

Why do we teach Maths?

- At Beechwood, we teach Maths as it provides essential life skills that will enable our diverse intake to succeed in life.
- We have an ambitious and accessible curriculum for all children - reasonably adjusting tasks where necessary to help all children be successful in their learning.
- As well as crucial number fluency, Maths at Beechwood equips our learners with thinking skills such as reasoning and problem-solving abilities that they can apply to a wide range of situations. Children learn to think systematically, as well as in abstract and creative ways.
- It helps our children to make sense of the numbers, patterns and shapes they see in the world around them, which can further stimulate their curiosity.
- With a higher-than-average percentage of Pupil Premium children, who may have less exposure outside of school to Mathematically-themed conversations and scenarios, as well as the language of reasoning and problem solving, it is crucial we provide opportunities for all our pupils to engage in these situations.
- Pupils are taught the full National Curriculum, with Number work supplemented with learning about Measure, Geometry and Statistics - all of which provide crucial life skills for our learners, as well as skills that support their learning in the Wider Curriculum
- Our Maths lessons require sustained effort and focus from all children throughout the lesson - building a resilience for learning that supports their Wider Curriculum and lives in the wider world. Furthermore, it supports the development of their Growth Mindset, with failure supporting their social and emotional learning.
- Our Maths curriculum teaches the children the value of accuracy and precision in their work.
- Maths prepares our children for a wider world in which problem solving and analytical skills are more important than ever, particularly if they are to succeed in highly-sought STEM careers
- Maths is an integral part of our society, economy and culture; therefore, it is an integral part of a child's learning at Beechwood.

How is Maths sequenced within our school?

1. Maths teaching at Beechwood ensures there is challenge for all pupils throughout their learning
2. Units are taught in a sequence within each year group, guided by the high-quality Maths No Problem sequencing, beginning with the place value and number work upon which all other Maths depends, before broadening out to other units. Within each unit, each lesson represents a small step in learning.
3. Lessons are structured in a way that provides children with opportunities practise the various skills that make them successful Mathematicians:
4. They begin with a fluency opener which retrieves a previously taught concept that underpins their ability to succeed in that day's learning, with the teacher able to conduct AfL and address misconceptions.
5. The children discuss a real-life problem, share their initial thoughts, and consider what Maths learning they will need to apply in order to solve it
6. The children learn a method through guided practice, following Beechwood's "I do, we do, You do" model
7. Children complete fluency and problem-solving tasks independently, with some learners accessing adapted learning, with teaching staff monitoring throughout and providing further support where needed
8. The class together looks at a reasoning problem with the class teacher, before tackling a similar problem independently
9. Many children go on to complete tasks that investigate the concept in greater depth

- There is a strong focus on retrieval within Maths at Beechwood, with small steps building on prior learning, fluency starters in lessons to recall linked methods and known facts, and, in particular daily "fluency" Arithmetic to retrieve previously taught operations - the children complete this daily independently before the thinking is modelled by the teacher, with AfL used to return to areas that children have forgotten or have misconceptions.
- All children are engaged in concrete, pictorial and abstract Maths to deepen their understanding, as well as to support our mixed intake including our high number of SEND learners with the type of adaptations they require.

What will our children learn?

- Children will develop a deep understanding of place value that underpins their wider Maths learning.
- Children will develop a fluency in numbers and the four operations, in both the basic and wider number systems, which will enable them to progress across the whole curriculum.
- Children will gain an understanding of Shape, Measure and Statistics that they can apply to real life situations.
- Children will be able to interpret real world word problems and independently select and apply Mathematical procedures to solve them.
- Children will gain the ability to reason about Mathematical situations, forming their own conjectures and supporting their ideas with Mathematical evidence and vocabulary.
- The learning of facts, rules and vocabulary (and their application) is over-learned at frequent intervals, leading to improved recall from long-term memory.
- The development of efficient and accurate methods is paramount, guiding the children to think more systematically while developing an automaticity in their mathematical methods.
- Children apply their learning and functional skills to a wide range of different contexts, preparing them to apply their Maths learning to the Wider Curriculum and the wider world.

