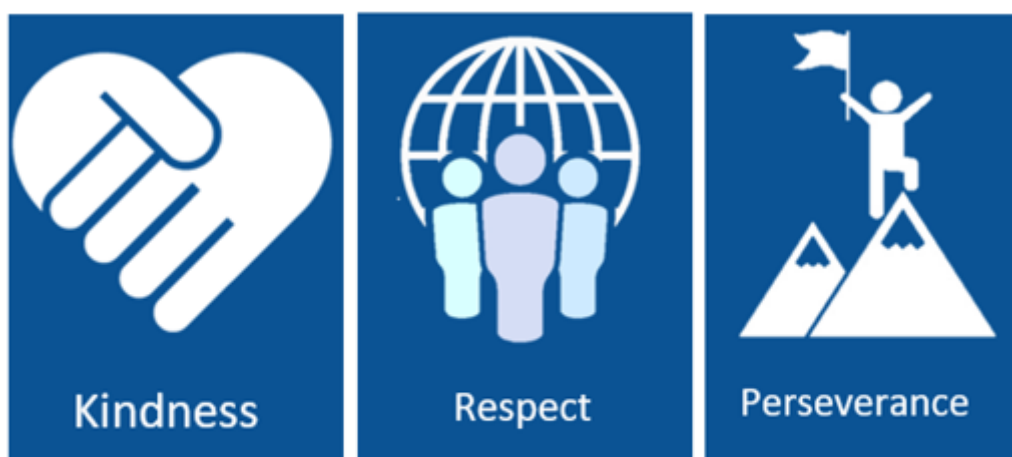


Ditchling (St. Margaret's) CE Primary and Nursery School

Mathematics Policy

2024



'Living life in all its fullness' John 10:10

Version	Reviewed by	Approved by	Date Approved	Next Review Date
I	Ditchling developed Policy	Head/FGB	October 2024	October 2025

Signed: Chair of Governors



Signed: _Headteacher



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1. Curriculum Statement

Intent

The 2014 National Curriculum for Maths, and Early Years Foundation Stage Profile 2023/24, aims to ensure that all children:

- Become fluent in the fundamentals of Mathematics
- Are able to reason mathematically
- Can solve problems by applying their Mathematics

At Ditchling, these skills are embedded within Maths lessons and developed consistently over time. We are committed to ensuring that children are able to recognise the importance of Maths in the wider world, and that they are also able to use their mathematical skills and knowledge confidently in their lives in a range of different contexts. We want all children to enjoy Mathematics and to experience success in the subject, with the ability to reason mathematically. We are committed to developing children's curiosity about the subject, as well as an appreciation of the beauty and power of Mathematics.

Our curriculum is intended to enable all children to successfully achieve the endpoints as stated in the 2014 National Curriculum for Maths:

<https://www.gov.uk/government/publications/national-curriculum-in-england-mathematics-programmes-of-study/national-curriculum-in-england-mathematics-programmes-of-study>

and Early Years Foundation Stage Profile 2023/24:

https://assets.publishing.service.gov.uk/media/65253bc12548ca000dddf050/EYFSP_2024_handbook.pdf

Our Nursery uses the Early Years Development Matters Statements for Mathematics as the basis for their curriculum.

Implementation

The content and principles underpinning the 2014 Mathematics curriculum and the Maths curriculum at Ditchling reflect those found in high-performing education systems internationally, particularly those of east and south-east Asian countries such as Singapore, Japan, South Korea and China. The following principles and features characterise this 'Mastery' approach and convey how our curriculum is implemented:

- Teachers reinforce an expectation that all children are capable of achieving high standards in Mathematics.
- The large majority of children progress through the curriculum content at the same pace; significant time is spent developing deep knowledge of the key ideas

that are needed to underpin future learning. This ensures that all can master concepts before moving to the next part of the curriculum sequence, allowing no pupil to be left behind.

