Maths Skills Knowledge and Progression Map – Burton Road Primary School 2021

	FS1	FS2	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Number and Place Value	Recite numbers past 5. Rote count to 10, and beginning to count beyond 10. Say one number name for each item in order to 5. Count up to 10 objects, saying one number name for each item and saying how many they have counted in total. Know that the last number reached when	Count objects, actions and sounds. Count beyond 10. Link the numeral with its cardinal number value. To 10, then 20. Understand the 'one more than/one less than' relationship between consecutive numbers. Say 1 more/1 less than for numbers up to 10, then 20. Explore the composition of numbers to 10. ELG Verbally count beyond 20, recognising the pattern of the counting	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 twos, five and tens. Given a number, identify one more or one less Identify and represent numbers using objects and pictorial representations including the number line, and use the	Count in steps of 2, 3 and 5 from 0 and in any number forwards or backwards. Recognise the place value of each digit in a two-digit number (tens and ones). Identify, represent and estimate numbers using different representations, including the number line Compare and order numbers from 0 up to 100; use < > = signs Read and write numbers to at least 100 in numerals and words. Use place value and number facts to solve problems	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 three-digit number (hundreds, tens, ones) Compare and order numbers up to 1000 Identify, represent and estimate numbers using different representations Read and write numbers up to 1000 in numerals and in words Solve number problems and practical	Count in multiples of 6, 7, 9, 25 and 1000 Find 1000 more or less than a given number Count backwards through zero to include negative numbers Recognise the place value of each digit in a four digit number (thousands, hundreds, tens and ones) and beginning to introduce decimal numbers including tenths and hundredths Order and compare numbers	Read, write, order and compare numbers to at least 1,000,000 and determine the value of each digit including decimal numbers up to thousandths. 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 through zero Round any	Read, write, order and compare numbers up to 10,000,000 and determine the value of each digit including decimal numbers up to thousandths Round any whole number and decimal number to a required degree of accuracy Use negative numbers in context, and calculate intervals across zero Solve number and practical problems that

	counting a small set of objects tells you how many there are (cardinal principle). Fast recognition of up to 3 objects, without having to count them individually (subsitising). Show finger numbers up to 5 + 10. Link numerals and amounts, up to 5. Experiment with their own symbols and marks as well as numerals. Compare quantities using language	system. Subitise (recognise quantities without counting) up to at least 5. Compare quantities up to 10 in different contexts, recognising when ne quantity is greater than, less than or the same as the other quantity. Have a deep understanding of numbers to 10, including the composition of each number. Place numbers 1 to 20 in order. Count out up to 10 objects from a larger amount **<u>Key Vocab</u>** **One more than, one less than**	language of : equal to, more than, less than (fewer), most, least. Read and write numbers 1 to 20 in numerals and words **<u>Key Vocab</u>** **Forwards** **Backwards** **Numerals** **Multiples of** **One more than** **One less than** **Equal to** **More than** **Less than (fewer)** **Most, least.**	**<u>Key Vocab</u>** **Forwards** **Backwards** **Digit** **Compare** **Order** **Greater than** **Less than** **Numerals**	problems involving these ideas **<u>Key Vocab</u>** **Forwards** **Backwards** **Multiples** **Digit** **Compare** **Order** **Greater than** **Less than** **Numerals** **Represent**	beyond 1000 Identify, represent and estimate numbers using different representations Round any number to the nearest 10, 100 or 1000 Solve number and practical problems that involve all of the above 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 **<u>Key Vocab</u>** **Forwards** **Backwards** **Multiples** **Digit** **Compare**	number up to 1,000,000 to the nearest 10, 100, 1000, 10,000 and 100,000 and introduce rounding decimal numbers to the nearest whole number Solve number problems and practical problems that involve all of the above Read Roman numerals to 1000 (M) and recognise years written in Roman numerals. **<u>Key Vocab</u>** **Compare** **Order** **Value** **Decimal** **Represent**	involve all of the above **<u>Key Vocab</u>** **Compare** **Order** **Value** **Decimal** **Represent** **Tenth** **Hundredth** **Thousandth** **Forwards** **Backwards** **Negative** **Minus** **Below zero** **Round** **Closest**