Maths Subject Progression – Reviewed January 2024				
Year 2	Year 3	Year 4	Year 5	Year 6
Place Value				
Read and write numbers up to at least 100.	Read and write numbers up to 1000.	Read and write numbers up to 10,000	Read and write numbers up to 1,000,000	Read and write numbers up to 10,000,000
Compare and order numbers up to 100	Compare and order numbers up to 1000	Compare and order numbers up to 10,000	Compare and order numbers up to 1,000,000	Compare and order numbers up to 10,000,000
Find 1 and 10 more or less than a number	Find 10 or 100 more or less than a number	Find 1000 more or less than a number		
2NPV-1 Recognise the place value of each digit in a two-digit numbers and compose and decompose two-digit numbers using standard and non-standard partitioning	3NPV-1 Know that 10 tens are equivalent to 1 hundred, and that 100 is 10 times the size of 10; apply this to identify and work out how many 10s there are in other three-digit multiples of 10	4NPV-1 Know that 10 hundreds are equivalent to 1 thousand, and that 1000 is 10 times the size of 100; apply this to identify and work out how many 100s there are in other four-digit multiples of 100	5NPV-1- Know that 10 tenths are equivalent to 1 one, and that 1 is 10 times the size of 0.1 . Know that 100 hundredths are equivalent to 1 one, and that 1 is 100 times the size 0.01. Know that 10 hundredths are equivalent to 1 tenth and that 0.1 is 10 times the size of 0.01.	6NPV-1 Understand the relationship between powers of 10 from 1 hundredth to 10 million and use this to make a given number to 10, 100, 1000 1 tenth, 1 hundredth or 1 thousandth times the size (multiply and divide by 10, 100 and 1000)
2NPV-2 Reason about the location of any two- digit number in the linear number system, including identifying the previous and next multiple of 10	3NPV-2 Recognise the place value each digit in a three-digit number, and compose and decompose three-digit numbers using standard and non-standard partitioning	4NPV-2-Recognise the place value of each digit in a four-digit number and compose and decompose four- digit numbers using standard and non-standard partitioning	5NPV-2 - Recognise the place value of each digit in numbers up to 2 decimal places, and compose and decompose numbers with up to 2 decimal places using standard and non-standard partitioning	6NPV-2 Identify the place value of each digit up to 10 million, including decimal fractions, and compose and decompose numbers up to 10 million using standard and non-standard partitioning.
	3NPV-3 - Reason about the location of any three-digit number in the linear number system, including identifying the previous and next multiple of 100 and 10	4NPV-3- Reason about the location of any four- digit number in a linear number system, including identifying the previous and next multiple of 1000 and 100 and rounding numbers to the nearest 10, or 100 up to 1000	5NPV-3 - Reason about the location of any number with up to 2 decimals places in the linear number system, including identifying the previous and next multiple of 1 and 0.1 and rounding to the nearest of each.	6NPV-3 Reason about the location of any number up to 10 million including decimal fractions, in the linear number system

	3NPV-4 - Divide 100 into 2,4,5 and 10 equal parts, and read scales/number lines marked in multiples of 100 with 2,4,5 and 20 equal parts	4NPV-4 Divide 1000 into 2,4,5 and 10 equal parts and read scales/number lines marked in multiples of 1000 with 2,4,5 and 10 equal parts	5NPV-4 Divide 1 into 2,4,5 and 10 equal parts and read scales/number lines marked in units of 1 with 2,4,5 and 10 equal parts	6NPV-4- Divide powers of 10, from 1 hundredth to 10 million, into 2,4,5 and 10 equal parts and read scales/number lines with labelled intervals divided in 2,4,5 and 10 equal parts.
		Count forwards and backwards through 0 to -10.	Interpret negative numbers through 0 and apply to a context	Interpret and use negative numbers in context
	Read and write numerals up to 12	Read and write Roman Numerals up to 100	Read and write Roman Numerals up to 1000	Read and write Roman Numerals up to 10,000
	How to round to the nearest 10 and use it to estimate	How to round to the nearest 10, 100 and 1000	How to round to the nearest 10, 100, 1000, 10,000 and to the nearest whole number	6NPV-3 Round any whole number to a required degree of accuracy
Year 2	Year 3	Year 4	Year 5	Year 6
Addition and Subtraction				
2NF-1 Secure fluency in addition and subtraction facts within 10, through continued practice. 2AS-1 Add and subtract across 10	3NF-1 Secure fluency in addition and subtraction facts that bridge 10 through continued practice. 3AS-1 Calculate complements to 100			
2AS-3 - Add and subtract within 100 by applying related one-digit addition and subtraction facts 2AS-4 Add and subtract within 100 by applying related one-digit addition and subtraction facts: add and subtract any 2-digit numbers.	3NF-3 Apply place value knowledge to known additive number facts	4NF-3 Apply place value knowledge to known additive number facts	5NF-2 Apply place value knowledge to known additive number facts (scaling facts by 1 tenth or 1 hundredth)	