- The structure and connections within the Mathematics are emphasised, so that pupils develop deep learning that can be sustained.
- Lesson design identifies: the new Mathematics that is to be taught; concrete, pictorial and abstract representations of this; the key points including specific vocabulary; the difficult points, common misconceptions and errors; real-life application/reasoning; a carefully sequenced journey through the learning encouraging fluency and including conceptual and procedural variation, making explicit any connections with previous learning. In a typical lesson, pupils sit facing the teacher and the teacher leads back and forth interaction, including questioning, short tasks, explanation, demonstration, and discussion.
- Practice and consolidation play a central role. Carefully designed variation within this builds fluency and understanding of underlying mathematical concepts.
- Teachers use precise questioning in class to test conceptual and procedural knowledge and assess children regularly to identify those requiring intervention, so that all children keep up.
- Children's explanations and their proficiency in articulating mathematical reasoning, with the precise use of mathematical vocabulary, are supported through the use of stem sentences and generalisations provided by the teacher. These help the children to make connections and expose the structure of the maths.

Stem sentence example:

If I divide by _____, the greatest denominator I can have is _____.

Generalisation example:

The length of one side of any square can be found by dividing its perimeter by 4.

Key fluency facts, such as multiplication tables and addition facts within 10, are learnt to automaticity to avoid cognitive overload in the working memory and enable pupils to focus on new concepts. To ensure whole consistency and progression, the school uses the nationally recognised NCETM (National Centre for the Excellence of Teaching in Maths) materials, supplemented by White Rose and Oak Academy.

Fluency is explicitly taught in Key Stage 1 lessons. **It is revisited in Key Stage 2 in fluency sessions twice a week – these take place in addition to the daily Maths lesson.** These facts are taught in the sequence shown on the Number Sense grid below. Similarly, times tables are explicitly taught in Maths lessons up to Year 4. Additional times tables lessons may also be taught in Upper Key Stage 2. **Chanting of times tables is planned from Year 2 upwards. These sessions take place three times a week.**

The NCETM curriculum is a cumulative curriculum (see the 'S' plan later in this document), so that once a topic is covered, it is met many times again in other contexts. For example, place value is revisited in addition and subtraction and multiplication and division. The curriculum recognises the importance of children's conceptual understanding of number. It is therefore designed to ensure that time is invested in reinforcing this to build competency. Lessons are planned to provide plenty of opportunities for reasoning and problem-solving elements. When introduced to a new concept, children have the opportunity to use concrete objects and manipulatives to help them understand what they are doing. Alongside this, children are encouraged to use pictorial representations. These representations can then be used to help reason and solve problems. Both concrete and pictorial representations support children's understanding of abstract methods. Mathematical topics are taught in blocks, to enable the achievement of 'mastery' over time. These teaching blocks are broken down into smaller steps, to help children understand concepts better. This approach means that children do not cover too many concepts at once which can lead to cognitive overload. "Children's chances of success are maximised if they develop deep and lasting understanding of mathematical procedures and concepts." (NCETM website)

Each lesson phase provides the means for children to achieve greater depth, with children who are quick to grasp new content, being offered rich and sophisticated problems, 'Solve its' followed by 'Dive Deeper' and 'Dong Nao Jins' within the lesson as appropriate. We give 'rapid graspers' the opportunity to take part in 'Pathways' which the teachers ensure are available for those children who can master a quicker pathway through their learning in order to take part in the more challenging questions more quickly. For some children, there is the opportunity to take part in our bespoke Ditchling Challenge Booklets, offering a rich and broad set of activities linked to the learning. We are part of the Sussex Maths Hub and continue leading on new initiatives and furthering our staff CPD to ensure we offer an excellent curriculum.

In all classes there are children of differing mathematical ability, including Gifted and Talented and SEND children. We recognise this fact and provide suitable learning opportunities for all children by using a range of scaffolding strategies to ensure all children are able to understand the new learning.

This must include the use of:

- Appropriate resources including 'help sheets'
- Adult support
- Working wall resources

'Dive Deeper' lessons are also taught at least three times a year (in Terms 1, 3 and 5) to give children the opportunity to consolidate their learning over the previous two terms. The children may present their work as a double-page spread.

