **New Vocabulary** **Properties of shape** construct, sketch, centre , angle, right-angled base, square-based regular, irregular **2-D shape** 2-D, two-dimensional oblong equilateral triangle, isosceles triangle, scalene triangle heptagon quadrilateral parallelogram, rhombus, trapezium polygon **3-D shape**	**Revise Key Vocabulary** **Properties of shape** shape, pattern flat curved, straight round hollow, solid sort, make, build, draw size bigger, larger, smaller symmetry, symmetrical, symmetrical pattern pattern, repeating pattern match, Surface, perimeter construct, sketch, centre, construct, sketch, centre, angle, right-angled base, square-based regular, irregular **2-D shape** corner, side point, pointed rectangle (including square) circle triangle, rectangular, circle, triangular, pentagon, hexagon, octagon, rectangular circle, triangular, pentagonal, hexagonal, octagonal quadrilateral right-angled parallel, perpendicular, 2-D, two-dimensional oblong equilateral triangle, isosceles triangle, scalene triangle heptagon quadrilateral parallelogram, rhombus, trapezium polygon **3-D shape** face, edge, vertex, vertices cube, cuboid pyramid sphere cone cylinder, least popular, least common, hemisphere, prism, triangular prism, 3-D, three-dimensional, cylindrical prism, tetrahedron, polyhedron **New Vocabulary** **Properties of shape**	**Revise Key Vocabulary** **Properties of shape** shape, pattern flat curved, straight round hollow, solid sort, make, build, draw size bigger, larger, smaller symmetry, symmetrical, symmetrical pattern pattern, repeating pattern match, Surface, perimeter construct, sketch, centre, construct, sketch, centre, angle, right-angled base, square-based regular, irregular, congruent, axis of symmetry, reflective **2-D shape** corner, side point, pointed rectangle (including square) circle triangle, rectangular, circle, triangular, pentagon, hexagon, octagon, rectangular circle, triangular, pentagonal, hexagonal, octagonal quadrilateral right-angled parallel, perpendicular, 2-D, two-dimensional oblong equilateral triangle, isosceles triangle, scalene triangle heptagon quadrilateral parallelogram, rhombus, trapezium polygon, x-axis, y-axis, quadrant **3-D shape** face, edge, vertex, vertices cube, cuboid pyramid sphere cone cylinder, least popular, least common, hemisphere,

			-Recognise and name common 3-D shapes [for example, cuboids (including cubes), pyramids and spheres] **Small Steps** • Recognise and name 3D shapes. • Sort 3D shapes. • Recognise and name 2D shapes. • Sort 2D shapes. • Patterns with 3D and 2D shapes **New learning** Identify and describe the properties of 2-D shapes, including the number of side and symmetry in a vertical line Identify 2-D shapes on the surface of 3-D shapes Compare and sort common 2-D shapes and everyday objects **Small Steps** • Recognise 2D and 3D shapes. • Count sides on 2D shapes. • Count vertices on 2D shapes. • Draw 2D shapes. • Lines of symmetry. • Sort 2D shapes. • Make patterns with 2D shapes. • Count faces on 3D shapes. • Count edges on 3D shapes. • Count vertices on 3D shapes. • Sort 3D shapes. • Make patterns with 3D shapes	Identify and describe the properties of 2-D shapes, including the number of side and symmetry in a vertical line Identify 2-D shapes on the surface of 3-D shapes Compare and sort common 2-D shapes and everyday objects **Small Steps** • Recognise 2D and 3D shapes. • Count sides on 2D shapes. • Count vertices on 2D shapes. • Draw 2D shapes. • Lines of symmetry. • Sort 2D shapes. • Make patterns with 2D shapes. • Count faces on 3D shapes. • Count edges on 3D shapes. • Count vertices on 3D shapes. • Sort 3D shapes. • Make patterns with 3D shapes **New learning** -Recognise angles as a property of shape or a description of a turn. -Identify right angles, recognise that two right angles make a half turn, three make three quarters of a turn and four complete a turn; identify whether angles are greater than or less than a right angle. -Identify horizontal and vertical lines and pairs of perpendicular and parallel lines. -Draw 2-D shapes. -Make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them. **Small Steps** • Turns and angles. • Right angles in shapes. • Compare angles. • Draw accurately. • Horizontal and vertical.	