<p>Add and subtract using column method up to two-digit numbers</p> <p>2AS-2 Recognise the subtraction structure of 'difference' and answer questions of the form 'How many more...'</p>	<p>3AS-2 Add and subtract up to three-digit numbers using columnar methods.</p>	<p>Add and subtract whole numbers using column addition and subtraction up to four digits including using carrying and exchanging</p>	<p>Add and subtract whole numbers with more than four digits using column addition and subtraction including carrying and exchanging</p> <p>Add and subtract digits up to one decimal place</p>	<p>Add and subtract whole numbers with more than four digits including carrying and exchanging</p> <p>Add and subtract digits up to three decimal places</p>
<p>Use concrete and pictorial representations to solve problems</p>	<p>Add and subtract numbers mentally up to a three-digit number and hundreds</p>	<p>Selecting appropriate representations to solve problems (mental strategies, diagrams etc)</p>	<p>Select whether a mental or written method is most appropriate to answer a question</p>	<p>Select whether a mental or written method is most appropriate to answer a question and justify reasons for this</p>
<p>Add three one-digit numbers</p>	<p>Add and subtract two one-digit numbers and one two-digit number ($20 - 3 - 4 = ?$)</p>	<p>Add and subtract three given numbers with a mixture of addition and subtraction (e.g. $100 + 35 - 50 = ?$)</p>	<p>Answer questions with a mixture of operations (e.g. $20 \times 2 - 8 = ?$)</p>	<p>Use BODMAS accurately</p>
<p>Use the inverse relationship to check calculations</p> <p>Show that addition is commutative and subtraction is not</p>	<p>Use inverse operations to check answer</p> <p>3AS-3 Manipulative additive relationship: Understand the inverse relationship between addition and subtraction and how both relate to the part-part-whole structure.</p> <p>Understand and use the commutative property of addition and understand the related property for subtraction</p>	<p>Estimate and use inverse operations to check answers</p>	<p>Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction</p>	<p>6AS/MD 1 - Understand that 2 numbers can be related additively or multiplicatively and quantify additive and multiplicative relationships (multiplicative relationships restricted to multiplication by a whole number)</p> <p>6AS/MD 1 - Use a given additive or multiplicative calculation to derive or complete a related calculation using arithmetic properties, inverse relationships and place value understanding.</p>
	<p>3F-4 Add and subtract fractions with the same denominator within 1.</p>	<p>4F-1 Add and subtract fractions including mixed number and improper fractions with the same denominator</p>	<p>Add and subtract fractions including mixed with equivalent denominators</p>	<p>Add and subtract fractions including mixed numbers and different denominators</p>

Year 2	Year 3	Year 4	Year 5	Year 6
Multiplication				
<p>2MD-1 Recognise repeated addition contexts, representing them with multiplication equations and calculating the product within 2,5 and 10 timestables</p> <p>2MD-2 Relate grouping problems where the number of groups is unknown to multiplication equations and calculating the product within the 2,5 and 10 multiplication tables.</p> <p>Recall and use multiplication facts for the 2,5 and 10 multiplication table recognising odd and even numbers</p>	<p>Recall and use 2,5,10,3,4,11 times table facts</p> <p>3NF-2 Recall multiplication and the corresponding division facts, in the 10, 5, 2, 4 and 8 multiplication tables and recognise products in these multiplication tables as multiples of the corresponding number</p> <p>3NF-3 Apply place value knowledge to known multiplicative number facts</p> <p>Multiply using the 25 times table up to 200</p>	<p>4NF-3 Apply place value knowledge to known multiplicative number facts</p> <p>4NF-1 Recall multiplication and division facts up to 12x12 and recognise products in multiplication tables as multiples of the corresponding number</p>	<p>5NF-1 Secure fluency in multiplication table facts and corresponding division facts through continued practice.</p> <p>5NF-2 Apply place value knowledge to known multiplicative number facts (scaling facts by 1 tenth or 1 hundredth)</p>	<p>6AS/MD 1 - Understand that 2 numbers can be related additively or multiplicatively and quantify additive and multiplicative relationships (multiplicative relationships restricted to multiplication by a whole number)</p> <p>6AS/MD 1 - Use a given additive or multiplicative calculation to derive or complete a related calculation using arithmetic properties, inverse relationships and place value understanding.</p>
	<p>Multiply by 10 up to 1000</p>	<p>4MD-1 Multiply and divide whole numbers by 10 and 100 (keeping to whole numbers) understand this as equivalent to making a number 10 or 100 times the size.</p>	<p>5MD-1 Multiply and divide numbers by 10 and 100 understand this as equivalent to making a number 10 or 100 times the size or 1 tenth or 1 hundredth the size.</p>	<p>6NVP-1 How to multiply by 10,100,1000</p>

