



# 'Together we Flourish and Achieve'

# **Our Curriculum**

# Maths

# **Maths Curriculum**

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#### Intent

At Spaxton and Stogursey, we believe that all children should have:

- A secure understand of maths and number.
- A positive and resilient attitude towards mathematics.
- Competence and confidence in mathematic knowledge, concepts and skills.
- An ability to solve problems, to reason, to think logically and to work systematically and accurately.
- A range of learning of learning strategies: working both collaboratively and independently.
- Fluency in mathematics where children can express ideas confidently and talk about the subject using mathematical language.
- An understanding of the importance of mathematics in everyday life.
- Independent learners who take responsibility for their own learning.

This is underpinned by our school curriculum intent which in turn is underpinned by the QET principles.

At Spaxton and Stogursey, we deliver a broad and balanced curriculum to all our pupils. Through our ambitious curriculum offer, that has been carefully designed to ensure it is sequential and progressive through each stage, we believe it allows:

- Holistic Development: It supports the overall development of our children, addressing their academic, social, emotional, and physical needs. This approach ensures that our pupils at Spaxton and Stogursey are well-rounded and prepared for next stage of learning and any other future challenges.
- Engagement and Motivation: A varied curriculum keeps our pupils engaged and motivated by offering a range of subjects and activities. Our broad and balanced curriculum offer helps cater to different interests and learning styles, making education more enjoyable and effective for all.
- 3. **Critical Thinking and Problem-Solving**: Exposure to a wide range of subjects encourages critical thinking and problem-solving skills. Our pupils learn to make connections between different areas of knowledge, enhancing their cognitive abilities.
- 4. **Cultural Awareness and Respect**: Our broad curriculum includes subjects like history, geography, and the arts, which help our pupils understand and appreciate different cultures and perspectives. This fosters respect and empathy for others. This is particularly important due to our village rural location.
- Preparation for Future Learning: Our balanced curriculum provides a strong foundation in core subjects like English and maths while also introducing pupils to other areas of knowledge. This prepares them for more specialised learning in secondary education and beyond
- 6. **Personal Growth and Well-being**: Subjects like physical education, music, and art contribute to pupils' physical and emotional well-being. They provide opportunities for self-expression, creativity, and physical activity, which are crucial for healthy development.

Our school curriculum is bespoke and designed to meet the needs of the children in our school. It is underpinned by the Quantock Education Trust curriculum principles (SMART) which guide the development and review of the curriculum in all schools in the Trust:

- A strong and carefully Sequenced curriculum, so that children and young people's learning progresses in a way that builds knowledge intentionally and cumulatively
- A curriculum that Motivates children and young people so they can value and experience joy in learning whilst developing their own unique voice.
- An Ambitious curriculum, so that children and young people are challenged and empowered
  to think deeply and critically and grapple with complexity, challenge assumptions, question
  accepted authorities and embrace curiosity.
- A curriculum that is Responsive, so that it meets the needs of children and young people in our local community as well as opening doors to the wider world.
- A curriculum that is Transformative, so that children and young people can put their learning to use as active citizens, working for social justice, environmental stewardship and a healthy, equitable world, enabling them to build character and shape their future.

## **Implementation**

At Spaxton and Stogursey, we deliver our mathematics curriculum using a mastery approach. The main difference that stands out with the Mastery approach is that children are taught together to master their own year group's objectives and deepen rather than rush onto the next year's content. All children are capable of learning Maths to a high level. Some children will take longer than others to grasp content and others will grasp content rapidly. This doesn't necessarily make them better Mathematicians. Teachers put in place appropriate adaptations, where necessary, to ensure all achieve.

Mathematics plays an important role in children's lives and in our we want all children to Flourish and achieve together. The rationale behind this policy is that in order for children to progress as Mathematicians, they need to gain a deep understanding of the concepts underpinning Mathematics in order to succeed in the three aims of Fluency, Problem Solving and Reasoning.

We follow the overview from NCETM which is a linear curriculum that advocates a teaching for mastery approach, our curriculum allows the children to develop a deeper understanding before moving on and considers our mixed aged classes. Reception are taught as a discrete group following the mastering number approach. The sequence is well-thought out and the order builds on previous units, encouraging interleaving. The small-steps approach builds on prior learning both from the previous lesson, previous units and previous years. Topics are revisited each year except for year-specific topics. The order of the knowledge to be gained varies per year group. Methods of calculations are taken from our calculation policy.

Due to the size of our school, we have worked with the Boolean Maths Hub to adapt the NCETM curriculum to allow us to teach a 2-year rolling programme in Years 3 and 4 and in Years 5 and 6. Therefore we are teaching the whole class the same objective and by the end of their time in that class, the will have covered all objectives for the 2 year groups.

Fluency, problem solving and reasoning are built into every lesson and tasks reflect this. 'Rapid graspers' get an opportunity in every lesson to build a portfolio of greater depth work, growing in complexity and connections through 'If you finish tasks'.