	'more/fewer than'. Solve real world mathematical problems with numbers up to 5. Count out up to 5 objects from a larger amount. **<u>Key Vocab</u>** **Count** **First** **Last** **More** **Fewer** **Subitise** **Compare** **Add** **Altogether**	**Order** **Subitise** **Smaller than** **Larger than** **Greater than** **Less than**				**Order** **Greater than** **Less than** **Numerals** **Represent** **Negative** **Minus** **Below zero** **Value** **Numeral** **Roman** **Numeral** **Round** **Closest** **Multiple of ten** **Multiple of** **Hundred**	**Tenth** **Hundredth** **Thousandth** **Forwards** **Backwards** **Power of 10** **Negative** **Minus** **Below zero** **Round** **Closest** **Roman** **Numeral**	

	FS1	FS2	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Addition and Subtraction	Sings number rhymes and songs involving basic addition and subtraction, recognising if the total amount gets smaller or larger. (+) Finds the total number of items in two groups by counting all of them. **<u>Key Vocab</u>** **Total** **Add** **Altogether** **Groups** **Subtract** **Take Away** **Count Forwards**	Automatically recall number bonds for numbers 0-5 and some to 10. ELG Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts. Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed evenly. Using quantities and objects, add and	Read, write and interpret mathematical statements involving addition, subtraction and equal 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	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 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: - a two-digit number and ones -two-digit number and tens -	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 (column methods) Estimate the answers to a calculation and use inverse operations to check answers. Solve problems, including missing number	Add and subtract numbers with up to four digits using the written formal methods (column methods) where appropriate Estimate and use inverse operations to check answers to calculations Solve addition and subtraction twostep problems in contexts, deciding which operations and methods to use and why. **<u>Key Vocab</u>** **Total** **Add** **Altogether** **Groups**	Add and subtract whole numbers with more than four digits, including using formal written methods (column methods) 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	Perform mental calculations, including with mixed operations and large numbers Pupils explore the use of brackets in calculations Use their knowledge of the order of operations to carry out calculations involving the four operations (BODMAS) Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why Solve problems

	Count **Backwards** **More than** **Less than** **Smaller** **Larger**	subtract two single digit numbers and count on or count back. Record simple addition and subtraction calculations using the formal written method – simple number sentence. **<u>Key Vocab</u>** **Total** **Add** **Altogether** **Groups** **Subtract** **Take Away** **Count Forwards** **Count Backwards** **More than** **Less than** **Smaller** **Larger** **Double** **Even** **Odd** **Count On** **Count Back**	problems Such as 7= ? – 9 **<u>Key Vocab</u>** **Total** **Add** **Altogether** **Groups** **Subtract** **Take Away** **Count** **Forwards** **Count** **Backwards** **More than** **Less than** **Smaller** **Larger** **Double** **Even** **Odd** **Equals** **Addition** **Subtraction**	two two-digit numbers -adding three one digit numbers 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 missing number problems **<u>Key Vocab</u>** **Total** **Add** **Altogether** **Groups** **Subtract** **Take Away** **Count Forwards** **Count Backwards** **More than** **Less than** **Smaller**	problems, using number facts, place value, and more complex addition and subtraction **<u>Key Vocab</u>** **Total** **Add** **Altogether** **Groups** **Subtract** **Take Away** **Minus** **Count Forwards** **Count** **Backwards** **More than** **Less than** **Smaller** **Larger** **Double** **Equals** **Addition** **Subtraction** **Missing Numbers** **Two digit** **One digit** **Addition any order (Commutative)**	**Subtract** **Take Away** **Minus** **Count** **Forwards** **Count** **Backwards** **More than** **Less than** **Smaller** **Larger** **Double** **Equals** **Addition** **Subtraction** **Missing** **Numbers** **Two digit** **One digit** **Addition any order (Commutative)** **Inverse** **Check calculations** **Three digit numbers** **Four Digit Numbers** **Written Methods** **Estimate** **Sum of**	methods to use and why **<u>Key Vocab</u>** **Total** **Add** **Altogether** **Groups** **Subtract** **Take Away** **Minus** **Count** **Forwards** **Count** **Backwards** **More than** **Less than** **Smaller** **Larger** **Double** **Equals** **Addition** **Subtraction** **Missing** **Numbers** **Two digit** **One digit** **Addition any order (Commutative)** **Inverse** **Check calculations**	involving addition and subtraction, use estimation to check answers to calculations and determine in the context of a problem, an appropriate degree of accuracy. **<u>Key Vocab</u>** **Total** **Add** **Altogether** **Groups** **Subtract** **Take Away** **Minus** **Count** **Forwards** **Count** **Backwards** **More than** **Less than** **Smaller** **Larger** **Double** **Equals** **Addition** **Subtraction**

