

# TANKERSLEY ST PETERS C OF E PRIMARY SCHOOL CURRICULUM INTENT - MATHEMATICS

# EYFS - Yearly Overview

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Getting to know you (Take this time to play and get to know the children!)		to play w the	Just like me!			It's me 1, 2, 3!			Light and Dark		
Spring		Alive in 5	l	Growing 6, 7, 8		Building 9 and 10		d 10	Consolidation		on	
Summer	To 2	20 and Bey	yond	First, then, now		Find My Pattern		ern	On the Move			

# Year 1 - Yearly Overview

## Yearly overview

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Number Place value (within 10)						Number Addition and subtraction (within 10)					Consolidation
Spring	Number Place value (within 20)  Number Addition and subtraction (within 20)			1	Number Place value (within 50) Measurement Length and height					ne		
Summer	Number Multiplication and division		Geometry Position and direction		value in 100)	Measurement Money	Measure Time	ement	Consolidation			

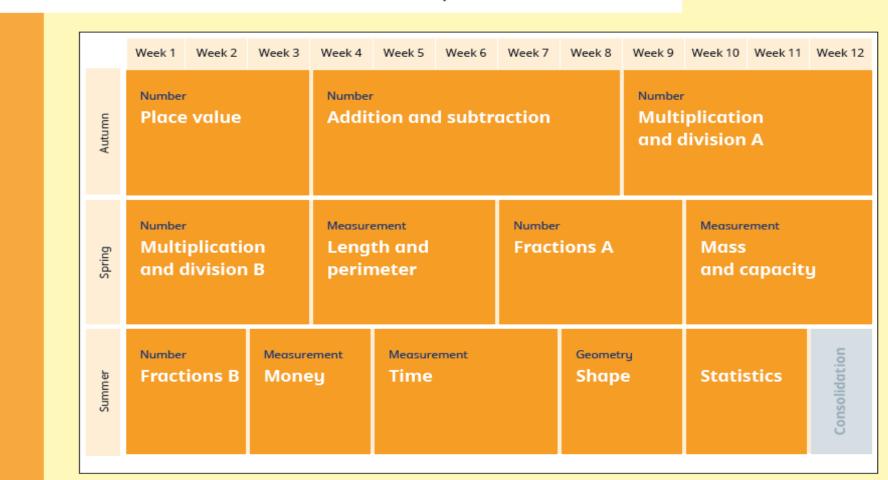
# Year 2 - Yearly Overview

## Yearly overview

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Number Place value			Number Addition and subtraction					Geometry Shape			
Spring	Measu Mon	rement <b>ey</b>		Number Multiplication and division			n	Measurement Length and height		Measurement Mass, capacity and temperature		
Summer	Stat	istics	Numbe Frac	ractions P			etry tion ction	Prob solvi		Measu Time	rement	