# **EYFS Curriculum Overview**

# **Mastering Number**

# Reception Overview

Term 1	Term 2	Term 3		
Pupils will build on previous experiences of number from their home and nursery environments, and further develop their subitising and counting skills. They will explore the composition of numbers within 5. They will begin to compare sets of objects and use the language of comparison.	Pupils will continue to develop their subitising and counting skills and explore the composition of numbers within and beyond 5. They will begin to identify when two sets are equal or unequal and connect two equal groups to doubles. They will begin to connect quantities to numerals.	Pupils will consolidate their counting skills, counting to larger numbers and developing a wider range of counting strategies. They will secure knowledge of number facts through varied practice.  Pupils will:		
Pupils will:  identify when a set can be subitised and when counting is needed  subitise different arrangements, both unstructured and structured, including using the Hungarian number frame	continue to develop their subitising skills for numbers within and beyond 5, and increasingly connect quantities to numerals     begin to identify missing parts for numbers within 5	<ul> <li>continue to develop their counting skills, counting larger sets as well as counting actions and sounds</li> <li>explore a range of representations of numbers, including the 10-frame, and see how doubles can be arranged in a 10-frame</li> </ul>		
<ul> <li>make different arrangements of numbers within 5 and talk about what they can see, to develop their conceptual subitising skills</li> <li>spot smaller numbers 'hiding' inside larger numbers</li> </ul>	explore the structure of the numbers 6 and 7 as '5 and a bit' and connect this to finger patterns and the Hungarian number frame      focus on equal and unequal groups when comparing numbers	<ul> <li>compare quantities and numbers, including sets of objects which have different attributes</li> <li>continue to develop a sense of magnitude, e.g. knowing that 8 is quite a lot more than 2, but 4 is only a little bit more than 2</li> </ul>		

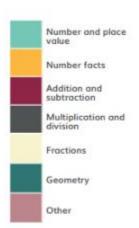
- connect quantities and numbers to finger patterns and explore different ways of representing numbers on their fingers
- hear and join in with the counting sequence, and connect this to the 'staircase' pattern of the counting numbers, seeing that each number is made of one more than the previous number
- develop counting skills and knowledge, including: that the last number in the count tells us 'how many' (cardinality); to be accurate in counting, each thing must be counted once and once only and in any order; the need for 1:1 correspondence; understanding that anything can be counted, including actions and sounds
- · compare sets of objects by matching
- begin to develop the language of 'whole' when talking about objects which have parts

- understand that two equal groups can be called a 'double' and connect this to finger patterns
- sort odd and even numbers according to their 'shape'
- continue to develop their understanding of the counting sequence and link cardinality and ordinality through the 'staircase' pattern
- order numbers and play track games
- join in with verbal counts beyond 20, hearing the repeated pattern within the counting numbers

- begin to generalise about 'one more than' and 'one less than' numbers within 10
- continue to identify when sets can be subitised and when counting is necessary
- develop conceptual subitising skills including when using a rekenrek

#### **Year 1 Maths Overview**

## Year 1 Previous Reception experiences and counting within 100 1NPV-1 Count within 100, forwards and backwards, starting with any number. 1.9 Composition of numbers: 20–100 Comparison of quantities and part-whole relationships 1NPV-1 Count within 100, forwards and backwards, starting with any number. 1NPV-2 Reason about the location of numbers to 20 within the linear number system, including comparing using < > and =. 1.1 Comparison of quantities and measures 1.2 Introducing 'whole' and 'parts': part-part-whole Numbers 0 to 5 1NPV-2 Reason about the location of numbers to 20 within the linear number system, including comparing using < > and = 1AS-1 Compose numbers to 10 from 2 parts, and partition numbers to 10 into parts, including recognising odd and even numbers. 1.3 Composition of numbers: 0-5 Recognise, compose, decompose and manipulate 2D and 3D shapes 1G-1 Recognise common 2D and 3D shapes presented in different orientations, and know that rectangles, triangles, cuboids and pyramids are not always similar to one another 1G-2 Compose 2D and 3D shapes from smaller shapes to match an example, including manipulating shapes to place them in particular orientations. Numbers 0 to 10 1NPV-2 Reason about the location of numbers to 20 within the linear number system, including comparing using < > and =. 1AS-1 Compose numbers to 10 from 2 parts, and partition numbers to 10 into parts, including recognising odd and even numbers. 1.4 Composition of numbers: 6-10 Additive structures 1AS-2 Read, write and interpret equations containing addition (+), subtraction (-) and equals (=) symbols, and relate additive expressions and equations to real-life contexts. 1.5 Additive structures: introduction to aggregation and partitioning 1.6 Additive structures: introduction to augmentation and reduction Addition and subtraction facts within 10 1NF-1 Develop fluency in addition and subtraction facts within 10. 1.7 Addition and subtraction: strategies within 10 Numbers 0 to 20 1NPV-2 Reason about the location of numbers to 20 within the linear number system, including comparing using < > and = 1.10 Composition of numbers: 11-19 Unitising and coin recognition 1NF-2 Count forwards and backwards in multiples of 2, 5 and 10, up to 10 multiples, beginning with any multiple, and count forwards and backwards through the odd numbers. 2.1 Counting, unitising and coins Position and direction This topic is part of the National Curriculum but is not included in the DfE 2020 guidance or the NCETM Mastery PD Materials. Time This topic is part of the National Curriculum but is not included in the DfE 2020 guidance or the NCETM Mastery PD Materials.