3-D, three-dimensional cylindrical prism, tetrahedron, polyhedron **Revision** Recognise angles as a property of shape or a description of a turn. -Identify right angles, recognise that two right angles make a half turn, three make three quarters of a turn and four complete a turn; identify whether angles are greater than or less than a right angle. -Identify horizontal and vertical lines and pairs of perpendicular and parallel lines. -Draw 2-D shapes. -Make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them. **Small Steps** • Turns and angles. • Right angles in shapes. • Compare angles. • Draw accurately. • Horizontal and vertical. • Parallel and perpendicular. • Recognise and describe 2D shapes. • Recognise and describe 3D shapes. • Make 3D shapes **New learning** -Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes. -Identify lines of symmetry in 2-D shapes presented in different orientations. -Identify acute and obtuse angles and compare and order angles up to two right angles by size. -Identify lines of symmetry in 2-D shapes presented in different orientations.	congruent, axis of symmetry, reflective **2-D shape** x-axis, y-axis, quadrant **3-D shape** octahedron net, open, closed **Revision** Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes. -Identify lines of symmetry in 2-D shapes presented in different orientations. -Identify acute and obtuse angles and compare and order angles up to two right angles by size. -Identify lines of symmetry in 2-D shapes presented in different orientations. -Complete a simple symmetric figure with respect to a specific line of symmetry **Small Steps** • Identify angles. • Compare and order angles. • Triangles. • Quadrilaterals. • Lines of symmetry. • Complete a symmetric figure. **New learning** Distinguish between regular and irregular polygons based on reasoning about equal sides and angles. -Use the properties of rectangles to deduce related facts and find missing lengths and angles.	prism, triangular prism, 3-D, three-dimensional, cylindrical prism, tetrahedron, polyhedron, octahedron net, open, closed **Revision** Distinguish between regular and irregular polygons based on reasoning about equal sides and angles. -Use the properties of rectangles to deduce related facts and find missing lengths and angles. -Identify 3-D shapes, including cubes and other cuboids, from 2-D representations. -Know angles and measured in degrees: estimate and compare acute, obtuse and reflex angles. -Draw given angles, and measure them in degrees. -Identify: *Angles at a point and one whole turn (total 360°) **Small Steps** • -Other multiples of 90° • Measuring angles in degrees. • Measuring with a protractor (1). • Measuring with a protractor (2). • Drawing lines and angles accurately. • Calculating angles on a straight line. • Calculating angles around a point. • Calculating lengths and angles in

				• Parallel and perpendicular. • Recognise and describe 2D shapes. • Recognise and describe 3D shapes. • Make 3D shapes	-Complete a simple symmetric figure with respect to a specific line of symmetry **Small Steps** • Identify angles. • Compare and order angles. • Triangles. • Quadrilaterals. • Lines of symmetry. • Complete a symmetric figure.	-Identify 3-D shapes, including cubes and other cuboids, from 2-D representations. -Know angles and measured in degrees: estimate and compare acute, obtuse and reflex angles. -Draw given angles, and measure them in degrees. -Identify: *Angles at a point and one whole turn (total 360°) *Angles at a point on a straight line and ½ a turn (total 180°) **Small Steps** • -Other multiples of 90° • Measuring angles in degrees. • Measuring with a protractor (1). • Measuring with a protractor (2). • Drawing lines and angles accurately. • Calculating angles on a straight line. • Calculating angles around a point. • Calculating lengths and angles in shapes. • Regular and irregular polygons. • Reasoning about 3D shapes.	shapes. • Regular and irregular polygons. • Reasoning about 3D shapes. **New learning** Draw 2-D shapes using even dimensions and angles. -Compare and classify geometric shapes based on their properties and sizes. -Illustrate and name parts or circles, including radius, diameter and circumference and know that the diameter is twice the radius. -Recognise, describe and build simple 3-D shapes, including making nets. -Find unknown angles in any triangles, quadrilaterals, and regular polygons. -Recognise angles where they meet a point, are on a straight line, or are vertically opposite, and find missing angles. **Small Steps** • Measure with a protractor. • Introduce angles. • Calculate angles. • Vertically opposite angles. • Angles in a triangle. • Angles in a triangle – special cases. • Angles in a triangle – missing angles. • Angles in special quadrilaterals.

							• Angles in regular polygons. • Draw shapes accurately. • Nets of 3D shapes.