		Number Sentence	**Missing Numbers**	**Larger** **Double** **Equals** **Addition** **Subtraction** **Missing Numbers** **Two digit** **One digit** **Addition any order (Commutative)** **Inverse** **Check calculations** .	**Inverse** **Check calculations** **Three digit numbers** **Written Methods**		**Three digit numbers** **Four Digit Numbers** **Written Methods** **Estimate** **Sum of** **Rounding to check** **Approximate**	**Missing Numbers** **Two digit** **One digit** **Addition any order (Commutative)** **Inverse** **Check calculations** **Three digit numbers** **Four Digit Numbers** **Written Methods** **Estimate** **Sum of** **Rounding to check** **Approximate** **Brackets** **Bodmas**

	FS1	FS2	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Multiplication and Division	Begin to make groups and recognise how many in a group. Equal groups. **<u>Key Vocab</u>** Groups Count How many Equal	Solve problems including doubling, halving and sharing. ELG Explore and represent patterns within numbers up to 10, including evens and odds, double and half facts and how quantities can be distributed evenly. Be familiar with counting in 2's, 5's & 10's. **<u>Key Vocab</u>** Groups Count How many Equal Double Half Share Even Odd	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 **<u>Key Vocab</u>** Groups Count How many Equal Double Half Share Even Odd Array Multiplication Division	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 and division symbols and equals sign. Show that multiplication of two numbers can be done in any order (Commutative) and division of one number by another cannot Solve problems involving multiplication and division, using	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	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 commutativity in mental calculations Multiply two-digit and three-digit number by a one digit number using a formal written layout.	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 (nonprime) numbers. Establish whether a number up to 100 is prime and recall prime numbers up to 19 Multiply numbers up to four-digits by one or two digit numbers using a formal written method	Multiply multi digit numbers up to four-digits by two-digit whole number using the formal written method (including decimals) Divide numbers up to four-digits by a two-digit whole number using the formal written method of long division, and interpret remainders, decimals, fractions and rounding to the nearest whole number when appropriate for the context Perform mental

				materials, arrays, repeated addition, mental methods and multiplication and division facts, including problems in contexts. **<u>Key Vocab</u>** Groups Count How many Equal Double Half Share Even Odd Array Multiplication Division Equals Symbol Repeated Addition	positive integer scaling problems and correspondence problems in which n objects are connected to m objects. **<u>Key Vocab</u>** Groups Count How many Equal Double Half Share Even Odd Array Multiplication Division Equals Symbol Repeated Addition Positive Integer Scaling	Solve problems involving multiplying and adding, including using the distributive law to multiply two-digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects Introduce written methods for division and using remainders when and where appropriate. **<u>Key Vocab</u>** Groups Count How many Equal	(column method) including long multiplication for two-digit numbers Multiply and divide numbers mentally drawing upon known facts Divide numbers up to four-digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context including converting remainders to decimals when necessary Multiply and divide whole numbers and whose involving	calculations, including mixed operations and large numbers Identify common factors, common multiples and prime numbers Use their knowledge of the order of the operations (BODMAS) to carry out calculations including the four operations Solve addition and subtraction multi-step problems in contexts, deciding which operations to use and why Solve problems involving addition,