In addition, problem-solving lessons are taught at least once every term. These are taught using the four stages of the problem-solving process:

Stage 1: Getting started

Stage 2: Working on the problem

Stage 3: Digging deeper

Stage 4: Reflecting

(Teachers should refer to the NRICH website for further details:

<https://nrich.maths.org/10865>)

By explicitly drawing children's attention to these four stages, and by spending time on them in turn, we can help children become more confident problem-solvers. Once they have got going and are working on the problem (stage 2), children should be taught to make use of these problem-solving skills:

Trial and improvement

Working systematically

Pattern-spotting

Working backwards

Reasoning logically

Visualising

Conjecturing

(The first two in this list are particularly important.)

As learners progress towards a solution, they may take the mathematics further (stage 3) and two more problem-solving skills become important:

Generalising

Proving

Having reached a solution, stage 4 of the process should then involve children explaining their findings and reflecting on different methods used.

(Resources from the NRICH website should be used to teach these lessons:

<https://nrich.maths.org/11082>)

“Mastery of facts, procedures and concepts needs time; time to explore the concept in details and time to allow for sufficient practice to develop fluency” and “one set of mathematical concepts and big ideas for all. All pupils need access to these concepts and ideas and to the rich connections between them.” (Pages 5 and 6) NCETM, Teaching for Mastery.

Home learning in Maths is based on:

- My Maths (an online platform through which weekly tasks are set for children linked to their learning in class)

- our Mount Titan Times Tables Scheme which is a progressive system for children to learn, and develop fluency in, their times tables and associated facts. Times tables are tested weekly in class from Year 2 upwards. If children pass their current stage (18 out of 20, 37 out of 40, or 57 out of 60 tables facts recalled in 4 minutes, depending on ability) then they move on to the next stage until they reach 'The Summit'.