Geometry: Position and direction	•	**Key Vocabulary** position over, under, underneath above, below top, bottom, side on, in outside, inside around in front, behind front, back beside, next to opposite apart between middle, edge centre corner direction journey 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, quarter turn, three-quarter turn **New learning** Describe position, direction and movement, including whole, half, quarter and three-quarter turns. **Small Steps** • Describe turns. • Describe Position (1). Describe Position (2).	**Revise Key Vocabulary** position over, under, underneath above, below top, bottom, side on, in outside, inside around in front, behind front, back beside, next to opposite apart between middle, edge centre corner direction journey 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, quarter turn, three-quarter turn **New Vocabulary** clockwise, anticlockwise, right angle straight line **Revision** Describe position, direction and movement, including whole, half, quarter and three-quarter turns. **Small Steps** • Describe turns. • Describe Position (1). • Describe Position (2). **New learning** Order and arrange combinations of mathematical objects in patterns and sequences. Use mathematical vocabulary to describe position and 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	**Revise Key Vocabulary** position over, under, underneath above, below top, bottom, side on, in outside, inside around in front, behind front, back beside, next to opposite apart between middle, edge centre corner direction journey 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, quarter turn, three-quarter turn, clockwise, anticlockwise, right angle straight line **Revision** Order and arrange combinations of mathematical objects in patterns and sequences. Use mathematical vocabulary to describe position and 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) **Small Steps** • Describing movement. • Describing turns. • Describing movement and turns. • Making patterns with shapes.	**Revise Key Vocabulary** position over, under, underneath above, below top, bottom, side on, in outside, inside around in front, behind front, back beside, next to opposite apart between middle, edge centre corner direction journey 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, quarter turn, three-quarter turn, clockwise, anticlockwise, right angle straight line **New Vocabulary** horizontal, vertical, diagonal, translate, translation, acute angle, obtuse angle, reflection, set square angle, measurer, compass **Revision** Order and arrange combinations of mathematical objects in patterns and sequences. Use mathematical vocabulary to describe position and 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) **Small Steps** • Describing movement. • Describing turns. • Describing movement and turns. • Making patterns with	**Revise Key Vocabulary** position over, under, underneath above, below top, bottom, side on, in outside, inside around in front, behind front, back beside, next to opposite apart between middle, edge centre corner direction journey 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, quarter turn, three-quarter turn, clockwise, anticlockwise, right angle straight line, horizontal, vertical, diagonal, translate, translation, acute angle, obtuse angle, reflection, set square angle, measurer, compass **New Vocabulary** Coordinate, protractor **Revision** 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. **Small Steps** • Describe position. • Draw on a grid. • Move on a grid. • Describe a movement on a grid.	**Revise Key Vocabulary** position over, under, underneath above, below top, bottom, side on, in outside, inside around in front, behind front, back beside, next to opposite apart between middle, edge centre corner direction journey 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, quarter turn, three-quarter turn, clockwise, anticlockwise, right angle straight line, horizontal, vertical, diagonal, translate, translation, acute angle, obtuse angle, reflection, set square angle, measurer, compass, Coordinate, protractor **Revision** 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. **Small Steps** • Position in the first quadrant. • Reflection. • Reflection with coordinates. • Translation.

			and three-quarter turns (clockwise and anti clockwise) **Small Steps** • Describing movement. • Describing turns. • Describing movement and turns. • Making patterns with shapes.		shapes. **New learning** 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. **Small Steps** • Describe position. • Draw on a grid. • Move on a grid. Describe a movement on a grid.	**New learning** 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. **Small Steps** • Position in the first quadrant. • Reflection. • Reflection with coordinates. • Translation. Translation with coordinates.	• Translation with coordinates. **New learning** -Describe positions on the full coordinate grid (all four quadrants) -Draw and translate simple shapes on the coordinate plane, and reflect them in the axes. **Small Steps** • Coordinates in the first quadrant. • Coordinate in four quadrants. • Translations. • Reflections.
Measurement (Mass, capacity, length)		**Key Vocabulary** **MEASUREMENT** Measure, measurement, size, compare, guess, estimate, enough, not enough, too much, too little, too many, too few, nearly, close to, about the same as, roughly, just over, just under **Mass** kilogram, half kilogram weigh, weighs, balances heavy, light heavier than, lighter than heaviest, lightest scales **Capacity and volume** litre, half litre capacity volume full empty more than less than half full quarter full holds container **Length** 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 **New Learning** **Measurement: weight and volume**	**Revise Key Vocabulary** **MEASUREMENT** Measure, measurement, size, compare, guess, estimate, enough, not enough, too much, too little, too many, too few, nearly, close to, about the same as, roughly, just over, just under **Mass** kilogram, half kilogram weigh, weighs, balances heavy, light heavier than, lighter than heaviest, lightest scales **Capacity and volume** litre, half litre capacity volume full empty more than less than half full quarter full holds container **Length** 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	**Revise Key Vocabulary** **MEASUREMENT** Measure, measurement, size, compare, guess, estimate, enough, not enough, too much, too little, too many, too