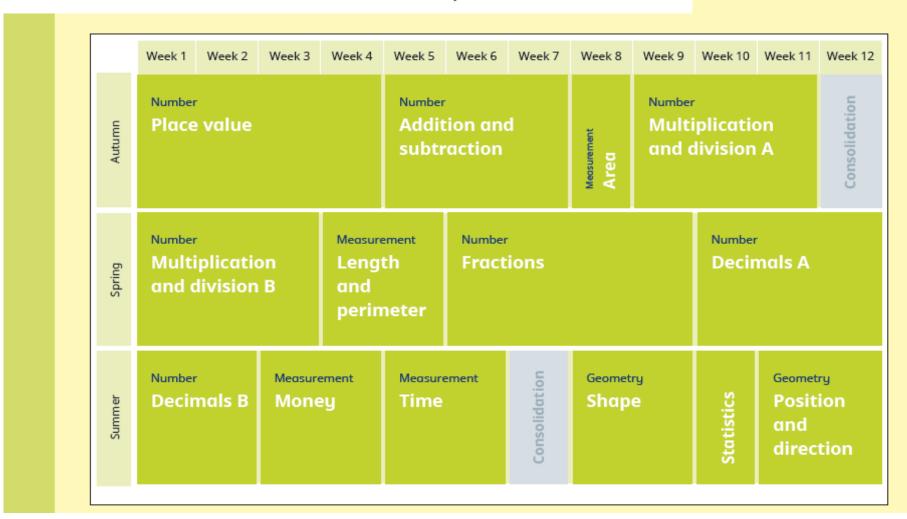
# Year 3 - Yearly Overview

### Yearly overview



# Year 4 - Yearly Overview

### Yearly overview



# Year 5 - Yearly Overview

# Yearly overview

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Number Place value		Number Addit and subtr		and division A		Number Fractions A					
Spring	Number  Multiplication  and division B		Number Fracti	ions B	Number Decimals and percentages		Measure Perim and a	neter	Statis	stics		
Summer	Geometry Shape		Geometr Positi and direct	ion	Number Decin	nals		Number Negative numbers	Measure Conve units	ment erting	Measurement Volume	

# Year 6 - Yearly Overview

## Yearly overview

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Number Place value Addition, su multiplication							Number Fracti	ions A	Number Fracti	ions B	Measurement Converting units
Spring	Ratio		Algeb	ra	Number Number Measurement Decimals Fractions, Area, perimeter and and percentages volume					Statis	tics	
Summer	Geometry Position and direction				Them	ed proj	ects, co	onsolide	ation a	nd prob	olem so	lving

# Progression

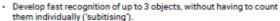
### EYFS Development Matters 2020 Statements and ELGs Mathematics

#### Birth to Three



- Take part in finger rhymes with numbers.
- · React to changes of amount in a group of up to three items.
- Compare amounts, saying 'lots', 'more' or 'same'.
- Develop counting-like behaviour, such as making sounds, pointing or saying some numbers in sequence.
- Count in everyday contexts, sometimes skipping numbers '1-2-3-5.'
- Climb and squeeze themselves into different types of spaces.
- Build with a range of resources.
- · Complete inset puzzles.
- Compare sizes, weights etc. using gesture and language 'bigger/ little/smaller', 'high/low', 'tall', 'heavy'.
- Notice patterns and arrange things in patterns.

#### Three and Four-Year-Olds



- Recite numbers past 5.
- Say one number for each item in order: 1.2.3.4.5.
- Know that the last number reached when counting a small set of objects tells you how many there are in total ('cardinal principle').
- Show 'finger numbers' up to 5.
- Link numerals and amounts: for example, showing the right number of objects to match the numeral, up to 5.
- Experiment with their own symbols and marks as well as numerals.
- · Solve real world mathematical problems with numbers up to 5.
- · Compare quantities using language: 'more than', 'fewer than'.
- Talk about and explore 2D and 3D shapes (for example, circles, rectangles, triangles and cuboids) using informal and mathematical language: 'sides', 'corners', 'straight', 'flat', 'round'.
- Understand position through words alone for example, "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'.
- Make comparisons between objects relating to size, length, weight and capacity.
- Select shapes appropriately: flat surfaces for building, a triangular prism for a roof, etc.
- Combine shapes to make new ones an arch, a bigger triangle, etc.
- Talk about and identifies the patterns around them. For example: stripes on clothes, designs on rugs and wallpaper. Use informal language like 'pointy', 'spotty', 'blobs', etc.
- Extend and create ABAB patterns stick, leaf, stick, leaf.
- Notice and correct an error in a repeating pattern.
- Begin to describe a sequence of events, real or fictional, using words such as 'first', 'then...'

#### Children in Reception





- Link the number symbol (numeral) with its cardinal number value.
- Count beyond ten.
- Compare numbers.
- Understand the 'one more than/one less than' relationship between consecutive numbers
- · Explore the composition of numbers to 10.
- Automatically recall number bonds for numbers 0-5 and some to 10.
- 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.
- · Continue, copy and create repeating patterns.
- Compare length, weight and capacity.