<p>Calculate mathematical statements for multiplication within the times tables using x and = signs</p> <p>how that multiplication is commutative</p>	<p>3MD-1 Apply known multiplication and division facts to solve contextual problems with different structures, including quotative and partitive division.</p> <p>Use mental methods and short multiplication written method to multiply a two- digit number by a one- digit number.</p> <p>Solve problems, including missing number problems, involving multiplication, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects</p> <p>Multiply using mental methods including the commutative law up to two-digit by one-digit</p>	<p>Multiply using short multiplication up to three- digit by one-digit numbers</p> <p>4MD-2 Manipulate multiplication and division equations and understand and apply the commutative property of multiplication.</p> <p>4MD-3 Understand and apply the distributive property of multiplication.</p> <p>Multiply using mental methods including the distributive and commutative laws up to three - digit by one digit</p>	<p>5MD-3 Multiply any whole number with up to 4 digits by any 1-digit number using a formal written method.</p> <p>Multiply using mental methods including the distributive and commutative laws up to four- digit by two-digit</p>	<p>Multiply using short and long multiplication up to four- digit by two-digit numbers including to two decimal places.</p> <p>Multiply using mental methods including the distributive and commutative laws up to four- digit by two-digit</p>
	<p>Find factor pairs and multiples for 2,5,10,3,4 and 11 times tables</p>	<p>Find factor pairs and multiples for all times tables.</p> <p>Understand square and prime numbers</p>	<p>5MD-2 Find factors and multiples of positive whole numbers including common factors, and common multiples, and express a given number as a product of 2 or 3 factors.</p> <p>Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes</p> <p>Use the vocabulary of prime numbers, prime factors and composite numbers</p>	<p>Use prime, square, cubed, factors and multiples knowledge for efficiency when answering questions</p>

Year 2	Year 3	Year 4	Year 5	Year 6
Division				
<p>2MD-2 Relate grouping problems where the number of groups is unknown to multiplication equations with a missing factor, and to division equations.</p> <p>Recall and use division facts for the 2,5 and 10 times tables</p>	<p>3NF-2 Recall multiplication and the corresponding division facts, in the 10, 5, 2, 4 and 8 multiplication tables</p> <p>Recall and use division facts for 2,5,10,3,4,11 times tables</p>	<p>4NF-1 Recall multiplication and division facts up to 12x12</p> <p>Recall and use division facts for all times tables</p>	<p>5NF-1 Secure fluency in multiplication table facts and corresponding division facts through continued practice.</p>	<p>Use short division effectively when dividing by known times table facts</p>
	<p>Divide by 10 staying within whole numbers</p>	<p>4MD-1 Multiply and divide whole numbers by 10 and 100 (keeping to whole numbers) understand this as equivalent to making a number 10 or 100 times the size.</p> <p>Divide by 10 and 100</p>	<p>5MD-1 Multiply and divide numbers by 10 and 100 understand this as equivalent to making a number 10 or 100 times the size or 1 tenth or 1 hundredth the size.</p> <p>Divide by 10, 100 and 1000 to two-decimal places</p>	<p>6NVP-1 How to divide by 10, 100 and 1000 to three-decimal places</p>
<p>Calculate mathematical statements for division within the times tables using \div and $=$</p> <p>Use concrete objects and drawings to share numbers equally</p>	<p>3MD-1 Apply known multiplication and division facts to solve contextual problems with different structures, including quotative and partitive division.</p> <p>Use concrete objects and drawings to group numbers equally including repeated subtraction using a number line</p> <p>Use chunking using the year 3 times table facts to support them up to two-digit divided by one-digit</p>	<p>Use long division (chunking) and times table facts to support them up to three-digit divided by one-digit</p> <p>4NF-2 Solve division problems, with two-digit dividends and one-digit divisors that involve remainders and interpret remainders appropriately for the context.</p> <p>4MD-2 Manipulate multiplication and division equations</p>	<p>5MD-4 Divide a number with up to 4 digits by a one-digit number using a formal written method and interpret remainders appropriately for the context,</p> <p>Use division facts to mentally divide three- digit by one- digit numbers</p>	<p>Use division facts to mentally or use long division (chunking) to divide four- digit by two- digit numbers</p> <p>Show remainders as fractions, decimals or express when a remainder requires rounding</p> <p>To select an appropriate division method depending on the question</p> <p>Divide fractions by fractions and by whole numbers</p>

	Solve problems, including missing number problems, involving division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects			
--	--	--	--	--

