Skills Progression in Maths - St Mary's CE Primary School

Skills	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Number Place Value	**Counting** Have a deep understanding of numbers to 10, including the composition of each number. Subitise to 5. Verbally count to 20, recognizing the pattern of the counting system. **Comparing** Compare quantities up to 10 in different contexts, recognizing when one quantity is greater than, less than or the same as the other quantity **Identifying. Representing and Estimating Numbers**	**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, fives and tens Identify one more and one less of a given number **Comparing** Use the language of: equal to, more than, less than (fewer), most, least **Identifying. Representing and**	**Counting** Count in steps of 2, 3, and 5 from 0, and in tens from any number, forward or backward **Comparing** Compare and order numbers from 0 up to 100; use and = signs **Identifying. Representing and Estimating Numbers** Identify, represent and estimate numbers using different representations, including the number line **Reading and Writing Numbers** Read and write numbers to at	**Counting** Count from 0 in multiples of 4, 8, 50 and 100; Find 10 or 100 more or less than a given number **Comparing** Compare and order numbers up to 1000 **Identifying. Representing and Estimating Numbers** Identify, represent and estimate numbers using different representations **Reading and Writing Numbers** Read and write numbers up to 1	**Counting** Count backwards through zero to include negative numbers Count in multiples of 6, 7, 9, 25 and 1000 Find 1000 more or less than a given number **Comparing** Order and compare numbers beyond 1000 Compare numbers with the same number of decimal places up to two decimal places (Fractions NC Objective) **Identifying. Representing and**	**Counting** Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero Count forwards or backwards in steps of powers of 10 for any given number up to 1000 000 **Comparing** Read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit (Objective also shown in Reading and Writing Numbers)	**Counting** Use negative numbers in context, and calculate intervals across zero **Comparing** Read, write, order and compare numbers up to 10 000 000 and determine the value of each digit (Objective also shown in Reading and Writing Numbers) **Reading and Writing Numbers** Read, write, order and compare numbers up to 10 000 000 and determine the value of each digit (appears also in

Identify and represent numbers with objects and pictorial representations including introduction to a number line. **Reading and Writing Numbers** Practise reading and writing numbers from 1 to 10 in numerals and words. **Understanding Place Value** Have a deep understanding of numbers to 10, including the composition of each number. Verbally count beyond 20, recognizing the pattern of the counting system.	**Estimating Numbers** Identify and represent numbers using objects and pictorial representations including the number line **Reading and Writing Numbers** Read and write numbers from 1 to 20 in numerals and words. **Understanding Place Value** Recognise the place value of each digit in numbers 1-20 (tens, ones) (This is not statutory until Year 2 but as a school we have decided this step to be necessary in this year group to support conceptual understanding, fluency and	least 100 in numerals and in words **Understanding Place Value** Recognise the place value of each digit in a two-digit number- non-statutory (tens, ones)	000 in numerals and in words Tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks (Measurement NC Objective) **Understanding Place Value** Recognise the place value of each digit in a three-digit number (hundreds, tens, and ones)	**Estimating Numbers** Identify, represent and estimate numbers using different representations **Reading and Writing Numbers** 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. **Understanding Place Value** Recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones) Find the effect of dividing a one or two-digit number by 10 and 100,	**Reading and Writing Numbers** Read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit (appears also in Comparing Numbers Read Roman numerals to 1 000 (M) and recognise years written in Roman numerals. **Understanding Place Value** Read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit (appears also in Reading and Writing Numbers)	Understanding Place Value) **Understanding Place Value** Read, write, order and compare numbers up to 10 000 000 and determine the value of each digit (appears also in Reading and Writing Numbers) Identify the value of each digit to three decimal places and multiply and divide numbers by 10, 100 and 1000 where the answers are up to three decimal places (Fractions NC Objective) **Rounding** Round any whole number to a required degree of accuracy

		progression in this domain)			identifying the value of the digits in the answer as units, tenths and hundredths (Fractions NC Objective)

Rounding
Round any number to the nearest 10, 100 or 1 000

Round decimals with one decimal place to the nearest whole number (Fractions NC Objective) | Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents (Fractions NC Objective)

Rounding
Round any number up to 1 000 000 to the nearest 10, 100, 1 000, 10 000 and 100 000

Round decimals with two decimal places to the nearest whole number and to one decimal place (Fractions NC Objective) | Solve problems which require answers to be rounded to specified degrees of accuracy (Fractions NC Objective) |