### Early Learning Goals

#### Numbe

- Have a deep understanding of number to 10, including the composition of each number.
- Subitise (recognise quantities without counting) up to 5.
- 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.

#### Numerical Patterns

- Verbally count beyond 20, recognising the pattern of the counting system.
- Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity.
- Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally.



# Primary Progression – Place Value



	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Place Value: Counting	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  Autumn 1 Autumn 4 Spring 2 Summer 4	count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward  Autumn 1	count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number  Autumn 1  Autumn 3	count in multiples of 6, 7, 9, 25 and 1000     count backwards through zero to include negative numbers  Autumn 1  Autumn 4	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  Autumn 1	
Place Value: Represent	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.  Autumn 1	read and write numbers to at least 100 in numerals and in words  identify, represent and estimate numbers using different representations, including the number line  Autumn 1	iidentify, represent and estimate numbers using different representations     read and write numbers up to 1000 in numerals and in words      Autumn 1	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  Autumn 1	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.  Autumn 1	read, write, (order and compare) numbers up to 10 000 000 and determine the value of each digit  Autumn 1
	Autumn 4 Spring 2 Summer 4	Automit	Automit	Automit	Automit	Autoliii

# Primary Progression – Place Value



	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Place Value : Use PV and Compare	given a number, identify one more and one less  Autumn 1 Autumn 4 Spring 2 Summer 4	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  Autumn 1	recognise the place value of each digit in a three-digit number (hundreds, tens, ones) compare and order numbers up to 1000  Autumn 1	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  Autumn 1	(read, write) order and compare numbers to at least 1 000 000 and determine the value of each digit      Autumn 1	(read, write), order and compare numbers up to 10 000 000 and determine the value of each digit  Autumn 1
Place Value: Problems& Rounding		use place value and number facts to solve problems.  Autumn 1	solve number problems and practical problems involving these ideas  Autumn 1	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  Autumn 1	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  Autumn 1	round any whole     number to a required     degree of accuracy     use negative numbers     in context, and     calculate intervals     across zero     solve number and     practical problems     that involve all of the     above  Autumn 1

# Primary Progression - Addition & Subtraction



Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Paddition & Suptraction:  Recall, Represent (1) an equals (=) signs represent and use number bonds and related subtraction facts within 20	derive and use related facts up to 100 • show that addition of two numbers can be done in any order	estimate the answer to a calculation and use inverse operations to check answers	estimate and use inverse operations to check answers to a calculation	use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy	
Autumn 2 Spring 1	Autumn 2	Autumn 2	Autumn 2	Autumn 2	

# Primary Progression - Addition & Subtraction



	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Addition & Subtraction: Calculations	add and subtract one- digit and two-digit numbers to 20, including zero	add and subtract numbers using concrete objects, pictorial representations, and mentally, including:     a two-digit number and ones     a two-digit number and tens     two two-digit numbers     adding three one-digit numbers	add and subtract numbers mentally, including:     a three-digit number and 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	add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate	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	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
	Autumn 2 Spring 1	Autumn 2	Autumn 2	Autumn 2	Autumn 2	Autumn 2

# Primary Progression - Addition & Subtraction



	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Addition & Subtraction: Solve Problems	solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = □ - 9	<ul> <li>solve problems with addition and subtraction:</li> <li>using concrete objects and pictorial representations, including those involving numbers, quantities and measures</li> <li>applying their increasing knowledge of mental and written methods</li> </ul>	solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction	solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why	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 the equals sign	solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why
	Autumn 2 Spring 1	Autumn 2	Autumn 2	Autumn 2	Autumn 2	Autumn 2

# Primary Progression – Multiplication & Division



	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Multiplication & Division: Recall, Represent, Use		recall and use multiplication and division facts for the 2, 5 and 10 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	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 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	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 the notation for squared (2) and cubed (3)	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.
		Autumn 4 Spring 1	Autumn 3	Autumn 4 Spring 1	Autumn 4	Autumn 2