few, nearly, close to, about the same as, roughly, just over, just under **Mass** kilogram, half kilogram weigh, weighs, balances heavy, light heavier than, lighter than heaviest, lightest scales, gram **Capacity and volume** litre, half litre capacity volume full empty more than less than half full quarter full holds container, Millilitre, contains **Length** 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,	**Revise Key Vocabulary** **MEASUREMENT** Measure, measurement, size, compare, guess, estimate, enough, not enough, too much, too little, too many, too few, nearly, close to, about the same as, roughly, just over, just under **Mass** kilogram, half kilogram weigh, weighs, balances heavy, light heavier than, lighter than heaviest, lightest scales, gram **Capacity and volume** litre, half litre capacity volume full empty more than less than half full quarter full holds container, Millilitre, contains **Length**	**Revise Key Vocabulary** **MEASUREMENT** Measure, measurement, size, compare, guess, estimate, enough, not enough, too much, too little, too many, too few, nearly, close to, about the same as, roughly, just over, just under, unit, standard unit metric unit measuring scale **Mass** kilogram, half kilogram weigh, weighs, balances heavy, light heavier than, lighter than heaviest, lightest scales, gram **Capacity and volume** litre, half litre capacity volume full empty more than less than half full quarter full holds container, Millilitre, contains **Length**	**Revise Key Vocabulary** **MEASUREMENT** Measure, measurement, size, compare, guess, estimate, enough, not enough, too much, too little, too many, too few, nearly, close to, about the same as, roughly, just over, just under, unit, standard unit metric unit measuring scale, imperial unit **Mass** kilogram, half kilogram weigh, weighs, balances heavy, light heavier than, lighter than heaviest, lightest scales, gram, mass: pound, ounce **Capacity and volume** litre, half litre capacity volume full empty more than less than half full quarter full holds container, Millilitre,

		-Compare, describe and solve practical problems for: *lengths and heights [for example, long/short, longer/shorter, tall/short, double/half] *mass/weight [for example, heavy/light, heavier than, lighter than] *capacity and volume [for example, full/empty, more than, less than, half, half full, quarter] *time [for example, quicker, slower, earlier, later] -Measure and begin to record the following: *lengths and heights *mass/weight *capacity and volume *time (hours, minutes, seconds) **Measurement: Length and Height** Measure and begin to record lengths and heights. Compare, describe and solve practical problems for: lengths and heights (for example, long/short, longer/shorter, tall/short, double/half). **Small Steps** **Mass and Capacity** • Introduce weight and mass. • Measure mass. • Compare mass. • Introduce capacity. • Measure capacity. • Compare capacity. **Measurement: Length and Height** • Compare lengths and heights. • Measure length (1). • Measure length (2).	**New Vocabulary** **Weight** gram **Capacity and volume** Millilitre, contains **Length** Cm, m **Revision** **Measurement: weight and volume** -Compare, describe and solve practical problems for: *lengths and heights [for example, long/short, longer/shorter, tall/short, double/half] *mass/weight [for example, heavy/light, heavier than, lighter than] *capacity and volume [for example, full/empty, more than, less than, half, half full, quarter] *time [for example, quicker, slower, earlier, later] -Measure and begin to record the following: *lengths and heights *mass/weight *capacity and volume **Measurement: Length and Height** Measure and begin to record lengths and heights. Compare, describe and solve practical problems for: lengths and heights (for example, long/short, longer/shorter, tall/short, double/half). **Small Steps**	so on longest, shortest, tallest, highest … and so on far, near, close ruler metre stick, cm, m **New Vocabulary** **Length** millimetre, kilometre, distance apart … between … to … from perimeter **Revision** **Mass and Capacity** • Choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g)); 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 =. **Measurement: Length and Height** • 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 =. **Small Steps** **Mass and Capacity**	close ruler metre stick, cm, m, millimetre, kilometre, distance apart … between … to … from perimeter **New Vocabulary** **Measurement** unit, standard unit metric unit measuring scale **Length** area, covers square centimetre (cm2) **Revision** **Measurement: length and Perimeter** Measure the perimeter of simple 2-D shapes. Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml). **Mass and Capacity** Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml). **Small Steps** **Measurement: length and Perimeter** • Measure length. • Equivalent lengths – m & cm. • Equivalent lengths – mm & cm. • Compare lengths. • Add lengths. • Subtraction lengths. • Measure perimeter. • Calculate perimeter **Mass and Capacity** • Measure mass (1). • Measure mass (2). • Compare mass. • Add and subtract mass. • Measure capacity (1). • Measure capacity (2). • Compare capacity.	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, cm, m, millimetre, kilometre, distance apart … between … to … from perimeter, area, covers square centimetre (cm2) **New Vocabulary** **Measurement** imperial unit **Length** mile , yard, foot, feet, inch, inches square metre (m2), square millimetre (mm2 **Weight** mass: pound, ounce **Capacity and volume** pint, gallon, centilitre **Revision** **Measurement: length and Perimeter** -Convert between different units of measure [for example, kilometre to metre; hour to minute] -Estimate, compare and calculate different measures. -Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres. -Find the area of rectilinear shapes by counting squares. **Measurement: Area** -Convert between different units of measure [for example, kilometre to metre; hour to minute] -Estimate, compare and calculate different measures. -Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres. -Find the area of rectilinear shapes by counting squares.	contains, pint, gallon, centilitre **Length** 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, cm, m, millimetre, kilometre, distance apart … between … to … from perimeter, area, covers square centimetre (cm2), mile, yard, foot, feet, inch, inches square metre (m2), square millimetre (mm2 **New Vocabulary** **Length** Circumference, radius and diameter **Capacity and volume cubic** Cubic centimetres (cm3), cubic metres (m3), cubic millimetres (mm3), cubic kilometres (km3) **Revision** **Measurement: Perimeter and area** Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres. -Calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm^2) and square metres (m^2) and estimate the area of irregular shapes. -Estimate volume [for example, using $1cm^3$ blocks to build cuboids (including cubes)] and capacity [for example, using water]