Skills	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Number Addition and Subtraction	**Number Bonds** Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some numbers bonds to 10 including double facts. Begin to understand the operations of addition and subtraction and use associated vocabulary. Begin to understand mathematical symbols associated with addition and subtraction. **Mental Calculation** Subitise up to 5 Automatically recall..number bonds up to	**Number Bonds** Represent and use number bonds and related subtraction facts within 20 **Mental Calculation** Add and subtract one-digit and two digit numbers to 20, including zero Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs (appears also in Written Methods) **Written Methods** Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs (Objective	**Number Bonds** Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100 **Mental Calculation** add and subtract numbers using concrete objects, pictorial representations, and mentally, including: * a two-digit number and ones * a two-digit number and tens * two two-digit numbers adding three one digit numbers Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot	**Mental Calculation** Add and subtract numbers mentally, including: 1. a three-digit number and ones 2. a three-digit number and tens 3. a three-digit number and hundreds **Written Methods** Add and subtract numbers with up to three digits, using formal written methods of columnar	**Written Methods** Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and	**Mental Calculation** Add and subtract numbers mentally with increasingly large numbers **Written Methods** Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar	**Mental Calculation** 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

	5…and some number bonds up to 10 including double facts. **<u>Written Methods</u>** To become familiar with and understand mathematical symbols linked to addition and subtraction. To begin to represent mathematical sentences with appropriate symbols.	also shown in Mental Calculation) **<u>Inverse Operations, Estimating and Checking Answers</u>** Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems	**<u>Inverse Operations, Estimating and Checking Answers</u>** Estimate the answer to a calculation and use inverse operations to check answers	addition and subtraction **<u>Inverse Operations, Estimating and Checking Answers</u>** Estimate and use inverse operations to check answers to a calculation	subtraction where appropriate **<u>Inverse Operations, Estimating and Checking Answers</u>** Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy	addition and subtraction) **<u>Inverse Operations, Estimating and Checking Answers</u>** Use estimation to check answers to calculations and determine, in the context of a problem, levels of accuracy.	
Skills	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6

Number Multiplication and Division	Multiplication and Division Facts	Multiplication and Division Facts	Multiplication and Division Facts	Multiplication and Division Facts	Multiplication and Division Facts	Multiplication and Division Facts	
	Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally	Count in multiples of twos, fives and tens (Number: Place Value NC Objective)	Count in steps of 2, 3, and 5 from 0, and in tens from any number, forward or backward (Number: Place Value NC Objective)	Count from 0 in multiples of 4, 8, 50 and 100 (Number: Place Value NC Objective)	Count in multiples of 6, 7, 9, 25 and 1 000 (Number: Place Value NC Objective)	Count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000 (Number: Place Value NC Objective)	
	Mental Calculation Automatically recall …number bonds up to 5…and some number bonds to 10 including double facts	**Mental Calculation** Solve one-step problems involving multiplication and division, calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher (Objective also shown in Problem Solving)	Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers	Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables	**Recall multiplication and division facts for multiplication tables up to 12 × 12 (MTC point)**		
	Written Calculation Begin to represent mathematical statements with appropriate symbols		**Mental Calculation** Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot	**Mental Calculation** 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	**Mental Calculation** 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	**Mental Calculation** Multiply and divide numbers mentally drawing upon known facts	**Mental Calculation** Perform mental calculations, including with mixed operations and large numbers
					Recognise and use factor pairs and commutativity in mental	Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000	Associate a fraction with division and calculate decimal fraction equivalents (e.g. 0.375) for a simple fraction (e.g. 3 /8)
						Written Calculation Multiply numbers up to 4 digits by a one- or two-digit	

			Written Calculation Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs	(Objective also shown in Written Methods) **Written Calculation** 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 (Objective also shown in Mental Methods) **INVERSE OPERATIONS, ESTIMATING AND CHECKING ANSWERS** Estimate the answer to a calculation and	calculations (Objective also shown in in Properties of Numbers) **Written Calculation** Multiply two-digit and three-digit numbers by a one digit number using formal written layout *Divide numbers up to 3 digits by a one-digit number using the formal written method of short division including those with a remainder written as 'r' (This is not statutory until Year 5 but as a school we have decided this step to be necessary for some in this year group to support progression in this*	number using a formal written method, including long multiplication for two-digit numbers 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 **PROPERTIES OF NUMBERS: MULTIPLES, FACTORS, PRIMES, SQUARE AND CUBE NUMBERS** Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers.	(Fractions NC Objective) **Written Calculation** 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 short division where appropriate for the context 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

| | | | | use inverse operations to check answers (Addition & Subtraction NC Objective) estimate and use inverse operations to check answers to a calculation (Addition & Subtraction NC Objective) | *area through Y5 and Y6)*