						Double Half Share Even Odd Array Multiplication Division Equals Symbol Repeated Addition Positive Integer Scaling Factors Multiples Remainders Formal Written Methods	decimals by 10, 100 and 1000. Recognise and use square numbers and cube numbers and their notations 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.	subtraction, multiplication and division Use estimation to check answers and calculations and determine, in the context of a problem using an appropriate degree of accuracy. **<u>Key Vocab</u>** Groups Count How many Equal Double Half Share Even Odd Array Multiplication Division Equals Symbol Repeated Addition Positive Integer Scaling

							Key Vocab Groups Count How many Equal Double Half Share Even Odd Array Multiplication Division Equals Symbol Repeated Addition Positive Integer Scaling Factors Multiples Formal Written Methods Factor pairs Common factors Prime Numbers Prime Factors Composite numbers Column Method Remainders	Factors Multiples Formal Written Methods Factor pairs Common factors Prime Numbers Prime Factors Composite numbers Column Method Remainders as decimals Formal Written Method for short division Square Numbers Cube numbers Scaling by simple fractions Multi digit numbers Long division Remainders as decimals, fractions and rounding

							Remainders as decimals Formal Written Method for short division Square Numbers Cube numbers Scaling by simple fractions	BODMAS
	FS1	**FS2**	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**
Fractions	Begin to make parts. Creative play/play dough – can you cut it in half? Can you share it with a friend?	Begin to make equal parts. Creative play/play dough – can you cut it in half? Can you share it with a friend?	Recognise, find and name a 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 **<u>Key Vocab</u>** Half Quarter Equal Parts	Recognise, find, name and write fractions third, quarter, two quarters and 3 quarters of a length, shape, set of objects or quantity Write simple fractions ½ of 6 = 3 Recognise the equivalence of 2/4 and ½ **<u>Key Vocab</u>** Half Quarter Equal Parts	Count up and down in tenths and recognise that tenths arise from dividing and object into ten equal parts and in dividing one digit numbers in quantities of ten Recognise, find and write fractions of a discrete set of objects: unit fractions and non unit fractions with	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 hundred and dividing tenths by ten. Solve problems involving	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	Use common factors to simplify fractions; use common multiples to express fractions in the same denomination. Compare and order fractions, including fractions greater than 1 Add and subtract fractions with

			Shape Amount Quantity Unit Fractions	Shape Amount Quantity Unit Fractions Third Two Quarters Three Quarters Equivalent	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 (5/7+ 1/7 = 6/7) Compare and order unit fractions, and fractions with the same denominators Solve problems that involve all of the above.	increasingly harder fractions to calculate 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 the tenths or hundredths Recognise and write decimal equivalents to ¼ ½ and ¾ Find the effect of dividing a one or two -digit number by 10 and the 100, identifying the value of the digits in the answer as ones,	and improper fractions and convert from one form to the other and write mathematical statements 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	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. Identify the value of each digit in numbers given to three decimal places and multiply and divide

					Key Vocab Half Quarter Equal Parts Shape Amount Quantity Unit Fractions Third Two Quarters Three Quarters Equivalent Tenths Denominator Numerator Compare Order Greater than Less than	tenths and hundredths Round decimals with one decimal place to the nearest whole number Compare numbers with the same number of decimal places up to two decimal places Solve simple measure and money problems involving fractions and decimals to two decimal places. **Key Vocab** Equal Parts Shape Amount Quantity Unit Fractions Third Two Quarters Three Quarters Equivalent	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 and compare numbers with up. to three decimal places Solve problems involving numbers up to three decimal places Recognise percent symbol and understand that per cent relates to numbers of parts of a hundred and write percentages as a fraction with a	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. Recall and use equivalences between simple fractions, decimals and percentages