Year 2	Year 3	Year 4	Year 5	Year 6
Solving problems with 4 operations				
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, using number facts, place value and more complex addition and subtraction	Solve addition and subtraction 2 step problems in contexts, deciding which operations and methods to use and why	Solve addition and subtraction multi-step problems in contexts, deciding which operation 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 multiplication and division using materials, arrays, repeated addition, mental methods and $\times \div$ facts, including problems in contexts	Solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems involving different contexts and connections	Solve problems involving the four operations 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 scaling by simple fractions and problems involving simple rates	Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates
			Solve problems involving addition, subtraction multiplication and division and a combination of these including understanding the meaning of an equals sign	Use BODMAS accurately Solve problems involving the 4 operations

Year 2	Year 3	Year 4	Year 5	Year 6
Algebra				
Use + - x ÷ = < > accurately	Replace numbers with symbols with an agreed value	Solve simple equations with pictures and letters replacing numbers using known number facts	Solve simple equations including brackets	6AS/MD - 4 - Solve problems with 2 unknowns. Use simple formulae
	Create and find missing values in simple number sequences	Create and find missing values in number sequences	Create and find missing numbers in sequences and equations including questions with more than one possible answer	Generate and describe linear number sequences Express missing number problems algebraically
			Find missing angles, calculate area, perimeter using formulae	Solve problems including area, perimeter and volume using formulae of increasing complexity

Year 2	Year 3	Year 4	Year 5	Year 6
Fractions, decimals and percentages				
<ul style="list-style-type: none"> Recognise, find, name and write fractions $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{4}$ and $\frac{3}{4}$ of a length, shape, set of objects or quantity 	<ul style="list-style-type: none"> Find fractions of objects and numbers 	<ul style="list-style-type: none"> Find equivalent fractions using diagrams and multiples knowledge to support them 	<ul style="list-style-type: none"> Show fractions in their simplest form Find equivalent fractions Understand how to express a fraction that is larger than one whole Convert between mixed number and improper fractions 	<ul style="list-style-type: none"> Simplify fractions and find their lowest common denominator 6AS/MD -3 - Solve problems involving ratio relationships Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts Solve problems involving the calculation of percentages and

				<p>percentages for comparison</p> <ul style="list-style-type: none"> Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples
Write simple fractions for example, $\frac{1}{2}$ of 6 = 3 and recognise equivalence of $2/4 = \frac{1}{2}$	<ul style="list-style-type: none"> Write equivalent fractions and draw them pictorially understanding the whole must be the same size 	<ul style="list-style-type: none"> Convert and recall common fractions into decimals facts 	•	<ul style="list-style-type: none"> Find common fraction and decimal equivalents using known facts to support them e.g $1/8 = 0.125$ so $3/8 = 0.375$
	<ul style="list-style-type: none"> Compare and order fractions with the same denominator 	<ul style="list-style-type: none"> Compare and order fractions whose denominators are multiples of each other 	•	<ul style="list-style-type: none"> Compare and order fractions by finding common denominators
	Understand and express $\frac{1}{2}$, $\frac{1}{4}$, $1/10$, $2/4$ and $\frac{3}{4}$	<ul style="list-style-type: none"> Understand and express simple fractions as their equivalent decimal and percentage 	<ul style="list-style-type: none"> Convert between simple decimals, fractions and percentages e.g. $71/100 = 0.71 = 71\%$ 	<ul style="list-style-type: none"> Able to convert fractions, decimals and percentages and select which is the most appropriate
		<ul style="list-style-type: none"> Convert tenths and hundredths into decimals 	•	
		<ul style="list-style-type: none"> Understand that percent means out of 100 and show this visually 	<ul style="list-style-type: none"> Calculate simple fraction and percentages of amounts 	<ul style="list-style-type: none"> Calculate fractions and percentages of amounts

Year 2	Year 3	Year 4	Year 5	Year 6
Measurement				
Choose and use appropriate units to estimate and measure length, height, mass, temperature, capacity	Measure, compare and calculate length using m, mm and cm	Estimate and compare measures	Understand the difference between metric and imperial units and estimate between them (using recipes and patterns)	Convert between metric measures selecting which to use appropriately which may include