PROPERTIES OF NUMBERS: MULTIPLES, FACTORS, PRIMES, SQUARE AND CUBE NUMBERS
Recognise and use factor pairs and commutativity in mental calculations (Objective also shown in Mental Calculation)

INVERSE OPERATIONS, ESTIMATING AND CHECKING ANSWERS
Estimate and use inverse operations to check answers to a calculation (Addition & Subtraction NC Objective) | **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) | rounding, as appropriate for the context

Use written division methods in cases where the answer has up to two decimal places (Fractions: using decimals NC Objective)

PROPERTIES OF NUMBERS: MULTIPLES, FACTORS, PRIMES, SQUARE AND CUBE NUMBERS
Identify common factors, common multiples and prime numbers use common factors to simplify fractions; use common multiples to express fractions in the same denomination (Fractions NC Objective) |

							Calculate, estimate and compare volume of cubes and cuboids using standard units, including centimetre cubed (cm 3) and cubic metres (m 3), and extending to other units such as mm 3 and km 3 (Measures NC Objective)

ORDER OF OPERATIONS Use their knowledge of the order of operations to carry out calculations involving the four operation

INVERSE OPERATIONS, ESTIMATING AND CHECKING ANSWERS Use estimation to |

							check answers to calculations and determine, in the context of a problem, levels of accuracy

Skills	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Number Fractions, Decimals and Percentages	**Counting in Fractional Steps** Beginning to use the term "half" and understand it means sharing into 2 equal parts	**Counting in Fractional Steps** **Recognising Fractions** 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	**Counting in Fractional Steps** *Pupils should count in fractions up to 10, starting from any number and using the 1 / 2 and 2 / 4 equivalence on the number line (Non-Statutory Guidance)* **Recognising Fractions** Recognise, find, name and write fractions 1 / 3 , 1 / 4 , 2 / 4 and 3 / 4 of a length, shape, set of objects or quantity	**Counting in Fractional Steps** Count up and down in tenths **Recognising Fractions** Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators Recognise that tenths arise from dividing an object into 10 equal parts and in dividing one – digit numbers or quantities by 10. Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators	**Counting in Fractional Steps** Count up and down in hundredths **Recognising Fractions** Recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten **Comparing Decimals** Compare numbers with the same number of decimal places up	**Recognising Fractions** Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents (Objective also shown in Equivalence) **Comparing fractions** Compare and order fractions whose denominators are all multiples of the same number **Comparing Decimals** Read, write, order and compare numbers with up to three decimal places	**Comparing fractions** Compare and order fractions, including fractions >1 **Comparing Decimals** Identify the value of each digit in numbers given to three decimal places

				Comparing fractions	to two decimal places		
				Compare and order unit fractions, and fractions with the same denominators			
					Rounding Including Decimals	**Rounding Including Decimals**	**Rounding Including Decimals**
					Round decimals with one decimal place to the nearest whole number	Round decimals with two decimal places to the nearest whole number and to one decimal place	Solve problems which require answers to be rounded to specified degrees of accuracy
			EQUIVALENCE INCLUDING DECIMALS, FRACTIONS AND PERCENTAGES	**EQUIVALENCE INCLUDING DECIMALS, FRACTIONS AND PERCENTAGES**	**EQUIVALENCE INCLUDING DECIMALS, FRACTIONS AND PERCENTAGES**	**EQUIVALENCE INCLUDING DECIMALS, FRACTIONS AND PERCENTAGES**	**EQUIVALENCE INCLUDING DECIMALS, FRACTIONS AND PERCENTAGES**
			Write simple fractions e.g. 1 / 2 of 6 = 3 and recognise the equivalence of 2 / 4 and 1 / 2 .	Recognise and show, using diagrams, equivalent fractions with small denominator	Recognise and show, using diagrams, families of common equivalent fractions Recognise and write decimal equivalents of any	Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths	Use common factors to simplify fractions; use common multiples to express fractions in the same denomination Associate a fraction with

					number of tenths or hundredths Recognise and write decimal equivalents to 1 / 4 ; 1 / 2 ; 3 / 4	Read and write decimal numbers as fractions (e.g. 0.71 = 71 / 100) Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents Recognise the per cent symbol (%) and understand that per cent relates to "number of parts per hundred", and write percentages as a fraction with denominator 100 as a decimal fraction	division and calculate decimal fraction equivalents (e.g. 0.375) for a simple fraction (e.g. 3 / 8) Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.
				Addition and Subtraction of Fractions Add and subtract fractions with the same denominator within one whole	**Addition and Subtraction of Fractions** Add and subtract fractions with the same denominator	**Addition and Subtraction of Fractions** Add and subtract fractions with the same denominator and	**Addition and Subtraction of Fractions** Add and subtract fractions with different denominators and mixed