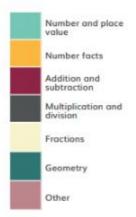
Dark grey references are ready-to-progress criteria from the DfE Guidance 2020

Light grey references are from the NCETM Primary Mastery Professional Development materials

Both are available online

#### **Year 2 Maths Overview**

#### Year 2 Numbers 10 to 100 2NPV-1 Recognise the place value of each digit in two-digit numbers, and compose and decompose two-digit numbers using standard and non-standard partitioning. 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. 1.8 Composition of numbers: multiples of 10 up to 100 1.9 Composition of numbers: 20-100 Calculations within 20 2AS-1 Add and subtract across 10. 2AS-2 Recognise the subtraction structure of 'difference' and answer questions of the form, "How many more...?". 1.11 Addition and subtraction; bridging 10 1.12 Subtraction as difference Fluently add and subtract within 10 2NF-1 Secure fluency in addition and subtraction facts within 10, through continued 1.7 Addition and subtraction: strategies within 10 Addition and subtraction of two-digit numbers (1) 2AS-3 Add and subtract within 100 by applying related one-digit addition and subtraction facts: add and subtract only ones or only tens to/from a two-digit number. 1.13 Addition and subtraction: two-digit and single-digit number 1.14 Addition and subtraction: two-digit numbers and multiples of ten Introduction to multiplication 2MD-1 Recognise repeated addition contexts, representing them with multiplication equations and calculating the product, within the 2, 5 and 10 multiplication tables. 2.2 Structures: multiplication representing equal groups 2.3 Times tables: groups of 2 and commutativity (part 1) 2.4 Times tables: groups of 10 and of 5, and factors of 0 and 1 2.5 Commutativity (part 2), doubling and halving Introduction to division structures 2MD-2 Relate grouping problems where the number of groups is unknown to multiplication equations with a missing factor, and to division equations (quotitive division). 2.6 Structures: quotitive and partitive division Shape 2G–1 Use precise language to describe the properties of 2D and 3D shapes, and compare shapes by reasoning about similarities and differences in properties. Addition and subtraction of two-digit numbers (2) 2AS-4 Add and subtract within 100 by applying related one-digit addition and subtraction facts: add and subtract any 2 two-digit numbers. 1.15 Addition: two-digit and two-digit numbers 1.16 Subtraction: two-digit and two-digit numbers Money This topic is part of the National Curriculum but is not included in the DfE 2020 guidance or the NCETM Mastery Professional Development Materials. 3.0 Guidance on the teaching of fractions in Key Stage 1 Time This topic is part of the National Curriculum but is not included in the DfE 2020 guidance or the NCETM Mastery Professional Development Materials. Position and direction This topic is part of the National Curriculum but is not included in the DfE 2020 guidance or the NCETM Mastery Professional Development Materials. Multiplication and division - doubling, halving, quotitive and partitive division 2.5 Commutativity (part 2), doubling and halving 2.6 Structures: quotitive and partitive division Sense of measure – capacity, volume, mass This topic is part of the National Curriculum but is not included in the DfE 2020 guidance or the NCETM Mastery Professional Development Materials.

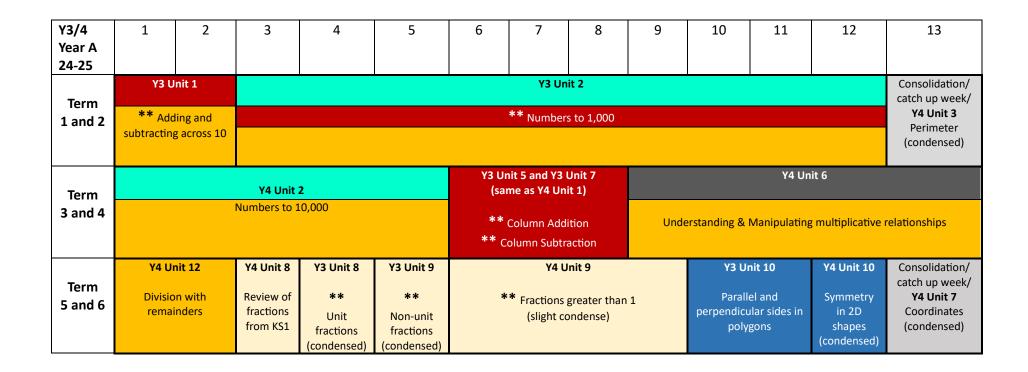


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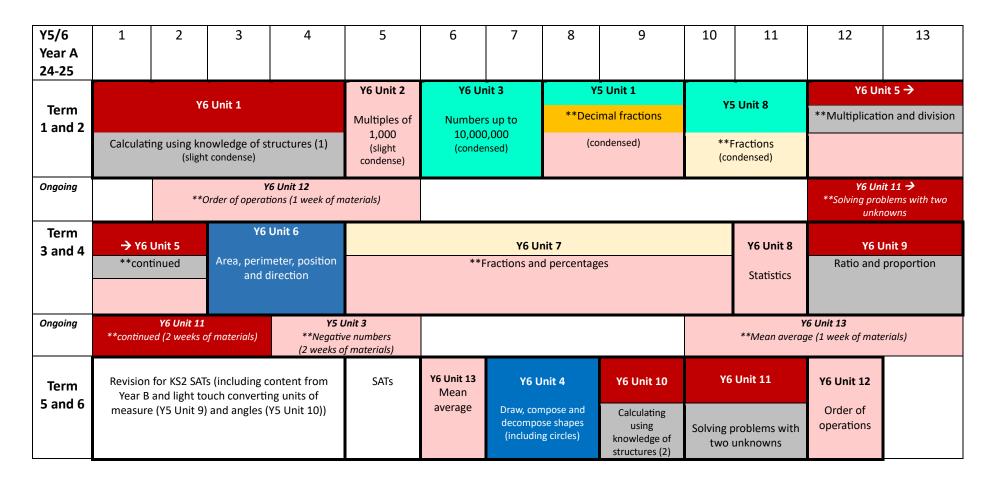
Both are available online