			Mass and Capacity • Introduce weight and mass. • Measure mass. • Compare mass. • Introduce capacity. • Measure capacity. • Compare capacity. **Measurement: Length and Height** • Compare lengths and heights. • Measure length (1). • Measure length (2). **New Learning** **Mass and Capacity** Choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g)); 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 =. **Measurement: Length and Height** 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 =. **Small Steps** **Mass and Capacity** • Compare mass. • Measure mass in grams.	• Compare mass. • Measure mass in grams. • Measure mass in kilograms. • Compare capacity. • Millilitres. • Litres. **Measurement: Length and Height** • Measure length (cm). • Measure length (m). • Compare lengths. • Order lengths. • Four operations with lengths. **New Learning** **Measurement: length and Perimeter** Measure the perimeter of simple 2-D shapes. Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml). **Mass and Capacity** Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml). **Small Steps** **Measurement: length and Perimeter** • Measure length. • Equivalent lengths – m & cm. • Equivalent lengths – mm & cm. • Compare lengths. • Add lengths. • Subtraction lengths. • Measure perimeter. • Calculate perimeter	• Add and subtract capacity. **New Learning** **Measurement: length and Perimeter** -Convert between different units of measure [for example, kilometre to metre; hour to minute] -Estimate, compare and calculate different measures. -Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres. -Find the area of rectilinear shapes by counting squares. **Measurement: Area** -Convert between different units of measure [for example, kilometre to metre; hour to minute] -Estimate, compare and calculate different measures. -Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres. -Find the area of rectilinear shapes by counting squares. **Small Steps** • Kilometers. • Perimeter on a grid. • Perimeter of a rectangle. • Perimeter of rectilinear shapes. • What is area? • Counting squares • Making shapes. • Comparing area.	**Small Steps** • Kilometers. • Perimeter on a grid. • Perimeter of a rectangle. • Perimeter of rectilinear shapes. • What is area? • Counting squares • Making shapes. • Comparing area. **New Learning** **Measurement: Perimeter and area** Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres. -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. -Estimate volume [for example, using 1cm³ blocks to build cuboids (including cubes)] and capacity [for example, using water] **Measurement: Converting Units** -Convert between different units of metric measure (for example, kilometre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre) -Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints. -Use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling. -Use all four operations to solve problems involving measure [for example, money] -Solve problems involving converting between units of time. **Measurement: Volume** Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres. -Calculate and compare the area of rectangles (including squares), and	**Measurement: Converting Units** -Convert between different units of metric measure (for example, kilometre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre) -Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints. -Use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling. -Use all four operations to solve problems involving measure [for example, money] -Solve problems involving converting between units of time. **Measurement: Volume** Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres. -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. -Estimate volume [for example, using 1cm³ blocks to build cuboids (including cubes)] and capacity [for example, using water] **Small Steps** • Measure perimeter. • Calculate perimeter. • Area of rectangles. • Area of

			• Measure mass in kilograms. • Compare capacity. • Millilitres. • Litres. **Measurement: Length and Height** • Measure length (cm). • Measure length (m). • Compare lengths. • Order lengths. • Four operations with lengths.	**Mass and Capacity** • Measure mass (1). • Measure mass (2). • Compare mass. • Add and subtract mass. • Measure capacity (1). • Measure capacity (2). • Compare capacity. • Add and subtract capacity.		including using standard units, square centimetres (cm^2) and square metres (m^2) and estimate the area of irregular shapes. -Estimate volume [for example, using 1cm^3 blocks to build cuboids (including cubes)] and capacity [for example, using water] **Small Steps** • Measure perimeter. • Calculate perimeter. • Area of rectangles. • Area of compound shapes. • Area of irregular shapes. • Kilograms and kilometers. • Milligrams and milliliters. • Metric units. • Imperial units. • Converting units of time. • Timetables. • What is volume? • Compare volume. • Estimate volume. • Estimate capacity.	compound shapes. • Area of irregular shapes. • Kilograms and kilometers. • Milligrams and milliliters. • Metric units. • Imperial units. • Converting units of time. • Timetables. • What is volume? • Compare volume. • Estimate volume. • Estimate capacity. **New Learning** **Measurement: Converting units** -Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate. -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. Convert between miles and kilometres. **Measurement: Perimeter, area and volume** -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 (cm^3) and cubic metres (m^3), and extending to other units [for example, mm^3 and km^3] **Small Steps** • Metric measures. • Convert metric measures. • Calculate with metric measures. • Miles and kilometers. • Imperial measures. • Shapes – same area. • Area and perimeter. • Area of a triangle (1). • Area of a triangle (2). • Area of a triangle (3). • Area of a parallelogram. • Volume – counting cubes. • Volume of a cuboid.