				(e.g. 5 / 7 + 1 / 7 = 6 / 7)		multiples of the same number	numbers, using the concept of equivalent fractions
						recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number (e.g. 2 / 5 + 4 / 5 = 6 / 5 = 1 1 / 5)	
						Multiplication and Division of Fractions Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams	**Multiplication and Division of Fractions** Multiply simple pairs of proper fractions, writing the answer in its simplest form (e.g. 1 / 4 × 1 / 2 = 1 / 8) Divide proper fractions by whole numbers (e.g. 1 / 3 ÷ 2 = 1 / 6)

					Multiplication and Division of Decimals 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		**Multiplication and Division of Decimals** Multiply one-digit numbers with up to two decimal places by whole numbers Multiply and divide numbers by 10, 100 and 1000 where the answers are up to three decimal places Identify the value of each digit to three decimal places and multiply and divide numbers by 10, 100 and 1000 where the answers are up to three decimal places Associate a fraction with division and calculate decimal fraction equivalents (e.g.

| | | | | | | 0.375) for a simple fraction (e.g. 3 /8)

Use written division methods in cases where the answer has up to two decimal places |

Skills	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Number Ratio and Proportion *Ratio and Proportion objectives only appear in Year 6. However, it is vital that these objectives build upon children's prior learning in other mathematical concepts, in particular: fractions, decimals and percentages. Therefore, this document should be used in conjunction with the other progression documents in order to see where this learning is progressing from)*							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.

Skills	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Number Algebra	**Equations** Have a deep understanding of numbers to 10, including the composition of each number Automatically recall number bonds to 5 and some number bonds to 10 including double facts. Explore and represent patterns within numbers to 10, including evens and odds, double facts and how quantities can be distributed equally

Continue, copy and create repeating patterns

Identifying missing numbers | **Equations** Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = ∗ - 9 (Addition and Subtraction NC Objective)

Represent and use number bonds and related subtraction facts within 20 (Addition and Subtraction NC Objective) | **Equations** Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and missing number problems. (Addition and Subtraction NC Objective)

Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100 (Addition and Subtraction NC Objective) | **Equations** Solve problems, including **missing number** problems, using number facts, place value, and more complex addition and subtraction. (Addition and Subtraction NC Objective)

solve problems, including **missing number** problems, involving multiplication and division, including integer scaling (Multiplication & Division NC Objective) | **Formulae** Perimeter can be expressed algebraically as $2(a + b)$ where a and b are the dimensions in the same unit. (Link to Measurement NC Objective) | **Equations** Use the properties of rectangles to deduce related facts and find missing lengths and angles (Geometry: Properties of Shapes NC Objective) | **Equations** Express missing number problems algebraically

Find pairs of numbers that satisfy number sentences involving two unknowns

Enumerate all possibilities of combinations of two variables

Formulae Use simple formulae

Recognise when it is possible to use formulae for area and volume of shapes (Measurement NC Objective) |

	from number lines up to 10	**Sequences** Sequence events in chronological order using language such as: before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening (Measurement NC Objective)	**Sequences** Compare and sequence intervals of time (Measurement NC Objective) Order and arrange combinations of mathematical objects in patterns (Geometry: position and direction NC Objective)				**Sequences** Generate and describe linear number sequences