						Tenths Denominator Numerator Compare Order Greater than Less than Common Equivalent Fractions Hundredths Decimal Equivalents Two Decimal Places Round	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 with a denominator of a multiple of 10 or 25. **<u>Key Vocab</u>** Equal Parts Shape Amount Quantity Unit Fractions Third Two Quarters Three Quarters Equivalent Tenths Denominator Numerator Compare Order Greater than Less than Common Equivalent Fractions	including in different contexts. **<u>Key Vocab</u>** Equal Parts Shape Amount Quantity Unit Fractions Third Two Quarters Three Quarters Equivalent Tenths Denominator Numerator Compare Order Greater than Less than Common Equivalent Fractions Hundredths Decimal Equivalents Two Decimal Places Mixed Number Fraction

							Hundredths Decimal Equivalents Two Decimal Places Mixed Number Fraction Improper fraction Thousandths Round Three Decimal Places Per Cent Percentages Percentage and Decimal Equivalents Multiple	Improper fraction Thousandths Round Three Decimal Places Per Cent Percentages Percentage and Decimal Equivalents Multiple Simplify Simplest Form Decimal Fraction Equivalents Value Digit
	FS1	**FS2**	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**
Measurement	Make comparisons between objects relating to size, length, weight and capacity. Begin to describe a sequence of events, real	Compare length, weight and capacity. Begin to tell the time to the hour. Begin to recognise the value of different denominations of coins and notes.	Compare, describe and solve practical problems for: - lengths and heights (long/short, longer/shorter, tall/short, double/half) - Mass/weight (heavy/light,	Choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g);temperature (degrees Celsius); capacity(l/ml) to the nearest	Measure, compare, add and subtract; lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml) Measure the perimeter of simple 2-d shapes.	Convert between different units of measure (km to m, hour to minute) Measure and calculate the perimeter of a rectilinear figure (including	Convert between different units of metric measure (km and m, CM and m, Cm and mm, g and kg, l and ml) Understand and use approximate equivalences	Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate Use, read,

	or fictional, using words, such as 'first', 'then…' Beginning to use every day language related to money and time. **<u>Key Vocab</u>** Size Length Weight Capacity First Then	**<u>Key Vocab</u>** Size Length Weight Capacity First Then O'Clock Hour Name different coins correctly.	heavier/lighter) -Capacity and volume (full/empty, more than, less than, half, half full, quarter) - Time (quicker, slower, earlier, later) Measure and begin to record the following: - lengths and heights - mass/weight - capacity and volume -time (hours, minutes, seconds) Recognise and know the value of different denominations of coins and notes Sequence events in chronological order using language (before and after, next,	appropriate unit using rulers, scales, thermometers and measuring vessels Compare and order lengths, mass, volume/capacity and record the results using < > = 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	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 1 to 11, 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	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-hour and 24-hour clocks. Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.	between metric units and common imperial units such as inches, pints and pounds Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres Calculate and compare the area of rectangles (including squares) using standard units : square centimetres, square metres and estimate the areas of irregular shapes Estimate volume (using 1cm blocks to build cuboids	write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit of measure and vice versa using decimal notation to up to three 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