Measurement (time, temperature and Money)	•	**Key Vocabulary** **Time** time days of the week, Monday, Tuesday … months of the year (January, February ...) seasons: spring, summer, autumn, winter day, week, weekend, month, year birthday, holiday morning, afternoon, evening, night bedtime, dinner time, playtime today, yesterday, tomorrow before, after earlier, later next, first, last midnight date now, soon, early, late quick, quicker, quickest, quickly slow, slower, slowest, slowly old, older, oldest new, newer, newest takes longer, takes less time how long ago? how long will it be to …? how long will it take to …? how often? always, never, often, sometimes usually once, twice hour, o'clock, half past, quarter past, quarter to clock, clock face, watch, hands hour hand, minute hand hours, minutes	**Revise Key Vocabulary** **Time** time days of the week, Monday, Tuesday … months of the year (January, February ...) seasons: spring, summer, autumn, winter day, week, weekend, month, year birthday, holiday morning, afternoon, evening, night bedtime, dinner time, playtime today, yesterday, tomorrow before, after earlier, later next, first, last midnight date now, soon, early, late quick, quicker, quickest, quickly slow, slower, slowest, slowly old, older, oldest new, newer, newest takes longer, takes less time how long ago?	**Revise Key Vocabulary** **Time** time days of the week, Monday, Tuesday … months of the year (January, February ...) seasons: spring, summer, autumn, winter day, week, weekend, month, year birthday, holiday morning, afternoon, evening, night bedtime, dinner time, playtime today, yesterday, tomorrow before, after earlier, later next, first, last midnight date now, soon, early, late quick, quicker, quickest, quickly slow, slower, slowest, slowly old, older, oldest new, newer, newest takes	**Revise Key Vocabulary** **Time** time days of the week, Monday, Tuesday … months of the year (January, February ...) seasons: spring, summer, autumn, winter day, week, weekend, month, year birthday, holiday morning, afternoon, evening, night bedtime, dinner time, playtime today, yesterday, tomorrow before, after earlier, later next, first, last midnight date now, soon, early, late quick, quicker, quickest, quickly slow, slower, slowest, slowly old, older, oldest new, newer, newest takes longer, takes less time how long ago? how long will it be to …? how long will it	**Revise Key Vocabulary** **Time** time days of the week, Monday, Tuesday … months of the year (January, February ...) seasons: spring, summer, autumn, winter day, week, weekend, month, year birthday, holiday morning, afternoon, evening, night bedtime, dinner time, playtime today, yesterday, tomorrow before, after earlier, later next, first, last midnight date now, soon, early, late quick, quicker, quickest, quickly slow, slower, slowest, slowly old, older, oldest new, newer, newest takes longer, takes less time how long ago?	**Revise Key Vocabulary** **Time** time days of the week, Monday, Tuesday … months of the year (January, February ...) seasons: spring, summer, autumn, winter day, week, weekend, month, year birthday, holiday morning, afternoon, evening, night bedtime, dinner time, playtime today, yesterday, tomorrow before, after earlier, later next, first, last midnight date now, soon, early, late quick, quicker,

		Money money coin penny, pence, pound price, cost buy, sell spend, spent pay change dear, costs more cheap, costs less, cheaper costs the same as how much …? how many …? Total **New Learning** **Measurement: money** -Recognise and know the value of different denominations of coins and notes. **Measurement: time** -Sequence events in chronological order using language (for example, before and after, next, first, today, yesterday, tomorrow morning, afternoon and evening) -Recognise and use language relating to dates, including days of the week, weeks, months and years. -Tell the time to the hour and half past the hour and draw the hands on a clock face to show these times **Small Steps** • Recognising coins. • Recognising notes. • Counting in coins. • Before and after. • Dates. • Time to the hour. • Time to the half hour. • Writing time. • Comparing time.	how long will it be to …? how long will it take to …? how often? always, never, often, sometimes usually once, twice hour, o'clock, half past, quarter past, quarter to clock, clock face, watch, hands hour hand, minute hand hours, minutes **Money** money coin penny, pence, pound price, cost buy, sell spend, spent pay change dear, costs more cheap, costs less, cheaper costs the same as how much …? how many …? Total **New Vocabulary** **Temperature** temperature, degree **Time** fortnight, quarter past, quarter to 5, 10, 15 … minutes past **Money** bought, sold **Revision** **Measurement: time** -Sequence events in chronological order using language (for example, before and after, next, first, today, yesterday, tomorrow morning, afternoon and evening) -Recognise and use language relating to dates, including days of the week, weeks, months and years. -Tell the time to the hour and half past the hour and draw the hands on a clock face to show these times **Small Steps** • Recognising coins. • Recognising notes. • Counting in coins. • Before and after. • Dates. • Time to the hour.	longer, takes less time how long ago? how long will it be to …? how long will it take to …? how often? always, never, often, sometimes usually once, twice hour, o'clock, half past, quarter past, quarter to clock, clock face, watch, hands hour hand, minute hand hours, minutes, fortnight, quarter past, quarter to 5, 10, 15 … minutes past **Money** money coin penny, pence, pound price, cost buy, sell spend, spent pay change dear, costs more cheap, costs less, cheaper costs the same as how much …? how many …? Total, bought, sold **Temperature** temperature, degree **New Vocabulary** **Time** calendar, a.m., p.m. clock, clock face, watch, hands digital/analogue clock/watch, timer hour hand, minute hand hours, minutes, seconds Roman numerals 12-hour clock time, 24-hour clock time **Temperature** Centigrade **Revision** **Measurement: Money** -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. -Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change.	