<p>Compare and order lengths, mass, volume and record results using < > =</p>	<p>Measure, compare and calculate mass using g and kg</p> <p>Measure, compare and calculate volume/capacity in l and ml</p>	<p>Calculate measures and convert between simple ones e.g mm - cm - m</p>	<p>5NPV-5 - Convert between units of measure, including using common decimals and fractions</p>	<p>expressing the answer as a decimal</p> <p>Convert between miles and km</p>
		<p>Measure and calculate perimeter of a rectilinear shape</p> <p>Find the area of a rectilinear shape by counting squares</p>	<p>Estimate and measure the perimeter of different shapes including using formulae to calculate perimeter</p> <p>Estimate and measure the area of different shapes including using formulae to calculate area</p> <p>Calculate volume and capacity using blocks and water</p>	<p>Calculate area and perimeters of different shapes using formulae</p> <p>Use formulae to calculate the volume of shapes</p> <p>Compare shapes by area and perimeter recognising that shapes may have the same area but different perimeters</p>
<p>Recognise £ p and be able to make values using coins</p> <p>Find different coins that equal the same amount</p>	<p>To make values use coins and a number of different variations</p> <p>To add and subtract money (This is to be done physically using pence and GDS children pushed to convert this into £ discussing decimal point) (3AS-2)</p>	<p>To add and subtract money</p> <p>Compare and order different amounts of money</p>	<p>To apply knowledge of money to reasoning questions.</p> <p>To multiply amounts of money using knowledge of decimals and an appropriate multiplication method (E.g. $4 \times \text{£}2.99$)</p>	
<p>Tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock to show these times</p> <p>Compare and sequence intervals of time</p> <p>Know the number of minutes in an hour and hours in a day</p>	<p>Know the months of the year, how many days are in each month, how many weeks are in a year, what a leap year is</p> <p>Tell the time using digital 24 hours or 12-hour analogue</p> <p>Understand how a timetable works (modelled on school timetable)</p>	<p>Measure different periods of time and estimate how long a task might take e.g. Drawing a picture might take a quarter of an hour</p> <p>Use and compare different time tables</p>	<p>Convert between units of time and understand which is the most appropriate to use</p> <p>Use timetables confidently to answer questions, plan journeys and activities</p>	<p>Convert between units of time and understand which is the most appropriate to use</p> <p>Use timetables confidently to answer questions, plan journeys and activities</p>

Year 2	Year 3	Year 4	Year 5	Year 6
Geometry				
<p>Identify basic 2D shapes</p> <p>Order and arrange combinations of mathematical objects in patterns and sequences</p>	<p>Identify, draw and describe 2D shapes</p> <p>Identify, draw and describe 3D shapes</p> <p>Identify horizontal, vertical, perpendicular and parallel lines</p> <p>Understand what symmetry is and draw symmetrical shaded square patterns</p>	<p>Compare and group shapes based on shared properties</p> <p>Identify lines of symmetry in 2D shapes</p>	<p>Identify regular and irregular 2D shapes</p> <p>Identify 3D shapes</p>	<p>Compare and classify shapes based on their properties</p> <p>Accurately draw 2D shapes using given dimensions and angles</p> <p>Draw, translate and reflect shapes</p> <p>Identify and describe 3D shapes</p> <p>Name parts of a circle including radius, diameter and circumference</p> <p>Use scale to compare and resize shapes</p>
<p>Use mathematical language to describe position direction and movement</p> <p>Know what a right angle is</p>	<p>Identify angles as a turn and recognise right angles as a quarter turn</p> <p>Recognise right, obtuse and acute angles</p>	<p>Identify obtuse and acute angles and understand their properties</p> <p>Compare angles in different contexts based on size</p> <p>Identify angles as turns e.g. quarter, half and three quarters</p>	<p>Estimate and compare angles including acute, right, obtuse and reflex</p> <p>Draw and measure angles</p> <p>Find missing lengths and angles in simple shapes</p> <p>Understand how many degrees each turn is e.g. 1 quarter turn = 90°</p>	<p>Find missing angles both interior and exterior, when they meet at a point, straight line or vertically opposite</p>
	<p>Plot simple coordinates on a 1 quadrant grid</p>	<p>Plot coordinates on 1 quadrant to make a shape</p> <p>Translate positions on a grid and describe their movement</p>	<p>Plot coordinates across all 4 quadrants</p> <p>Reflect and translate shapes using coordinates to describe its position</p>	<p>Use coordinates in all 4 quadrants to describe position and solve missing coordinate shape questions</p>

Year 2	Year 3	Year 4	Year 5	Year 6
Statistics				
<p>Interpret and construct simple pictograms, tally charts, block diagrams and simple tables</p>	<p>Interpret and construct simple pictograms, tally charts, block diagrams and simple tables and select which is the most appropriate</p> <p>Be able to collect data using a tally chart</p> <p>Be able to create and read different Venn and Carroll diagrams</p>	<p>Use tables, pictograms and charts for discrete data including interpreting and presenting data</p> <p>Use time graphs for continuous data</p> <p>Draw and use appropriate tables for data collection including grouping numbers e.g 1-10, 11-20 etc</p>	<p>Use line graphs to solve problems including comparison, sum and difference problems</p> <p>Interpret information in tables</p>	<p>Use pie charts and line graphs interpreting, drawing and using them to answer questions and to prove a point</p>
<p>Ask and answer simple questions by counting the number of objects in each category and sorting the categories</p> <p>Ask and answer questions about totalling and comparing categorical data</p>	<p>Use data to show answers to questions and select appropriate questions to ask</p>	<p>Identify appropriate questions, collect data and select the appropriate way to display data.</p>	<p>Identify appropriate questions, collect data, display data appropriately and interpret data</p>	<p>Identify appropriate questions, collect data, display data appropriately and interpret data</p>
			<p>Calculate the range within collected numerical data</p>	<p>Calculate and interpret the mean</p>