# **Year 3/4 Maths Overview**



Y3/4 Year B	1	2	3	4	5	6	7	8	9	10	11	12	13
25-26													
Term	Y3 U	nit 1	<b>У</b> 3	Unit 2		Y3 Unit 4				nit 5 and Y3 me as Y4 Un		YS	Unit 6
1 and 2		ling and	** Numb	pers to 1,000	Manipulating	the additive rela mental calcul		d securing		Column Add		2 4 8 ti	nes tables →
	Subtracti 1	-	(cond	densed)						Column Subtr		2, 4, 0 til	nes tables 7
_	Y3 Unit 6			Y4 Unit	6				Y3 Unit 8	3		Y3	Unit 9
Term 3 and 4	→ 2, 4, 8 times tables	8 times Understanding & Manipulating multiplicative relationships				*	* Unit fract	tions		** Non-u	nit fractions →		
Term 5 and 6	→ No	nit 9 * n-unit tions	** Fract th	Unit 9 ions greater ian 1 sed 'intro')		Jnit 12 th remainders		Unit 3		Unit 3		<b>4 Unit 7</b> ordinates	Consolidation/ catch up week

# **Year 5/6 Maths Overview**



Y5/6 Year B 25-26	1	2	3	4	5	6	7	8	9	10	11	12	13
Term 1 and 2	Y5 Unit 1 Term **Decimal fractions						Unit 3 ve numbers	Sho	rt multiplica	T5 Unit 4 ution and sho nt condense)	rt division		
Ongoing	y6 Unit 12  **Order of operations (1 week of materials)									**Solving	<b>Unit 11 →</b> problems with two nknowns		
Term 3 and 4	Y5 Unit 8  Y6 Unit 5  **Multiplication and division (slight condense) (condensed)			**Fractions		Y6 Unit 7  Y5 Unit 6  **Fractions and percentages (condensed)  Calculating with decimal fractions			fractions	Area	<b>5 Unit 5</b> and scaling ondensed)		
Ongoing	Y6 Unit 11  **continued (2 weeks of materials)								**		<b>'6 Unit 13</b> ge (1 week of m	naterials)	
Term 5 and 6	Year A	and light to	s (including c uch convertir and angles ('	ng units of	SATs		Y5 Unit 7 multiples ar light condens		<b>Y5 U</b> i Converti			<b>Y5 Unit</b> Angle	

# **Progression**

#### Number - Number and Place Value

		COUN	TING		
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number			count backwards through zero to include negative numbers	interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero	use negative numbers in context, and calculate intervals across zero
count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens given a number, identify one more and one less	count in steps of 2, 3, and 5 from 0, and in tens from any number, forward or backward	count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number	count in multiples of 6, 7, 9, 25 and 1000  find 1000 more or less than a given number	count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000	
		COMPARING	NUMBERS		
use the language of: equal to, more than,	compare and order numbers from 0 up to	compare and order numbers up to 1000	order and compare numbers beyond 1000	read, write, order and compare numbers to	read, write, order and compare numbers up
less than (fewer), most, least	100; use <, > and = signs		compare numbers with the same number of decimal places up to two decimal places (copied from Fractions)	at least 1000000 and determine the value of each digit (appears also in Reading and Writing Numbers)	to 10 000 000 and determine the value of each digit (appears also in Reading and Writing Numbers)
			AND ESTIMATING NUMBE	RS	
identify and represent numbers using objects	identify, represent and estimate numbers using	identify, represent and estimate numbers	identify, represent and estimate numbers		

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and pictorial	different	using different	using different	
representations	representations,	representations	representations	
including the number	including the number			
line	line			

		READING AND WRITIN	NG NUMBERS (including R	oman Numerals)	
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
read and write numbers from 1 to 20 in numerals and words.	read and write numbers to at least 100 in numerals and in words	read and write numbers up to 1000 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 (copied from	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.	read, write, order and compare numbers to at least 1000 000 and determine the value of each digit (appears also in Comparing Numbers) read Roman numerals to 1000 (M) and recognise years written in Roman numerals.	read, write, order and compare numbers up to 10 000 000 and determine the value of each digit (appears also in Understanding Place Value)
		Measurement)	·		
	recognise the place value of each digit in a two-digit number (tens, ones)	recognise the place value of each digit in a three-digit number (hundreds, tens, ones)	recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones)	read, write, order and compare numbers to at least 1000000 and determine the value of each digit (appears also in 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 Reading and Writing Numbers)

	find the effect of dividin	g recognise and use	identify the value of each
	a one- or two-digit	thousandths and relate	digit to three decimal
	number by 10 and 100,	them to tenths,	places and multiply and
	identifying the value of	hundredths and decimal	divide numbers by 10, 100
	the digits in the answer	equivalents	and
	as units, tenths and	(copied from Fractions)	1000 where the answers
	hundredths		are up to three decimal
	(copied from Fractions)		places (copied from
			Fractions)