			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. **Key Vocab** Size Length Weight lengths and heights (long/short, longer/shorter, tall/short, double/half) -	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. **Key Vocab** Size Length m/cm Weight kg/g Mass/weight Capacity heavier/lighter) - Capacity and volume l/ml Thermometer Degree Celsius Measuring Jug/vessel Scale Time Hours Minutes Seconds O'Clock Hour Half Past	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) **Key Vocab** Size Length m/cm/mm 2D Shapes Perimeter Weight and Mass g/kg Capacity and volume l/ml Thermometer Degree Celsius Measuring Jug/vessel Scale	**Key Vocab** Size Length m/cm/mm Convert 2D Shapes Perimeter Area Rectilinear Estimate Calculate Compare Weight and Mass g/kg Capacity and volume l/ml Thermometer Degree Celsius Measuring Jug/vessel Scale Time Analogue Clock Digital Roman Numerals 12 hour clock 24 hour clock AM/PM Minutes Past Seconds in minutes	and capacity using water) Solve problems involving converting between units of time (12-hour and 24-hour) Time investigating time tables. Use all four operations to solve problems involving measure (length, mass, capacity, weight, volume and money) using decimal notation including scaling. **Key Vocab** Size Length m/cm/mm Convert Metric Imperial Equivalences	volume of shapes Calculate the area of parallelograms and triangles Calculate, estimate and compare volume of cubes and cuboids using standard units, including cm cubed and extending to other units of measure (mm or km) **Key Vocab** Size Length m/cm/mm Convert Miles to KM Metric Imperial Equivalences Inches

			Mass/weight (heavy/light, Capacity heavier/lighter) -Capacity and volume (full/empty, more than, less than, half, half full, quarter) - Time (quicker, slower, earlier, later) Hours Minutes Seconds First Then O'Clock Hour Half Past Chronological order (before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening) Days of week Months of Year	Quarter Past Quarter To Minutes in hour Hours in day Days of week Months of Year Compare Order Greater than Less than Pounds Pence Amount Change	Time Analogue Clock Roman Numerals 12 hour clock 24 hour clock AM/PM Minutes Past Seconds in minutes Days in a month Leap year Duration Hours Minutes Seconds O'Clock Hour Half Past Quarter Past Quarter To Minutes in hour Hours in day Days of week Months of Year Compare Order Greater than Less than Pounds Pence Amount Change	Days in a month Leap year Duration Hours Minutes Seconds O'Clock Hour Half Past Quarter Past Quarter To Minutes in hour Hours in day Days of week Months of Year Compare Order Greater than Less than Pounds Pence Amount Change	Inches Pints Pounds 2D Shapes Perimeter Area Composite Rectilinear Shapes Square CM Square M Irregular Shapes Estimate Calculate Compare Weight and Mass g/kg Capacity and volume l/ml Thermometer Degree Celsius Measuring Jug/vessel Scale Time Analogue Clock Digital Roman Numerals 12 hour clock 24 hour clock AM/PM	Pints Pounds 2D Shapes Perimeter Area Formulae for area and volume Parallelograms Triangles Volume of cubes and cuboids Composite Rectilinear Shapes Square CM Square M Irregular Shapes Estimate Calculate Compare Weight and Mass g/kg Capacity and volume l/ml Thermometer Degree Celsius Measuring Jug/vessel Scale Time

			Name different coins correctly.				Minutes Past Seconds in minutes Days in a month Leap year Duration Hours Minutes Seconds O'Clock Hour Half Past Quarter Past Quarter To Minutes in hour Hours in day Days of week Months of Year Compare Order Greater than Less than Pounds Pence Amount Change Decimal Notation Scaling	Analogue Clock Digital Roman Numerals 12 hour clock 24 hour clock AM/PM Minutes Past Seconds in minutes Days in a month Leap year Duration Hours Minutes Seconds O'Clock Hour Half Past Quarter Past Quarter To Minutes in hour Hours in day Days of week Months of Year Compare Order Greater than Less than Pounds Pence