Year 3 Overview	Autumn 1	Autumn 2
Maths Concepts	<ul style="list-style-type: none"> - Read, write and recognise the place value of each digit in a three digit number - Order and compare numbers up to 1000 (3NPV-3) - Finding 10 and 100 more or less - How many 10s and 100s there are in a 3 digit number and the next multiple of 10 and 100 (3NPV 1&3) - How to divide 100 into 2,4,5 and 10 (3NPV-4) - How to read scales and number lines marked with multiples of 100 with 2,4,5 and 10 equal parts (3NPV-4) - Count up in fractions - How to express fractions - How to find fractions of objects (3F-1) 	<ul style="list-style-type: none"> - Rounding mentally to the nearest 10 - Equivalent fractions - Ordering and comparing fractions with the same denominator - Learning how to add and subtract powers of 10 (3AS 1 and 3NF1) - Add and subtract numbers using mental partitioning (3NF-3) - Column addition (3AS-2) - Add and subtract fractions with the same denominators (3AS-2)
	Spring 1	Spring 2
Maths Concepts	<ul style="list-style-type: none"> - Multiplication tables - Division facts - Word problems with multiplication and division - Multiplying 2-digit number - Dividing 2-digit numbers - Writing lengths in m, cm, mm - Comparing lengths - Measurement problems 	<ul style="list-style-type: none"> - Reading weighing scales - Word problems linked to mass - Measuring capacity and volume in l and ml - Word problems linked to volume - Counting money - Adding and subtracting money - Calculating change - Word problems linked to money
	Summer 1	Summer 2
Maths Concepts	<ul style="list-style-type: none"> - Telling the time - Measuring and comparing time - Drawing and reading pictograms - Drawing and reading bar graphs - Compare and order fractions 	<ul style="list-style-type: none"> - Adding and subtracting fractions - Fraction problems - Making and finding angles and turns - Comparing angles - Perpendicular, parallel, horizontal and vertical lines - Drawing 2D and 3D shapes - Measuring and calculating perimeters

Year 4 Overview	Autumn 1	Autumn 2
Maths Concepts	<ul style="list-style-type: none"> - Recall my 0-12 timestable facts (throughout the year) (4NF-1 and 4MD-2) - Read and write numbers up to 10,000 - Identify the place value of each digit in a 4 digit number (4NPV-2) - 1000 more and less - How many 100s there are in a 4 digit number (NVP-1) - Compare and order numbers up to 10,000 (4NPV-3) - Order fractions who have equivalent denominators - Find equivalent fractions using multiples - Convert tenth and hundredths into decimals - Common equivalent fractions and decimals - Recognise Roman Numerals up to 20 	<ul style="list-style-type: none"> - Recall my 0-12 timestable facts (throughout the year) (4NF-1 and 4MD-2) - What percent means (visually) - Express simple equivalent F/D/P - Count forwards and backwards through zero to -10 - Mixed numbers and where they fit on a number line (4F-1) - Convert mixed numbers and improper fractions (4F 1&2) - Round to the nearest 10, 100 and 1000 (4NPV-3) - Mental partitioning for addition (4NF-3) - Add whole numbers to 1 dp using column addition (4NF-3)
	Spring 1	Spring 2
Maths Concepts	<ul style="list-style-type: none"> - Multiplication tables - Division with known facts - Dividing with remainders - Multiplication and division word problems - Pictograms and bar graphs - Drawing and reading line graphs 	<ul style="list-style-type: none"> - Mixed numbers and improper fractions - Adding and subtracting fractions - Fraction word problems - 24-hour clocks - Converting units of time - Solving problems with time -
	Summer 1	Summer 2
Maths Concepts	<ul style="list-style-type: none"> - Recall my 0-12 timestable facts (throughout the year) (4NF-1 and 4MD-2) - Identify regular and irregular polygons and find their perimeters (4G-2) - Identify angles using degrees as turns - Calculate the area of rectilinear shapes by counting squares - Draw polygons using given coordinates and translate them (4G-1) - Line symmetry in 2D shapes (4G-3) - - 	<ul style="list-style-type: none"> - Recall my 0-12 timestable facts (throughout the year) (4NF-1 and 4MD-2) - Add, subtract and measure blocks of time - Solve a range of problems involving telling the time - Solve simple equations with pictures and letters - Retrieve, interpret and record information from different charts, graphs and tables