	ROUNDING									
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6					
			round any number to the nearest 10, 100 or 1 000  round decimals with one decimal place to the nearest whole number (copied from Fractions)	round any number up to 1000 000 to the nearest 10, 100, 1000, 10 000 and 100 000 round decimals with two decimal places to the nearest whole number and to one decimal place	round any whole number to a required degree of accuracy  solve problems which require answers to be rounded to specified degrees of accuracy					
		PROBLEN	/I SOLVING	(copied from Fractions)	(copied from Fractions)					
	use place value and number facts to solve problems	solve number problems and practical problems involving these ideas.	solve number and practical problems that involve all of the above and with increasingly large positive numbers	solve number problems and practical problems that involve all of the above	solve number and practical problems that involve all of the above					

Number - Addition and Subtraction

		NUMBE	R BONDS		
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
represent and use	recall and use addition				
number bonds and	and subtraction facts to				
related subtraction	20 fluently, and derive				
facts within 20	and use related facts up				
	to 100				
			LCULATION		
add and subtract one-	add and subtract	add and subtract		add and subtract	perform mental
digit and two-digit	numbers using concrete	numbers mentally,		numbers mentally with	calculations, including
numbers to 20,	objects, pictorial	including:		increasingly large	with mixed operations
including zero	representations, and	* a three-digit		numbers	and large numbers
	mentally, including:	number and ones			
	* a two-digit number	* a three-digit			
	and ones	number and tens			
	* a two-digit number	* a three-digit			
	and tens	number and			
	* two two-digit	hundreds			
	numbers				
	* adding three one-				
	digit numbers				
read, write and	show that addition of				use their knowledge of
interpret	two numbers can be				the order of operations
mathematical	done in any order				to carry out calculations
statements involving	(commutative) and				involving the four
addition (+),	subtraction of one				operations
subtraction (-) and	number from another				
equals (=) signs	cannot				
(appears also in Written					
Methods)					

### WRITTEN METHODS

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
read, write and		add and subtract	add and subtract	add and subtract whole	
interpret		numbers with up to	numbers with up to 4	numbers with more	
mathematical		three digits, using	digits using the formal	than 4 digits, including	
statements involving		formal written	written methods of	using formal written	
addition (+),		methods of columnar	columnar addition and	methods (columnar	
subtraction (-) and		addition and	subtraction where	addition and	
equals (=) signs		subtraction	appropriate	subtraction)	
(appears also in Mental					
Calculation)					
	INVER	SE OPERATIONS, ESTIMA	ATING AND CHECKING AN	ISWERS	
	recognise and use the	estimate the answer	estimate and use	use rounding to check	use estimation to check
	inverse relationship	to a calculation and	inverse operations to	answers to calculations	answers to calculations
	between addition and	use inverse	check answers to a	and determine, in the	and determine, in the
	subtraction and use this	operations to check	calculation	context of a problem,	context of a problem,
	to check calculations	answers		levels of accuracy	levels of accuracy.
	and solve missing				
	number problems.				

	PROBLEM SOLVING								
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6				
solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as $7 = \Box - 9$	solve problems with addition and subtraction:  * using concrete objects and pictorial representations, including those involving numbers, quantities and measures  * applying their increasing knowledge	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 addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why				

of mental and written methods		
solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change		Solve problems involving addition, subtraction, multiplication and division
(copied from Measurement)		UIVISIUII

# Number – Multiplication and Division

	MULTIPLICATION & DIVISION FACTS									
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6					
count in multiples of twos, fives and tens (copied from Number and Place Value)	count in steps of 2, 3, and 5 from 0, and in tens from any number, forward or backward (copied from Number and Place Value)	count from 0 in multiples of 4, 8, 50 and 100 (copied from Number and Place Value)	count in multiples of 6, 7, 9, 25 and 1 000 (copied from Number and Place Value)	count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000 (copied from Number and Place Value)						
	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							

		MENTAL C	CALCULATION				
	r r t i r	write and calculate mathematical statements multiplication and division using the multiplication tables that they know, ncluding for two-digit numbers times one-digit numbers, using mental an progressing to formal writ methods (appears also in Written Methods)	facts to multip divide mentall including: multiplying by 1; dividing by 2 d multiplying to	rived ly and y, 0 and 1; gether	multiply and divide numbers mentally drawing upon known facts		perform mental calculations, including with mixed operations and large numbers
	show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot	recognise and use factor pairs and commutativity in mental calculation (appears also in Properties of Numbers)		d in tions	whole numbers and those involving		associate a fraction with division and calculate decimal fraction equivalents (e.g. 0.375) for a simple fraction (e.g. <sup>3</sup> / <sub>8</sub> ) (copied from Fractions)
			CALCULATION				
Year 1	rear 2 calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (x), division (÷) and equals (=) signs	year 3 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	Year 4 multiply two-digit and three-digit numbers by a one- digit number using formal written layout	to 4 control or two using writted including multi-	Year 5 ply numbers up digits by a one- ro-digit number (a formal en method, ding long plication for digit numbers	to 4 di numbe writte	Year 6  ly multi-digit numbers up gits by a two-digit whole er using the formal n method of long lication