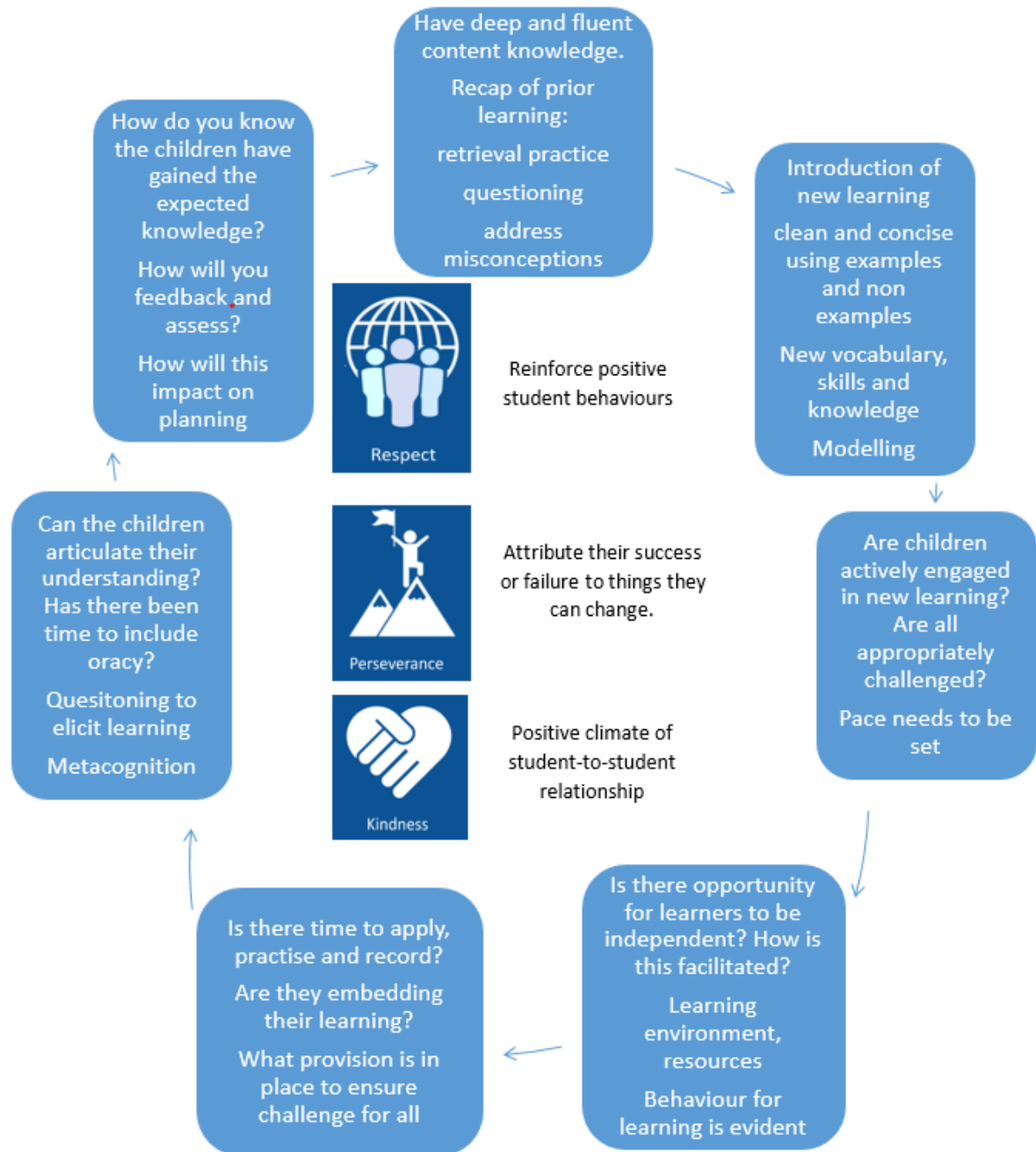
2. Teaching and Learning

As part of the introduction to each new Maths topic, teachers review what the children know already and identify what children would like to learn, to inform the programme of study so that it takes account of children's interests. A working wall will be used to support and celebrate learning throughout each unit of work, and this will also be used to support the acquisition of key knowledge and the accurate use of key vocabulary.

Lessons are planned to ensure that key knowledge is developed over time over the course of each Maths block and in the correct sequence. Key knowledge is reviewed by the children and rigorously checked and consolidated by the teacher at the end of each unit of work as part of the school's assessment of Maths. Lessons within each unit are also planned to ensure the systematic development of the key identified skills across the school.

Teaching and Learning at Ditchling

Based on the Great Teaching Toolkit



3. Assessment

Children's existing knowledge of the topic and the key related knowledge from previous year groups, is checked at the beginning of each unit.

Assessment for learning is continuous throughout the planning, teaching and learning cycle. Assessment is supported by use of the following strategies:

- Observing children at work, individually, in pairs, in a group and in class during whole class teaching.
- Using differentiated, open-ended questions that require children to explain and unpick their understanding.
- Providing effective feedback, to which recognises successful aspects of the children's work, as well as informing subsequent dialogue to address errors and misconceptions.
- Book moderation and monitoring of outcomes of work, to evaluate the range and balance of work and to ensure that tasks meet the needs of different learners (with the acquisition of the pre-identified key knowledge of each topic being evidenced through the outcomes).
- Child and teacher review of both the agreed success criteria at the end of each lesson and the key knowledge at the end each unit, to inform focused consolidation where this is necessary.

There is a strong focus on developing the quality, presentation and content of children's written work across all subjects through our 'Beautiful books' standards. The standard of children's writing is expected to be the same high standard across all subjects – teachers marking will address inaccuracies (such as, for example, inconsistencies in the use of capital letters and punctuation). It will also prompt when handwriting and grammar needs improvement, indicating an identified target and providing a suitable model where appropriate.

Although there will not always be a recorded outcome in children's books, task will be planned that provide plenty of opportunity for children to demonstrate the application of the key knowledge, skills and vocabulary for the lesson.

4. Planning and Resources

Lesson slides are designed to be accessible to all children, as well as to avoid cognitive overload. Lesson slides are used by the teacher to support the teaching, as well as to convey key information and instruction to the children. Teachers devise lesson slides according to what is stated on the progression map for Maths, according to the term and year group.

Teachers can source from a range of recommended lesson resources. Sourced resources for lesson slides might include imagery and ideas from slides from other schemes. However, these are not used in their entirety, to ensure a structured and consistent approach that is in line with the school's bespoke curriculum mapping. The key vocabulary for each topic is mapped and shared with the children using Widgeit. Our classroom displays present this vocabulary for Maths.