Skills	EYFS (Reception)	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Measurement *NB. THERE IS NO ELG RELATED TO SSM*	**Comparing and Estimating** Compare length, weight and capacity Use prior vocabulary and supplement with Lightest/heaviest/ Tallest/shortest/ Half full/quickest/ Slowest To compare, describe and solve practical problems for >length and heights. >weight >capacity >time To order and sequence 3 comparisons of measure. **Measuring and Calculating** Begin to use non –standard units to measure static objects. To record findings during	**Comparing and Estimating** Compare, describe and solve practical problems for: * lengths and heights [e.g. long/short, longer/shorter, tall/short, double/half] * mass/weight [e.g. heavy/light, heavier than, lighter than] * capacity and volume [e.g. full/empty, more than, less than, half, half full, quarter] * time [e.g. quicker, slower, earlier, later] Sequence events in chronological order using language [e.g. before and after, next, first, today, yesterday, tomorrow,	**Comparing and Estimating** Compare and order lengths, mass, volume/capacity and record the results using >, < and = Compare and sequence intervals of time **Measuring and Calculating** 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	**Comparing and Estimating** Compare durations of events, for example to calculate the time taken by particular events or tasks estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes, hours and o'clock; use vocabulary such as a.m./p.m., morning, afternoon, noon and midnight (Also shown in Telling the Time) **Measuring and Calculating** Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g);	**Comparing and Estimating** Estimate, compare and calculate different measures, including money in pounds and pence (Also shown in Measuring) **Measuring and Calculating** Estimate, compare and calculate different measures, including money in pounds and pence (Also shown in Comparing) Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres	**Comparing and Estimating** Calculate and compare the area of squares and rectangles including using standard units, square centimetres (cm 2) and square metres (m 2) and estimate the area of irregular shapes (Also shown in Measuring) Estimate volume (e.g. using 1 cm 3 blocks to build cubes and cuboids) and capacity (e.g. using water) **Measuring and Calculating** Use all four operations to solve problems involving measure (e.g. length, mass,	**Comparing and Estimating** Calculate, estimate and compare volume of cubes and cuboids using standard units, including centimetre cubed (cm 3) and cubic metres (m 3), and extending to other units such as mm 3 and km 3 **Measuring and Calculating** Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate (Also shown in Converting) Recognise that shapes with the same areas can

	investigations. To understand the importance of constant baseline	morning, afternoon and evening]	and measuring vessels	volume/capacity (l/ml)	Find the area of rectilinear shapes by counting squares	volume, money) using decimal notation including scaling.	have different perimeters and vice versa

Telling The Time
Sequence a familiar set of events both fictional and nonfictional

Be introduced to and understand the o'clock time on an analogue clock.

Be able to read and draw the hands on a clock face to show times.

Measuring and Calculating
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

Telling The Time
Tell the time to the hour and half past the hour and draw the hands on a clock face to show these times.

Recognise and use language relating to dates, including days of

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

Telling The Time
Tell and write the time to five minutes, including quarter past/to the hour and draw the

Measure the perimeter of simple 2-D shapes

Add and subtract amounts of money to give change, using both £ and p in practical contexts

Telling The 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, hours and o'clock; use vocabulary such

Telling The Time
Read, write and convert time between analogue and digital 12 and 24-hour clocks (Also shown in Converting)

Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days (Also shown in Converting)

Converting
Convert between different units of measure (e.g. kilometre to metre; hour to minute)

Read, write and convert time

Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres

Calculate and compare the area of squares and rectangles including using standard units, square centimetres (cm 2) and square metres (m 2) and estimate the area of irregular shapes

Recognise and use square numbers and cube numbers, and the notation for squared (2) and cubed (3)

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 [e.g. mm 3 and km 3].

Recognise when it is possible to use formulae for area and volume of shapes

Converting
Use, read, write and convert between standard units, converting measurements of

| | | the week, weeks, months and years | 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. (Objective also shown in Converting)

Converting
Know the number of minutes in an hour and the number of hours in a day. (Objective also shown in Telling the Time) | as a.m./p.m., morning, afternoon, noon and midnight (Also shown in Comparing and Estimating)

Converting
Know the number of seconds in a minute and the number of days in each month, year and leap year | between analogue and digital 12 and 24-hour clocks (Objective also shown in in Telling the Time)

Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days (Also shown in Telling the Time) | (Multiplication and Division NC Objective)
Telling The Time
Solve problems involving converting between units of time
Converting
Convert between different units of metric measure (e.g. kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre)

Solve problems involving converting between units of time

Understand and use equivalences between metric units and common imperial units ie. inches, pounds and pints | 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

Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate (Also shown in Measuring and Calculating)