Year 5 Overview	Autumn 1	Autumn 2
Maths Concepts	<ul style="list-style-type: none"> - Learning how to read, write and the place value of each digit in a six-digit number (5NPV-2) - Learning how to order and compare numbers up to 1,000,000 - How to divide 1 into 2,4,5 and 10 equal parts (5NPV-4) - Compare and order decimals up to three decimal places (NPV-2&3) - How to read numbers to 3dp and how they can be partitioned (5NPV1,2 and 3) - How to convert between mixed number and improper fractions - How to show a fraction I its simplest form and find equivalent fractions (5F-2) - How to recall and calculate simple equivalent F/D/P 	<ul style="list-style-type: none"> - How to round to the nearest whole number, 10,100,1000 and 10,000 and to one decimal place (5NPV-3) - Learning how to count forwards and backwards through zero in 2,3 5 and 10s - Learning how to interpret negative numbers - Learning how to read Roman Numerals up to 1000 - Learning how to calculate fractions and percentages of amounts - How to use column addition (5NP-2)
	Spring 1	Spring 2
Maths Concepts	<ul style="list-style-type: none"> - Multiples, factors, prime numbers, squares and cubes - Multiplying by powers of 10 - Multiplication methods - Dividing by powers of 10 - Division methods - Word problems using multiplication and division - Reading tables - Reading line graphs 	<ul style="list-style-type: none"> - Adding and subtracting fractions - Multiplying fractions or mixed numbers by whole numbers
	Summer 1	Summer 2
Maths Concepts	<ul style="list-style-type: none"> - How to use the long multiplication method (5MD-3) - How to double and half numbers mentally up to 1,000,000 - How to calculate and solve problems about perimeter (5G-2) - How to calculate and solve problems about area (5G-2) - Learning about the nets of 3D shapes and investigating the volume 	<ul style="list-style-type: none"> - How to use division facts to mentally divide a 3d by a 1d number (5MD-4) - How to use the long division (chunking) method to divide a 4d by a 2d number efficiently (5MD-4) - How to interpret remainders into fractions or quantities (5MD-4) - How to solve multistep problems involving the 4 operations - How to calculate the range - How to use line graphs to solve problems - How to interpret information from a table - (Project work)

Year 6 Overview	Autumn 1	Autumn 2
Maths Concepts	<ul style="list-style-type: none"> - How to read and write numbers up to 10,000,000 - How to compare and order numbers up to 10,000,000 (6NPV-2) - How to reason about the location of any number up to 10 million including fractions in a linear number system (6NPV-3) - Learning how to divide powers of 10 from 1 hundredth to 10 million into 2,4,5 and 10 equal parts (6NPV-4) - How to compare and order decimals and fractions up to 3dp (6NPV-3) - How to simplify, order, compare and find the lowest common denominator (6F-1, 2 and 3) - Common F/D/P equivalents 	<ul style="list-style-type: none"> - How to calculate fraction and percentage of amounts - How to round numbers to the nearest whole and powers of 10 (down to 2dp) (6NPV-3) - How to use column addition and subtraction (including decimals) (6AS/MD1) - How to mentally add and subtract large numbers including rounding, compensating and doubling/halving (6AS/MD1) - How to add and subtract negative numbers - How to interpret negative numbers in context - How to find missing angles within shapes and on a line - How to find the perimeter of complex shapes - How to calculate the area and volume using a formula - Read and write Roman Numerals up to 10,000
	Spring 1	Spring 2
Maths Concepts	<ul style="list-style-type: none"> - Dividing whole numbers and decimals - Multiplying decimals - Converting metric measures - Converting miles and km 	<ul style="list-style-type: none"> - Short and long division and interpret remainders (6MD-1) - How to accurately draw 2D shapes using given dimensions and angles - How to translate and reflect shapes using the 4 quadrants - Learning about ratio, proportion and scaling (various RTP skills) - How to convert between units of time - How to calculate blocks of time - How to convert between different units of measure
	Summer	
Maths Concepts	<ul style="list-style-type: none"> - How to use BODMAS accurately - How to use simple algebraic formulae - How to generate and describe linear number sequences - How to solve a range of missing number and algebra problems - Multi-step problems using the 4 operations 	