The Maths curriculum is designed to ensure that all pupils have a high quality, coherent and progressive experience of the subject. The school's Maths knowledge and skills mapping is informed by NCETM materials.

When planning, teachers ensure that teaching and learning activities provide a suitable level of challenge for all learners, with appropriate task adaptation where necessary. Lesson slides and resources are saved in the schools shared planning drive as a central resource. Not all lessons will be planned to have a written outcome, but the lesson slides of lessons without a recorded outcome will indicate the key knowledge and skills covered and how these were taught, including what the children did.

Accompanying artefacts are maintained and replenished by the subject leader. The topic boxes are in a separate room and are easily accessible to teachers, along with a wide range of books to support and enhance teaching.

5. Organisation

The DfE Mathematics Guidance 2020 outlines the key knowledge for each unit and how these progress throughout the programme of study:

Ready-to-progress criteria: year 1 to year 6

The table below is a summary of the ready-to-progress criteria for all year groups.

Strand	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
NPV	1NPV-1 Count within 100, forwards and backwards, starting with any number.		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 1,000 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 of 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 10, 100, 1,000, 1 tenth, 1 hundredth or 1 thousandth times the size (multiply and divide by 10, 100 and 1,000).
		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.	3NPV-2 Recognise the place value of each digit in three-digit numbers, and compose and decompose three-digit numbers using standard and non-standard partitioning.	4NPV-2 Recognise the place value of each digit in four-digit numbers, and compose and decompose four-digit numbers using standard and non-standard partitioning.	5NPV-2 Recognise the place value of each digit in numbers with up to 2 decimal places, and compose and decompose numbers with up to 2 decimal places using standard and non-standard partitioning.	6NPV-2 Recognise the place value of each digit in numbers up to 10 million, including decimal fractions, and compose and decompose numbers up to 10 million using standard and non-standard partitioning.
	1NPV-2 Reason about the location of numbers to 20 within the linear number system, including comparing using < > and =	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-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 the linear number system, including identifying the previous and next multiple of 1,000 and 100, and rounding to the nearest of each.	5NPV-3 Reason about the location of any number with up to 2 decimal 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, and round numbers, as appropriate, including in contexts.
	→	→	→	→	→	

Strand	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
NPV			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 10 equal parts.	4NPV-4 Divide 1,000 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in multiples of 1,000 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 into 2, 4, 5 and 10 equal parts.
			→	→	5NPV-5 Convert between units of measure, including using common decimals and fractions.	
NF	1NF-1 Develop fluency in addition and subtraction facts within 10.	2NF-1 Secure fluency in addition and subtraction facts within 10, through continued practice.	3NF-1 Secure fluency in addition and subtraction facts that bridge 10, through continued practice.			
	→	→				
	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.		3NF-2 Recall multiplication facts, and 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.	4NF-1 Recall multiplication and division facts up to 12×12 , and recognise products in multiplication tables as multiples of the corresponding number.	5NF-1 Secure fluency in multiplication table facts, and corresponding division facts, through continued practice.	
	→		→	→		
				4NF-2 Solve division problems, with two-digit dividends and one-digit divisors, that involve remainders, and interpret remainders appropriately according to the context.		
			3NF-3 Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 10).	4NF-3 Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 100)	5NF-2 Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 1 tenth or 1 hundredth).	
			→	→		

Strand	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
AS	1AS-1 Compose numbers to 10 from 2 parts, and partition numbers to 10 into parts, including recognising odd and even numbers.	2AS-1 Add and subtract across 10.	3AS-1 Calculate complements to 100.			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).
	1AS-2 Read, write and interpret equations containing addition (+), subtraction (−) and equals (=) symbols, and relate additive expressions and equations to real-life contexts.	2AS-2 Recognise the subtraction structure of 'difference' and answer questions of the form, "How many more...?".	3AS-2 Add and subtract up to three-digit numbers using columnar methods.			6AS/MD-2 Use a given additive or multiplicative calculation to derive or complete a related calculation, using arithmetic properties, inverse relationships, and place-value understanding.
		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.	3AS-3 Manipulate the additive relationship: Understand the inverse relationship between addition and subtraction, and how both relate to the part-part-whole structure. Understand and use the commutative property of addition, and understand the related property for subtraction.			6AS/MD-3 Solve problems involving ratio relationships.
		2AS-4 Add and subtract within 100 by applying related one-digit addition and subtraction facts: add and subtract any 2 two-digit numbers.				6AS/MD-4 Solve problems with 2 unknowns.