Convert between miles and kilometres |

Skills	EYFS/<mark>Reception</mark>	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Geometry *<mark>There is no ELG for SSM</mark>*	**Identifying Shapes and Their Properties** Select, rotate and manipulate shapes in order to develop spatial reasoning skills Compose and decompose shapes so that children recognise a shape can have other shapes within it, just as numbers can. Recognise and name common 2d and 3d shapes and talk about properties of sides, corners, edges, faces, curved and flat **Drawing and Construction** Compose and decompose shapes so that	**Identifying Shapes and Their Properties** Recognise and name common 2- D and 3-D shapes, including: * 2-D shapes [e.g. rectangles (including squares), circles and triangles] * 3-D shapes [e.g. cuboids (including cubes), pyramids and spheres]. **Position, Direction and Movement** Describe position, direction and movement, including half, quarter and three-quarter turns.	**Identifying Shapes and Their Properties** 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, [for example, a circle on a cylinder and a triangle on a pyramid] **Comparing and Classifying**	**Drawing and Construction** Draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them **Angles** 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 a complete turn; identify whether angles are greater	**Identifying Shapes and Their Properties** Identify lines of symmetry in 2-D shapes presented in different orientations **Drawing and Construction** Complete a simple symmetric figure with respect to a specific line of symmetry **Comparing and Classifying** Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes **Angles** Identify acute and obtuse angles and	**Identifying Shapes and Their Properties** Identify 3-D shapes, including cubes and other cuboids, from 2- D representations **Drawing and Construction** Draw given angles, and measure them in degrees **Comparing and Classifying** Use the properties of rectangles to deduce related facts and find missing lengths and angles Distinguish between regular and irregular polygons based on reasoning	**Identifying Shapes and Their Properties** Recognise, describe and build simple 3-D shapes, including making nets (appears also in Drawing and Constructing) Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius **Drawing and Construction** draw 2-D shapes using given dimensions and angles Recognise, describe and build

children recognise a shape can have others shapes within, just as numbers can. Use various construction sets in sustained construction projects eg The 3 bears beds and chairs. **Comparing and Classifying** Select, rotate and manipulate shapes in order to develop spatial reasoning skills Compose and decompose shapes so that children recognise a shape can have other shapes within it, just as numbers can. Sort shapes into categories according to their properties, eg all		Compare and sort common 2-D and 3-D shapes and everyday objects **Position, Direction and Movement** 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) **Pattern** Order and arrange combinations of mathematical objects in	than or less than a right angle Identify horizontal and vertical lines and pairs of perpendicular and parallel lines	compare and order angles up to two right angles by size **Position, Direction and Movement** 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	about equal sides and angles **Angles** Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles Identify: * angles at a point and one whole turn (total 360 o) * angles at a point on a straight line and ½ a turn (total 180 o) * other multiples of 90 o **Position, Direction and Movement** 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	simple 3-D shapes, including making nets (Also shown in Identifying Shapes and Their Properties) **Comparing and Classifying** Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons **Angles** Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles **Position, Direction and Movement** Describe positions on the full

	3 sided shapes, shapes with curved edges. **Position, Direction and Movement** Select, rotate and manipulate shapes in order to develop spatial reasoning skills To describe position, direction and movement including forwards, backwards, sideways, in front, behind, under, over, beside, next to, in between. To begin to introduce left and right. **Pattern** ELG: They recognise, create and describe patterns. Stages of understanding		patterns and sequences				coordinate grid (all four quadrants) Draw and translate simple shapes on the coordinate plane, and reflect them in the axes.

	repeated patterns cont. - continue, copy, make own ABC pattern - continue a pattern that has ended mid-unit of repeat - can do the above with a range of patters e.g. ABB, ABBC, AABB Can begin to symbolise unit structure of a pattern the letter R for the red dinosaur Can begin to explain the rule of a pattern and then create another pattern with the same rule. Can begin to make patterns that are not linear e.g. around a circle, or a border with fixed number of spaces					

Skills	EYFS/**Reception**	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Statistics	**INTERPRETING, CONSTRUCTING AND PRESENTING DATA** Compare quantities up to 10 in different contexts Introduction to simple tally charts Use of 3d block towers to interpret various contexts of data		**INTERPRETING, CONSTRUCTING AND PRESENTING DATA** 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	**INTERPRETING, CONSTRUCTING AND PRESENTING DATA** Interpret and present data using bar charts, pictograms and tables	**INTERPRETING, CONSTRUCTING AND PRESENTING DATA** Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs	**INTERPRETING, CONSTRUCTING AND PRESENTING DATA** Complete, read and interpret information in tables, including timetable	**INTERPRETING, CONSTRUCTING AND PRESENTING DATA** Interpret and construct pie charts and line graphs and use these to solve problems Calculate and interpret the mean as an average