								Amount Change Decimal Notation Scaling

	FS1	**FS2**	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**
Geometry – Position and Direction	Understand position through words alone e.g. "The bag is under the table," with no pointing. Describe a familiar route. Discuss routes and locations, using words like 'in front of' and 'behind'. Talk about & identify patterns around them. Extend and create ABAB patterns. Notice & correct an error in a repeating pattern. **Key Vocab**	Draw information from a simple map. Use everyday language to talk about position. Continue, copy & create repeating patterns. **Key Vocab** Begin to use prepositions such as 'under', 'over', 'across'.	Describe position, direction and movement, including whole, half, quarter and three-quarter turns. **Key Vocab** Full Turn Whole Turn Half Turn Quarter Turn Three Quarter Turn	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 anticlockwise) **Key Vocab** Full Turn Whole Turn Half Turn Quarter Turn Three Quarter Turn Rotate	Revise rotation as a turn – half turn, quarter turn, three quarter turn. Begin to recognise turns as turning through a right angle. **Key Vocab** Full Turn Whole Turn Half Turn Quarter Turn Three Quarter Turn Rotate Right Angle	Describe positions on a 2-D grid as co-ordinates 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. **Key Vocab** Two Dimensions Position First Quadrant Translation Left Right Up Down Polygon	Identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed. **Key Vocab** Two Dimensions Position First Quadrant Second Quadrant All four quadrants. Translation Left Right Up Down Polygon X Axis Y Axis	Revise coordinates, reflection, rotation and translation. **Key Vocab** Two Dimensions Position First Quadrant Second Quadrant All four quadrants. Translation Left Right Up Down Polygon X Axis Y Axis

	Begin to use prepositions such as 'under', 'over', 'across'.			Right Angle				
	FS1	**FS2**	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**
Geometry – Properties of Shape	Talk about and explore 2D and 3D shapes using informal and mathematical language: sides, corners, straight, flat, round. Select shapes appropriately e.g. triangle for roof. Combine shapes to make new ones. Selects a particular named shape (triangle, circle, rectangle,	Select, rotate & manipulate shapes in order to develop spatial reasoning skills. Compose and decompose shapes so that children can recognise a shape can have other shapes within it, just as numbers can. Use mathematical language to describe the 4 basic shapes (triangle, circle, rectangle & square) & begin to name and describe some	Recognise and name common and 2-D and 3-D shapes including: - 2-D shapes (rectangles including squares, circles and triangles) - 3-D shapes (cuboids including cubes, pyramids and spheres) **<u>Key Vocab</u>** sides, edges, corners, straight, flat, round. Triangle Circle	Identify and describe the properties of 2-D shapes, including the number of sides and 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 (a circle on a cylinder, and triangle on a pyramid) Compare and sort common 2-D and 3- D	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 turns Identify right angles, recognise that two right angles make a half turn, three make three-	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 two right angles by size Identify lines of symmetry in 2-D shapes presented in different orientations Complete a	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 Draw given angles, and measure them in degrees Identify: - angles at a point, on a straight line and ½ a turn (total 180	Draw 2-D shapes with given dimensions and angles Recognise and 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

	square). Name the 4 basic shapes (triangle, circle, rectangle, square). Recognise shapes in the environment. **Key Vocab** sides, corners, straight, flat, round. Triangle Circle Rectangle Square	simple 3D shapes. **Key Vocab** sides, edges, corners, straight, flat, round. Triangle Circle Rectangle Square Cube Cuboid	Rectangle Square Cube Cuboid Pyramid Spheres	shapes and everyday objects. **Key Vocab** sides, faces, edges, vertices, vertex, corners, straight, flat, round. Vertical line. Symmetry Triangle Circle Rectangle Square Cube Cuboid Pyramid Spheres	quarters of a turn and four 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. **Key Vocab** sides, faces, edges, vertices, vertex, corners, straight, flat, round. Vertical line. Symmetry Triangle Circle Rectangle Square Cube Cuboid Pyramid Spheres Angles Right Angles	simple symmetric figure with respect to a specific line of symmetry. **Key Vocab** sides, faces, edges, vertices, vertex, corners, straight, flat, round. Vertical line. Symmetry Triangle Circle Rectangle Square Cube Cuboid Pyramid Spheres Angles Right Angles Greater than Less than Turns – full and half etc linked to angles Vertical Horizontal Parallel Perpendicular	degrees) - Other multiples og 90 degrees 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. **Key Vocab** Angles Right Angles Greater than Less than Turns – full and half etc linked to angles Vertical Horizontal Parallel Perpendicular Acute	Illustrate and name parts of a circle, including radius, diameter and circumference and know that the diameter is twice the radius Recognise angles where they meet at a point, are on straight line, or vertically opposite and find missing angles. **Key Vocab** Angles Right Angles Greater than Less than Turns – full and half etc linked to angles Vertical Horizontal Parallel