# Primary Progression – Multiplication & Division



	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Multiplication & Division: Calculations		• calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (x), division (+) and equals (=) signs	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	multiply two-digit and three-digit numbers by a one-digit number using formal written layout	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 1000  Autumn 4	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     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
		Autumn 4 Spring 1	Autumn 3 Spring 1	Spring 1	Spring 1 Summer 1	Autumn 2

# Primary Progression – Multiplication & Division



	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Multiplication & Division: Solve Problems	solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher	solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts	solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects	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	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
2	Summer 1	Autumn 4 Spring 1	Spring 1	Spring 1	Autumn 4 Spring 1	Autumn 2
Multiplication & Division: Combined Operations					solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign	use their knowledge of the order of operations to carry out calculations involving the four operations
Mul					Spring 1	Autumn 2



	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Fractions: Recognise and Write	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	recognise, find, name and write fractions     \frac{1}{3}, \frac{1}{4}, \frac{2}{4} \text{ and } \frac{3}{4} \text{ of a length, shape, set of objects or quantity}	count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10     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  with small denominators  with small denominators	count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten.	<ul> <li>identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths</li> <li>recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements &gt; 1 as a mixed number [for example, <sup>2</sup>/<sub>5</sub> + <sup>4</sup>/<sub>5</sub> = <sup>6</sup>/<sub>5</sub> = 1 <sup>1</sup>/<sub>5</sub>]</li> <li>Spring 2</li> </ul>	
	Summer 2	Spring 4	Spring 5	Spring 3		
Fractions: Compare		Recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$	recognise and show, using diagrams, equivalent fractions with small denominators  compare and order unit fractions, and fractions with the same denominators	recognise and show, using diagrams, families of common equivalent fractions	compare and order fractions whose denominators are all multiples of the same number	use common factors to simplify fractions; use common multiples to express fractions in the same denomination compare and order fractions, including fractions > 1
		Spring 4	Summer 1	Spring 3	Spring 2	Autumn 3



	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Fractions: Calculations		• write simple fractions for example, $\frac{1}{2}$ of $6 = 3$	<ul> <li>add and subtract fractions with the same denominator within one whole [for example, <sup>5</sup>/<sub>7</sub> + <sup>1</sup>/<sub>7</sub> = <sup>6</sup>/<sub>7</sub>]</li> </ul>	add and subtract fractions with the same denominator	add and subtract fractions with the same denominator and denominators that are multiples of the same number     multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams	<ul> <li>add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions</li> <li>multiply simple pairs of proper fractions, writing the answer in its simplest form [for example, \frac{1}{4} \times \frac{1}{2} = \frac{1}{8}]</li> <li>divide proper fractions by whole numbers [for example, \frac{1}{3} \div 2 = \frac{1}{6}]</li> </ul>
		Spring 4	Summer 1	Spring 3	Spring 3	Autumn 3
Fractions: Solve Problems			solve problems that involve all of the above  Spring 5 Summer 1	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      Spring 3		



	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Decimals: Recognise and Write				recognise and write decimal equivalents of any number of tenths or hundredths recognise and write decimal equivalents to $\frac{1}{4}$ , $\frac{1}{2}$ , $\frac{3}{4}$ Spring 4  Summer 1	read and write     decimal numbers as     fractions [for     example, 0.71 = \frac{71}{100}]     recognise and use     thousandths and     relate them to tenths,     hundredths and     decimal equivalents      Spring 3	identify the value of each digit in numbers given to three decimal places  Spring 1
Decimals: Compare				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  Summer 1	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  Spring 3	



	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Decimals: Calculations & Problems				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	solve problems involving number up 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
				Spring 4	Summer 1	Spring 1