take to …? how often? always, never, often, sometimes usually once, twice hour, o'clock, half past, quarter past, quarter to clock, clock face, watch, hands hour hand, minute hand hours, minutes, fortnight, quarter past, quarter to 5, 10, 15 … minutes past, calendar, a.m., p.m. clock, clock face, watch, hands digital/analogue clock/watch, timer hour hand, minute hand hours, minutes, seconds Roman numerals 12-hour clock time, 24-hour clock time **Money** money coin penny, pence, pound price, cost buy, sell spend, spent pay change dear, costs more cheap, costs less, cheaper costs the same as how much …? how many …? Total, bought, sold **Temperature** temperature, degree **New Vocabulary** **Time** Leap year, millennium timetable, arrive, depart **Revision** **Measurement: money** -Add and subtract amounts of money to give change, using both £ and p in practical contexts **Time** Tell and write the time from an analogue clock, including using Roman numerals from I to XII and 12-hour and 24-hour clocks. 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	how long will it be to …? how long will it take to …? how often? always, never, often, sometimes usually once, twice hour, o'clock, half past, quarter past, quarter to clock, clock face, watch, hands hour hand, minute hand hours, minutes, fortnight, quarter past, quarter to 5, 10, 15 … minutes past, calendar, a.m., p.m. clock, clock face, watch, hands digital/analogue clock/watch, timer hour hand, minute hand hours, minutes, seconds Roman numerals 12-hour clock time, 24-hour clock time, Leap year, millennium timetable, arrive, depart **Money** money coin penny, pence, pound price, cost buy, sell spend, spent pay change dear, costs more cheap, costs less, cheaper costs the same as how much …? how many …? Total, bought, sold **Temperature** temperature, degree **Revision** **Measurement: money** -Estimate, compare and calculate different measures, including money in pounds and pence. **Measurement: Time** -Read, write and convert time between analogue and digital 12 and 24 hour clocks. -Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days. **Small Steps** • Pounds and pence. • Ordering amounts of money. • Using rounding to estimate money. • Four operations. • Hours, minutes and seconds.	quickest, quickly slow, slower, slowest, slowly old, older, oldest new, newer, newest takes longer, takes less time how long ago? how long will it be to …? how long will it take to …? how often? always, never, often, sometimes usually once, twice hour, o'clock, half past, quarter past, quarter to clock, clock face, watch, hands hour hand, minute hand hours, minutes, fortnight, quarter past, quarter to 5, 10, 15 … minutes past, calendar, a.m., p.m. clock, clock face, watch, hands digital/analogue clock/watch, timer hour hand, minute hand hours, minutes, seconds Roman numerals 12-hour clock time, 24-hour clock time, Leap year, millennium timetable, arrive, depart **Money** money coin penny, pence, pound price, cost buy, sell spend, spent pay change dear, costs more cheap, costs less, cheaper costs the same as how much …? how many …? Total, bought, sold **Temperature** temperature, degree **New vocabulary** **Time** Greenwich Mean Time, British Summer Time, International Date Line **Money** profit, loss **Revision**

			• Time to the half hour. • Writing time. • Comparing time. **£** **Measurement: Money** -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. -Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change. **Temperature** Choose and use appropriate standard units to estimate and measure temperature (°C);, thermometers and measuring vessels. **Time** • 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. • Know the number of minutes in an hour and the number of hours in a day. • Compare and sequence intervals of time. **Small steps** • Count money – pence. • Count money – pounds (notes and coins). • Count money – notes and coins. • Select money. • Make the same amount. • Compare money. • Find the total.	**Temperature** Choose and use appropriate standard units to estimate and measure temperature (°C);, thermometers and measuring vessels. **Time** • 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. • Know the number of minutes in an hour and the number of hours in a day. • Compare and sequence intervals of time. **Small steps** • Count money – pence. • Count money – pounds (notes and coins). • Count money – notes and coins. • Select money. • Make the same amount. • Compare money. • Find the total. • Find the difference. • Find change. • Two-step problems. • O'clock and half past. • Quarter past and quarter to. • Telling time to 5 minutes. • Minutes in an hour, hours in a day. • Find durations of time. • Compare durations of time. • Temperature **New Learning** **Measurement: money** -Add and subtract amounts of money to give change, using both £ and p in practical contexts **Time**	and midnight. Know the number of seconds in a minute and the number of days in each month, year and leap year. Compare durations of events [for example to calculate the time taken by particular events or tasks]. **Small steps** • Pounds and pence. • Converting pounds and pence. • Adding money. • Subtracting money. • Giving change. • Months and years. • Hours in a day. • Telling the time to 5 minutes. • Telling the time to the minute. • AM and PM. • 24 hour clock. • Finding the duration. • Comparing the duration. • Start and end times. • Measuring time in seconds. **New Learning** **Measurement: money** -Estimate, compare and calculate different measures, including money in pounds and pence. **Measurement: Time** -Read, write and convert time between analogue and digital 12 and 24 hour clocks. -Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days. **Small Steps** • Pounds and pence. • Ordering amounts of money.	• Years, months, weeks and days. • Analogue to digital – 12 hour. • Analogue to digital – 24 hour.	