					Greater than Less than Turns – full and half etc linked to angles Vertical Horizontal Parallel Perpendicular	Acute Obtuse Quadrilaterals	Obtuse Quadrilaterals Regular Irregular Polygons Square Rectangle Circle Triangle Kite Rhombus Parallelogram Trapezium Cube Cuboid Cylinder Cone Sphere Triangular Based Pyramid Triangular Prism Square Based Pyramid	Perpendicular Acute Obtuse Quadrilaterals Regular Irregular Polygons Square Rectangle Circle Triangle Kite Rhombus Parallelogram Trapezium Cube Cuboid Cylinder Cone Sphere Triangular Based Pyramid Triangular Prism Square Based Pyramid Nets Diameter Circumference Radius

	FS1	**FS2**	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**
Statistics				Interpret and construct simple pictograms, tally charts and 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	Interpret and present data using bar charts, pictograms and tables Solve one-step and two-step questions (how many more? How many fewer?) using information presented in scaled bar charts and	Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts, and time graphs Solve comparison sum and difference problems using	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. **<u>Key Vocab</u>** Pie Charts Line graphs Timetables Mean

				comparing categorical data. **<u>Key Vocab</u>** Pictograms Tally Charts Block Diagrams Tables Objects Compare Total Sum	pictograms and tables. **<u>Key Vocab</u>** Bar Charts Pictograms Tables Fewer Less than More than Total Compare Sum	information presented in bar charts, pictograms, tables and other graphs. **<u>Key Vocab:</u>** Bar Charts Pictograms Time graphs Line Graphs Tables Fewer Less than More than Total Compare Sum	**<u>Key Vocab:</u>** Bar Charts Time graphs Line Graphs Timetables Fewer Less than More than Total Compare Sum	Average
	FS1	**FS2**	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**
Ratio and 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

								calculations of percentages (15% of 30) 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. **Key Vocab** Integer Compare Percentage Fractions Multiples
	FS1	**FS2**	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**
Algebra			Solve one-step problems that involve addition and subtraction using concrete objects and pictorial	Missing number problems linked to addition and subtraction. Inverse. **Key Vocab** Value	Solve problems, including missing number problems, using number facts, place value, and more complex	Solve problems, including missing number problems, using number facts, place value, and more complex addition and	Solve problems, including missing number problems, using number facts, place	Use simple formulae Generate and describe linear number sequences Express missing

			representations and missing number problems Such as 7= ? – 9 **<u>Key Vocab</u>** Value Represent Missing Number	Represent Missing Number Inverse Opposite	addition and subtraction. **<u>Key Vocab</u>** Value Represent Missing Number Inverse Opposite Balanced Equation	subtraction, multiplication and division. Calculate missing digits in formal written method problems. **<u>Key Vocab</u>** Value Represent Missing Number Inverse Opposite Balanced Equation Digit	value, and more complex addition and subtraction, multiplication and division. Calculate missing digits in formal written method problems. **<u>Key Vocab</u>** Value Represent Missing Number Inverse Opposite Balanced Equation Digits	number problems algebraically Find pairs of numbers that satisfy an equation with two unknowns Enumerate possibilities of combinations of two variables. **<u>Key Vocab</u>** Value Represent Missing Number Inverse Opposite Balanced Equation Digits Formulae Linear Algebra