		mental and progressing to formal written methods (appears also in Mental Methods)		divide numbers up to 4 digits by a one- digit number using the formal written method of short division and interpret remainders appropriately for th context	a two-or the form short di approprio divide riby a two using the method interpronumber or by rofor the use writt cases with two decimals and the two decimals and the short appropriate the short appropriate the two decimals and the short appropriate the short appro	numbers up to 4-digits by ligit whole number using mal written method of ivision where riate for the context numbers up to 4 digits o-digit whole number ne formal written d of long division, and et remainders as whole r remainders, fractions, bunding, as appropriate context ten division methods in there the answer has up to imal places (copied from s (including decimals))
Vocad		IMBERS: MULTIPLES, FAC				Vocas
Year 1	Year 2	Year 3	recognise and use factor pairs and commutativity in mental calculations (repeated)	identify multi factors, include finding all factors of a number, common fact numbers. know and use vocabulary of	ples and ding tor pairs and ors of two	identify common factors, common multiples and prime numbers  use common factors to simplify fractions; use

	an pri esi nu pri	umbers, prime factors and composite (non- rime) numbers stablish whether a umber up to 100 is rime and recall prime umbers up to 19	common multiples to express fractions in the same denomination (copied from Fractions)
	sqi cu no	ecognise and use quare numbers and ube numbers, and the otation for squared ) and cubed ( <sup>3</sup> )	calculate, estimate and compare volume of cubes and cuboids using standard units, including centimetre cubed (cm³) and cubic metres (m³), and extending to other units such as mm³ and km³ (copied from Measures)

	ORDER OF OPERATIONS								
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6				
					use their knowledge of the order of operations to carry out calculations involving the four operations				
	INVERSE OPERATIONS, ESTIMATING AND CHECKING ANSWERS								

	estimate the answer to a calculation and use inverse operations to check answers (copied from Addition and Subtraction)	estimate and use inverse operations to check answers to a calculation (copied from Addition and Subtraction)		use estimation to check answers to calculations and determine, in the context of a problem, levels of accuracy
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	PROBLEM SOLVING								
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6				
solve one-step	solve problems	solve problems,	solve problems	solve problems	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 addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign solve problems involving multiplication	solve problems involving addition, subtraction, multiplication and division  solve problems involving similar shapes where the				
				and division, including scaling by simple fractions and problems involving simple rates	scale factor is known or can be found (copied from Ratio and Proportion)				

# Number – Fractions (including decimals and percentages)

	COUNTING IN FRACTIONAL STEPS							
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6			
	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)	count up and down in tenths	count up and down in hundredths					
		RECOGNISIN	G FRACTIONS					
recognise, find and name a half as one of two equal parts of an object, shape or quantity	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	recognise, find and write fractions of a discrete set of objects: unit fractions and nonunit 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 that hundredths arise when dividing an object by one hundred and dividing tenths by ten	recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents (appears also in Equivalence)				
recognise, find and		recognise and use						
name a quarter as one		fractions as numbers:						
of four equal parts of an object, shape or		unit fractions and non- unit fractions with						
quantity		small denominators						
		COMPARING	FRACTIONS					
		compare and order unit fractions, and fractions		compare and order fractions whose denominators are all	compare and order fractions, including fractions >1			

	with the same	multiples of the same	
	denominators	number	

			COMPARING DECIMA	ALS	
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
			compare numbers with the same number of decimal places up to two decimal places	read, write, order and compare numbers with up to three decimal places	identify the value of each digit in numbers given to three decimal places
			ROUNDING INCLUDING DE	ECIMALS	
			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 (IN	ICLUDING FRACTIONS, DECI	MALS AND PERCENTAGES)	
	write simple fractions e.g. $\frac{1}{2}$ of 6 = 3 and recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$ .	recognise and show, using diagrams, equivalent fractions with small denominators	recognise and show, using diagrams, families of common equivalent fractions	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
			recognise and write decimal equivalents of any number of tenths or hundredths	read and write decimal numbers as fractions (e.g. $0.71 = \frac{71}{100}$ )  recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents	associate a fraction with division and calculate decimal fraction equivalents (e.g. 0.375) for a simple fraction (e.g. <sup>3</sup> / <sub>8</sub> )

		decimal equivalents to and u relate hunding a fraction		and understand relates to "num hundred", and a fraction with a decimal fracti	ber of parts per write percentages as denominator 100 as	recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.	
Year 1	Year 2	ADDITION AND SUBTR	ACTION C	Year 4	Year 5	Year 6	
real 1	real 2	add and subtract fractions with the same denominator within one whole (e.g. $\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$ )	fractions	subtract s with the enominator	add and subtract fractions with the same denominator and multiples of the same number recognise mixed numbers and imprope fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number (e.g. $^2/_{5}$ + $^4/_{5}$ = $^6/_{5}$ = $1^1/_{5}$ )	add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions	
		MULTIPLICATION AND I	DIVISION	OF FRACTIONS			
					multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagran		

					multiply one-digit numbers with up to two decimal places by whole numbers divide proper fractions by whole numbers (e.g. $\frac{1}{3} \div 2 = \frac{1}{6}$ )
			DIVISION OF DECIMALS		
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
			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		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. <sup>3</sup> / <sub>8</sub> ) use written division methods in cases where the answer has up to two decimal places
		PROBLEM	SOLVING		
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
		solve problems that involve all of the above	solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number solve simple measure	solve problems involving numbers up to three decimal places  solve problems which	
			and money problems involving fractions and decimals to two decimal places.	require knowing percentage and decimal equivalents of $\frac{1}{2}, \frac{1}{4}, \frac{1}{5}, \frac{2}{5}, \frac{4}{5}$ and those with a denominator of a multiple of 10 or 25.	