			• Find the difference. • Find change. • Two-step problems. • O'clock and half past. • Quarter past and quarter to. • Telling time to 5 minutes. • Minutes in an hour, hours in a day. • Find durations of time. • Compare durations of time. • Temperature	Tell and write the time from an analogue clock, including using Roman numerals from I to XII and 12-hour and 24-hour clocks. 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. Know the number of seconds in a minute and the number of days in each month, year and leap year. Compare durations of events [for example to calculate the time taken by particular events or tasks]. **<u>Small steps</u>** • Pounds and pence. • Converting pounds and pence. • Adding money. • Subtracting money. • Giving change. • Months and years. • Hours in a day. • Telling the time to 5 minutes. • Telling the time to the minute. • AM and PM. • 24 hour clock. • Finding the duration. • Comparing the duration. • Start and end times. • Measuring time in seconds.	• Using rounding to estimate money. • Four operations. • Hours, minutes and seconds. • Years, months, weeks and days. • Analogue to digital – 12 hour. • Analogue to digital – 24 hour.		
Statistics	•		**<u>Key Vocabulary</u>** count, tally, sort, vote, graph, block graph, pictogram, present, group, set, list, table, label, title, most popular, most common	**<u>Revise Key Vocabulary</u>** count, tally, sort, vote, graph, block graph, pictogram, present, group, set, list, table, label, title, most popular, most common	**<u>Revise Key Vocabulary</u>** count, tally, sort, vote, graph, block graph, pictogram, present, group, set, list, table, label, title, most popular, most common, chart, bar chart, frequency table Carroll diagram, Venn	**<u>Revise Key Vocabulary</u>** count, tally, sort, vote, graph, block graph, pictogram, present, group, set, list, table, label, title, most popular, most common, chart, bar chart, frequency table Carroll diagram, Venn	**<u>Revise Key Vocabulary</u>** count, tally, sort, vote, graph, block graph, pictogram, present, group, set, list, table, label, title, most popular, most common,

			New Learning -Interpret and construct simple pictograms, tally charts, block diagrams and simple tables. -Ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity. -Ask and answer questions about totalling and comparing categorical data. **Small steps** • Make tally charts. • Draw pictograms (1-1). • Interpret pictograms (1-1). • Draw pictograms (2, 5 and 10). • Interpret pictograms (2, 5 and 10). • Block diagrams.	**New Vocabulary** chart, bar chart, frequency table Carroll diagram, Venn diagram axis, axes diagram least popular, least common **Revision** Interpret and construct simple pictograms, tally charts, block diagrams and simple tables. -Ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity. -Ask and answer questions about totalling and comparing categorical data. **Small steps** • Make tally charts. • Draw pictograms (1-1). • Interpret pictograms (1-1). • Draw pictograms (2, 5 and 10). • Interpret pictograms (2, 5 and 10). • Block diagrams. **New Learning** -Interpret and present data using bar charts, pictograms and tables. -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. **Small steps** • Pictogram • Bar charts. • Tables.	diagram axis, axes diagram least popular, least common **New Vocabulary** survey, questionnaire, data graph **Revision** -Interpret and present data using bar charts, pictograms and tables. -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. **Small steps** • Pictogram • Bar charts. **New Learning** Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs. -Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs. **Small steps** • Interpret charts. • Comparison, sum and • difference. • Introducing line graphs. • Line graphs.	diagram axis, axes diagram least popular, least common, survey, questionnaire, data graph **New Vocabulary** database, bar line chart line graph maximum/minimum value outcome **Revision** Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs. -Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs. **Small steps** • Interpret charts. • Comparison, sum and • difference. • Introducing line graphs. • Line graphs. **New Learning** Complete, read and interpret information in tables, including timetables -Solve comparison, sum and difference problems using information presented in a line graph **Small steps** • Read and interpret line graphs. • Draw line graphs. • Use line graphs to • solve problems. • Read and interpret • tables. • Two way tables. • Timetables.	chart, bar chart, frequency table Carroll diagram, Venn diagram axis, axes diagram least popular, least common, survey, questionnaire, data graph, database, bar line chart line graph maximum/minimum value outcome **New Vocabulary** pie chart, mean (mode, median, range as estimates for this) statistics, distribution **Revision** Complete, read and interpret information in tables, including timetables -Solve comparison, sum and difference problems using information presented in a line graph **Small steps** • Read and interpret line graphs. • Draw line graphs. • Use line graphs to • solve problems. • Read and interpret • tables. • Two way tables. • Timetables. **New Learning** -interpret and construct pie charts and line graphs and use them to solve problems. -Calculate and interpret the mean as the average. **Small steps** • Read and interpret line graphs. • Draw line graphs. • Use line graphs to solve problems. • Circles.

							• Read and interpret pie charts. • Pie charts with percentages. • Draw pie charts. • The mean.
Algebra	•						**<u>Key Vocabulary</u>** formula, formulae equation unknown variable, expression, term **<u>New learning</u>** Number: Algebra -Use simple formulae. -Generate and describe linear number sequences. -Express missing number problems algebraically. -find pairs of numbers that satisfy an equation with two unknowns. -Enumerate possibilities of combinations of two variables. **<u>Small steps</u>** Find a rule – one step. • Find a rule – two step. • Use an algebraic rule. • Substitution. • Formulae. • Word problems. • Solve simple one step equations. • Solve two step equations. • Find pairs of values. • Enumerate possibilities.