Strand	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
MD		2MD-1 Recognise repeated addition contexts, representing them with multiplication equations and calculating the product, within the 2, 5 and 10 multiplication tables.	3MD-1 Apply known multiplication and division facts to solve contextual problems with different structures, including quotitive and partitive division.	4MD-1 Multiply and divide whole numbers by 10 and 100 (keeping to whole number quotients); understand this as equivalent to making a number 10 or 100 times the size. →	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 times the size.	For year 6, MD ready-to-progress criteria are combined with AS ready-to-progress criteria (please see above).
		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).		4MD-2 Manipulate multiplication and division equations, and understand and apply the commutative property of multiplication.	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.	
				4MD-3 Understand and apply the distributive property of multiplication. →	5MD-3 Multiply any whole number with up to 4 digits by any one-digit number using a formal written method.	
					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.	

Strand	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
F			3F-1 Interpret and write proper fractions to represent 1 or several parts of a whole that is divided into equal parts.			6F-1 Recognise when fractions can be simplified, and use common factors to simplify fractions.
			3F-2 Find unit fractions of quantities using known division facts (multiplication tables fluency). →		5F-1 Find non-unit fractions of quantities.	6F-2 Express fractions in a common denominator and use this to compare fractions that are similar in value.
			3F-3 Reason about the location of any fraction within 1 in the linear number system. →	4F-1 Reason about the location of mixed numbers in the linear number system.		6F-3 Compare fractions with different denominators, including fractions greater than 1, using reasoning, and choose between reasoning and common denominator as a comparison strategy.
				4F-2 Convert mixed numbers to improper fractions and vice versa.	5F-2 Find equivalent fractions and understand that they have the same value and the same position in the linear number system.	
			3F-4 Add and subtract fractions with the same denominator, within 1. →	4F-3 Add and subtract improper and mixed fractions with the same denominator, including bridging whole numbers.	5F-3 Recall decimal fraction equivalents for $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{5}$ and $\frac{1}{10}$, and for multiples of these proper fractions.	
G	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. →	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. →	3G-1 Recognise right angles as a property of shape or a description of a turn, and identify right angles in 2D shapes presented in different orientations.		5G-1 Compare angles, estimate and measure angles in degrees (°) and draw angles of a given size.	

Strand	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
G					5G-2 Compare areas and calculate the area of rectangles (including squares) using standard units.	
	1G-2 Compose 2D and 3D shapes from smaller shapes to match an example, including manipulating shapes to place them in particular orientations. →		3G-2 Draw polygons by joining marked points, and identify parallel and perpendicular sides. →	4G-1 Draw polygons, specified by coordinates in the first quadrant, and translate within the first quadrant. →		6G-1 Draw, compose, and decompose shapes according to given properties, including dimensions, angles and area, and solve related problems.
				4G-2 Identify regular polygons, including equilateral triangles and squares, as those in which the side-lengths are equal and the angles are equal. Find the perimeter of regular and irregular polygons.		
				4G-3 Identify line symmetry in 2D shapes presented in different orientations. Reflect shapes in a line of symmetry and complete a symmetric figure or pattern with respect to a specified line of symmetry.		

At Ditchling, to ensure whole consistency and progression, we use the nationally recognised NCETM (National Centre for the Excellence of Teaching in Maths) materials, supplemented by White Rose and Oak Academy, to deliver this curriculum.

The NCETM Curriculum Prioritisation materials then provides coherent sequencing for our primary maths curriculum. It draws together the DfE guidance on curriculum prioritisation, with the high quality professional development and classroom resources provided by the NCETM Primary Mastery PD materials. For each of Years 1-6, there is a mapping of the year's curriculum into around a dozen units.