# **Ratio and Proportion**

Statements only app	 miceted to previous learning, p	articularly fractions and multiplication and division
		Year 6
		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.

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**COMPARING AND ESTIMATING** 

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
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]	compare and order lengths, mass, volume/capacity and record the results using >, < and =		estimate, compare and calculate different measures, including money in pounds and pence (also included in Measuring)	calculate and compare the area of squares and rectangles including using standard units, square centimetres (cm²) and square metres (m²) and estimate the area of irregular shapes (also included in measuring) estimate volume (e.g. using 1 cm³ blocks to build cubes and cuboids) and capacity (e.g. using water)	calculate, estimate and compare volume of cubes and cuboids using standard units, including centimetre cubed (cm³) and cubic metres (m³), and extending to other units such as mm³ and km³.
sequence events in chronological order using language [e.g. before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening]	compare and sequence intervals of time	compare durations of events, for example to calculate the time taken by particular events or tasks			
		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 (appears also in Telling the Time)			
			d CALCULATING		
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
measure and begin to record the following:  * lengths and heights  * mass/weight  * capacity and volume  * time (hours, minutes, seconds)	choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature (°C); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels	measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (I/mI)	estimate, compare and calculate different measures, including money in pounds and pence (appears also in Comparing)	use all four operations to solve problems involving measure (e.g. length, mass, volume, money) using decimal notation including scaling.	solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate (appears also in Converting)
		measure the <b>perimeter</b> of simple 2-D shapes	measure and calculate the <b>perimeter</b> of a rectilinear figure (including squares) in centimetres and metres	measure and calculate the <b>perimeter</b> of composite rectilinear shapes in centimetres and metres	recognise that shapes with the same areas can have different perimeters and vice versa

MEASURING and CALCULATING						
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	

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	add and subtract amounts of <b>money</b> to give change, using both £ and p in practical contexts			
	solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change				
			find the area of rectilinear shapes by counting squares	calculate and compare the area of squares and rectangles including using standard units, square centimetres (cm²) and square metres (m²) and estimate the area of irregular shapes  recognise and use square numbers and cube numbers, and the	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 [e.g. mm³ and km³].

		TELLING		notation for squared (²) and cubed (³) (copied from Multiplication and Division)	recognise when it is possible to use formulae for area and volume of shapes
Voor 1	Voor 2		THE TIME	Year 5	Year 6
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
tell the time to the	tell and write the time	tell and write the time	read, write and		
hour and half past the	to five minutes,	from an analogue	convert time between		
hour and draw the	including quarter	clock, including using	analogue and digital 12		
hands on a clock face	past/to the hour and	Roman numerals from	and 24-hour clocks		
to show these times.	draw the hands on a	I to XII, and 12-hour	(appears also in Converting)		
	clock face to show	and 24-hour clocks	Converting)		
	these times.				
recognise and use	know the number of	estimate and read			
language relating to	minutes in an hour and	time with increasing			
dates, including days of	the number of hours in	accuracy to the nearest			
the week, weeks,	a day.	minute; record and			
months and years	(appears also in Converting)	compare time in terms			
	Converting)	of seconds, minutes,			
		hours and o'clock; use			
		vocabulary such as			
		a.m./p.m., morning,			
		afternoon, noon and			
		midnight			
		(appears also in Comparing and			
		Estimating)			
		Lotiniating)	solve problems	solve problems	
			involving converting	involving converting	
			from hours to minutes;	between units of time	
			minutes to seconds;	between anits of time	
			minutes to seconds,		

	years to months;	
	weeks to days	
	(appears also in	
	Converting)	

		CONV	ERTING		
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	know the number of minutes in an hour and the number of hours in a day. (appears also in Telling the Time)	know the number of seconds in a minute and the number of days in each month, year and leap year	convert between different units of measure (e.g. kilometre to metre; hour to minute)	convert between different units of metric measure (e.g. kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre)	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 notatio to up to three decimal places
			read, write and convert time between analogue and digital 12 and 24-hour clocks (appears also in Converting)	solve problems involving converting between units of time	solve problems involving the calculation and conversion of units or measure, using decimal notation up t three decimal places where appropriate (appears also in Measuring and Calculating)

solve problems involving converting from hours to minutes, minutes to seconds; years to months; weeks to days	understand and use equivalences between metric units and common imperial units such as inches, pounds and pints	convert between miles and kilometres
weeks to days (appears also in Telling	and pints	
the Time)		