	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Fractions, Decimals and Percentages				solve simple measure and money problems involving fractions and decimals to two decimal places	<ul> <li>recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per hundred', and write percentages as a fraction with denominator 100, and as a decimal</li> <li>solve problems which require knowing percentage and decimal equivalents of ½, ¼, ½, ½, ½ and those fractions with a denominator of a multiple of 10 or 25</li> </ul>	associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example, \frac{3}{8}] recall and use equivalences between simple fractions, decimals and percentages, including in different contexts
Fracti				Spring 3 Spring 4 Summer 1	Spring 3	Spring 1 Spring 2

# Primary Progression - Ratio and Proportion



	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 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.  Spring 6

### Primary Progression - Algebra



	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 representations, and missing number problems such as 7 = □ - 9	recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems	solve problems, including missing number problems			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.  Spring 3

Note – although algebraic notation is not introduced until Y6, algebraic thinking starts much earlier as exemplified by the 'missing number' objectives from Y1/2/3

# Primary Progression – Measurement



Year	r 1 Year 2	Year 3	Year 4	Year 5	Year 6
• compare, deand solve problems for lengths and [for example long/short, longer/short tall/short, double/halt wass/weige example, he heavier that than] • capacity an [for example full/empty, than, less the half full, que time [for example, he heavier that than] • capacity an [for example full/empty, than, less the half full, que time [for example, he heavier than] • measure ar record the following time (hours seconds)  Spring	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 = wer, r] and begin to following: d heights ht do volume is, minutes,	measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)  Spring 4	Convert between different units of measure [for example, kilometre to metre; hour to minute] estimate, compare and calculate different measures  Autumn 3	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  Summer 1	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  Spring 4
Spring Summe		Summer 4	Spring 2 Summer 3	Summer 4 Summer 5	

# Primary Progression - Measurement



	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Measurement: Money	recognise and know the value of different denominations of coins and notes	recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value find different combinations of coins that equal the same amounts of money solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change	add and subtract amounts of money to give change, using both £ and p in practical contexts	estimate, compare and calculate different measures, including money in pounds and pence	use all four operations to solve problems involving measure [for example, money]	
	Summer 5	Autumn 3	Spring 2	Summer 2	Summer 1	

# Primary Progression - Measurement



	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
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	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	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]	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	solve problems involving converting between units of time	use, read, write and convert between standard units, converting measurements of time from a smaller unit of measure to a larger unit, and vice versa
	Summer 6	Summer 3	Summer 2	Summer 3	Summer 4	Year 5 Summer 4

# Primary Progression - Measurement



	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Measurement: Perimeter, Area, Volume			measure the perimeter of simple 2-D shapes	measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres     find the area of rectilinear shapes by counting squares	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 1 cm³ blocks to build cuboids (including cubes)] and capacity [for example, using water]	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 (cm³) and cubic metres (m³), and extending to other units [for example, mm³ and km³]
			Spring 4	Autumn 3 Spring 2	Autumn 5 Summer 5	Spring 5

# Primary Progression – Geometry



	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Geometry: 2-D Shapes	recognise and name common 2-D shapes [for example, rectangles (including squares), circles and triangles]	identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line     identify 2-D shapes on the surface of 3-D shapes, [for example, a circle on a cylinder and a triangle on a pyramid]     compare and sort common 2-D shapes and everyday objects	draw 2-D shapes	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	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	draw 2-D shapes using given dimensions and angles     compare and classify geometric shapes based on their properties and sizes     illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius
	Autumn 3	Spring 3	Summer 3	Summer 5	Summer 2	Summer 1
Geometry: 3-D Shapes	recognise and name common 3-D shapes [for example, cuboids (including cubes), pyramids and spheres]	recognise and name common 3-D shapes [for example, cuboids (including cubes), pyramids and spheres]. compare and sort common 3-D shapes and everyday objects	make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them		identify 3-D shapes, including cubes and other cuboids, from 2-D representations	recognise, describe and build simple 3-D shapes, including making nets
	Autumn 3	Spring 3	Summer 3		Summer 2	Summer 1

# Primary Progression - Geometry



	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Geometry: Angles & Lines			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 than or less than a right angle identify horizontal and vertical lines and pairs of perpendicular and parallel lines	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	<ul> <li>know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles</li> <li>draw given angles, and measure them in degrees</li> <li>identify:</li> <li>angles at a point and one whole turn (total 360°)</li> <li>angles at a point on a straight line and ½ a turn (total 180°)</li> <li>other multiples of 90°</li> </ul>	find unknown angles in any triangles, quadrilaterals, and regular polygons recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles
			Summer 3	Summer 5	Summer 2	Summer 1

# Primary Progression - Geometry



Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Position Geometry:  Position & Direction and movement, 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 anticlockwise)		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	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 four quadrants)     draw and translate simple shapes on the coordinate plane, and reflect them in the axes
Summer 3	Spring 3 Summer 1		Summer 6	Summer 3	Autumn 4

# Primary Progression - Statistics



	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Statistics: Present and Interpret		interpret and construct simple pictograms, tally charts, block diagrams and simple tables  Spring 2	interpret and present data using bar charts, pictograms and tables  Spring 3	interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs	complete, read and interpret information in tables, including timetables  Autumn 3	interpret and construct pie charts and line graphs and use these to solve problems  Summer 3
Statistics: Solve Problems		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      Spring 2	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  Spring 3	solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs	solve comparison, sum and difference problems using information presented in a line graph  Autumn 3	calculate and interpret the mean as an average  Summer 3

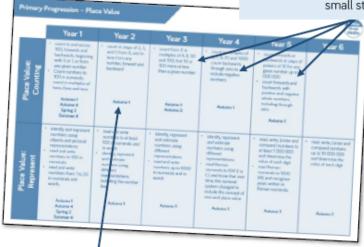


## How does this document work?

The aim of this document is to give an at-a-glance guide to how the White Rose Maths curriculum links to the Key Stage 1 and 2 National Curriculum, and how it progresses through topics.

In each of the major topic areas (Number, Measurement, Geometry and Statistics), the curriculum has been broken down into key areas. For each of these areas, you can then see which NC objectives are covered in that year, together with the term and block in which that objective is first met in the White Rose Maths schemes.

These are the NC objectives. In our schemes these are broken down into the small steps.



Where this objective appears in our schemes of learning.

### Who is it for?

This progression will help:

- Class teachers for each topic, teachers will be able to see exactly what they are meant to cover in their year group, but also what they can expect students to have covered in the previous year (Y2 to 6), and where the learning continues next year (Y1 to 5)
- Maths subject leaders and senior leaders— the progression provides an overview of the whole primary phase so leaders can clearly see how topics are developed over time. They will also be aware of when topics are taught and what resources may be needed across the school at particular times.

# When are topics revisited?

The White Rose Maths curriculum is a cumulative curriculum, so that once a topic is covered it is met many times again in other contexts – often so many that listing them all is impractical. For example, place value is always covered in Autumn 1 but revisited within addition and subtraction, multiplication and division etc. We are also adding "Flashback Four" to our premium resources to support teachers with spaced repetition of key topics throughout and between years.

# MATHS AT TANKERSLEY



Children will explore learning objectives using a range of approaches to gain a deeper understanding.

Activities will show **variance** to deepen understanding.

Make connections!

The learning
environment will
support the needs of
all our children.

Vocabulary will be taught, explained and displayed.

Concrete

Pictorial (bar model)

**Abstract** 

Maths Meetings will

take place to give our children the opportunity to embed concepts and skills, and learn times tables.

The answer is just the beginning!

Children will continuously self-assess their depth of understanding.

> Children will answer questions verbally in a complete sentence.

Children will continuously be explaining their learning-both written and verbal.

Children will explore learning objectives in a range of contexts to gain a deeper understanding.

Fluency Reasoning
Problem Solving

Use what you know to work out what you don't!

Same day 'keep up' intervention.