# **Geometry – Properties of Shape**

IDENTIFYING SHAPES AND THIER PROPERTIES							
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6		
recognise and name common 2-D and 3-D shapes, including:  * 2-D shapes [e.g. rectangles (including squares), circles and	identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line		identify lines of symmetry in 2-D shapes presented in different orientations	identify 3-D shapes, including cubes and other cuboids, from 2-D representations	recognise, describe and build simple 3-D shapes, including making nets (appears also in Drawing and Constructing)		
triangles]  * 3-D shapes [e.g. cuboids (including cubes), pyramids and spheres].	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				illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius		

	and a triangle on a pyramid]				
		DRAWING A	AND CONSTRUCTING		
		draw 2-D shapes and make 3-D shapes usin modelling materials;	ng symmetric figure v respect to a specifi	vith measure them in	draw 2-D shapes using given dimensions and angles
		recognise 3-D shapes in different orientations and describe them	line of symmetry		recognise, describe and build simple 3-D shapes, including making nets (appears also in Identifying Shapes and Their Properties)
		COMPARIN	G AND CLASSIFYING		
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
com 3-D	npare and sort nmon 2-D and shapes and ryday objects		compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes	use the properties of rectangles to deduce related facts and find missing lengths and angles  distinguish between regular and irregular polygons based on reasoning about equal sides and angles	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 as a property of shape or a description of a turn		know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles	
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 acute and obtuse angles and compare and order angles up to two right angles by size	identify:  * angles at a point and one whole turn (total 360°)  * angles at a point on a straight line and ½ a turn (total 180°)  * other multiples of 90°	recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles
identify horizontal and vertical lines and pairs of perpendicular and parallel lines			

## **Geometry – Position, Direction and Movement**

POSITION, DIRECTION AND MOVEMENT							
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6		
describe position,	use mathematical		describe positions on a	identify, describe and	describe positions on		
direction and	vocabulary to describe		2-D grid as coordinates	represent the position	the full coordinate grid		
movement, including	position, direction and		in the first quadrant	of a shape following a	(all four quadrants)		
	movement including			reflection or			

half, quarter and three- quarter turns.	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)		describe movements between positions as translations of a given unit to the left/right and up/down  plot specified points and draw sides to	translation, using the appropriate language, and know that the shape has not changed	draw and translate simple shapes on the coordinate plane, and reflect them in the axes.
			complete a given polygon		
		РАТТ	TERN		
	order and arrange combinations of mathematical objects in patterns and sequences				

#### Statistics

	INTERPRETING, CONSTRUCTING AND PRESENTING DATA								
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6				
	interpret and construct simple pictograms, tally charts, block diagrams and simple tables	interpret and present data using bar charts, pictograms and tables	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	interpret and construct pie charts and line graphs and use these to 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				
	SOLVING	PROBLEMS		
	solve one-step and two-step questions [e.g. 'How many more?' and 'How many fewer?'] using information presented in scaled bar charts and pictograms and tables.	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	calculate and interpret the mean as an average

# Algebra

	EQUATIONS EQUATIONS							
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6			
solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as $7 = \Box - 9$ (copied from Addition and	recognise and use the inverse relationship between addition and subtraction and use this to check calculations and missing number problems.  (copied from Addition and Subtraction)	solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction. (copied from Addition and Subtraction)		use the properties of rectangles to deduce related facts and find missing lengths and angles (copied from Geometry: Properties of Shapes)	express missing number problems algebraically			
Subtraction)		solve problems, including missing number problems, involving multiplication and division, including integer scaling (copied from						

		Multiplication and Division)		
	recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100 (copied from Addition and Subtraction)			find pairs of numbers that satisfy number sentences involving two unknowns
represent and use number bonds and related subtraction facts within 20 (copied from Addition and Subtraction)				enumerate all possibilities of combinations of two variables

## **Impact and Assessment**

Impact of small steps are assessed during and after each lesson using a variety of AfL techniques. This allows teachers and TAs to identify individual children who are in need to additional support/in the moment interventions to ensure they keep up with the mastery approach.

Teachers formally assess the knowledge gained through Maths lessons, 3 times a year. These are entered into our whole school tracking system, Arbor.

Teachers assess through practice quizzes, tables tests, end of unit assessments and full standardised tests (GL PTMs) twice yearly (February and June).

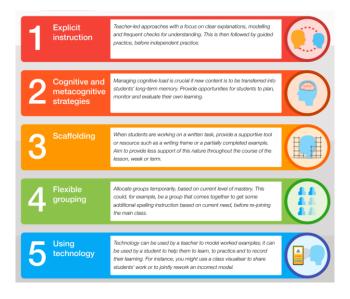
Children's progress and attainment is investigated by Senior Leaders and Trust staff at Pupil Progress Meetings.

# **Inclusion**

At Spaxton and Stogursey we believe that **All** leaders are leaders of SEND, and as such is it our responsibility to ensure an inclusive approach to promote the wellbeing and academic progress of **all** our children in whole curriculum. By removing barriers to learning and supporting the growth of the whole child we are helping **all** to succeed.

In the Trust, we have adopted an evidence-based approach to supporting **all** of our children as we believe what is good for all can be vital for some.

We use the EEF 'Five a day' principles to support our repertoire of teaching strategies daily in response to individual needs.



These work in conjunction with the work we have been doing on Retrieval with Kate Jones and Rosenshine's Principles of instruction such as small step learning, modelled examples, independent practice.