Year 1 Long Term Plan

#		Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
	Autumn 1 (8 weeks)	Previous Reception Experiences and counting within 100 (EYFS teacher to inform planning) Mastering Number EYFS weeks 26 -30 assessment materials to inform planning			Comparison of quantities and part-whole relationships			Numbers 0-5	
	Autumn 2 (7 weeks)	Numbers 0-10			Recognise, compose, decompose and manipulate 2d and 3d shapes			Consolidation and Assessment	
	Spring 1 (6 weeks)	Additive Structures (extended for 3 lessons per week model)							
		Time			Position and Direction				
	Spring 2 (6 weeks)	Addition and Subtraction Facts within 10				Numbers 0-20			
	Summer 1 (5 weeks)	Numbers 0 - 20		Place Value 0-50 (Year 2 NCETM materials)		Consolidation			
	Summer 2 (7 weeks)	Fractions (Year 2 NCETM Materials)		Unitising and Coin recognition			Consolidation and Assessment		

EYFS Mastering Number Materials
Year 1 NCETM Materials
Year 2 NCETM Materials
Consolidation and Assessment

Year 2 Long Term Plan

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
Autumn 1 (8 weeks)	Number 10 to 100 NB*** 2025 Liaise with Year 1 re coverage of Numbers 0-50 in Summer term				Time O'clock; half past; quarter past and to	Calculations within 20		Fluently add and subtract within 10
Autumn 2 (7 weeks)	Addition and Subtraction of two-digit numbers		Shape		Addition and Subtraction of two-digit numbers			
Spring 1 (6 weeks)	Introduction to Multiplication							
Spring 2 (6 weeks)	Introduction to Division		Sense of Measure: Capacity, Volume and Mass		Money	Time 5 min intervals		
Summer 1 (5 weeks)	Fractions		Position and Direction		Consolidation and Assessment			
Summer 2 (7 weeks)	Multiplication and Division Doubling, halving, quotative and partitive division		Adding and Subtracting Across 10 (Year 3 materials)			Manipulating the additive relationship and securing mental calculation (Year 3 materials)		

Year 2 NCETM Materials
Year 3 NCETM Materials

Year 3 Long Term Plan

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
Autumn 1 (8 weeks)	Numbers to 1000 (Weeks 1-5)					Time	Manipulating the additive relationship and securing mental calculation	
Autumn 2 (7 weeks)	Numbers to 1000 (weeks 6-10)				Parallel and Perpendicular sides and polygons			
Spring 1 (6 weeks)	Column Addition		Times Tables 2, 4, 8					
Spring 2 (6 weeks)	Column Subtraction		Times Tables 3's		Right Angles			
Summer 1 (5 weeks)	Unit Fractions				Time			
Summer 2 (7 weeks)	Non-Unit Fractions			Problem Solving Place Value and Number Facts	Times Tables 3's and 6's	Recap Times Tables and Multiplication		

Year 3 NCETM Materials
Year 4 NCETM Materials
Consolidation and Assessment

Year 4 Long Term Plan

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
Autumn 1 (8 weeks)	Place Value up to 10,000					Column Addition and Subtraction		
Autumn 2 (7 weeks)	Time	Roman Numerals	Recap Timetables 5's and 10's (Year 2 Materials)	Introduction using 2, 4, 8 (Year 3 materials)	Timetables 3, 6, 9, 12			
Spring 1 (6 weeks)	Timetables 7's		Understanding and Manipulating Multiplicative Relationships					
Spring 2 (6 weeks)	Understanding and Manipulating Multiplicative Relationships		Timetables 11's (Year 5)		Perimeter			
Summer 1 (5 weeks)	Fractions							
Summer 2 (7 weeks)	Co-ordinates	MTC	Division with Remainders		Introduction to Negative Numbers (Year 5)	Symmetry		

Year 4 NCETM Materials
Year 5 NCETM Materials
Consolidation and Assessment

Year 5 Long Term Plan

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
Autumn 1 (8 weeks)	Place Value up to 100,000 (Year 6 Materials)		Factors, multiples and primes				Negative Numbers	
Autumn 2 (7 weeks)	Fractions							
Spring 1 (6 weeks)	Decimal Fractions					Angles		
Spring 2 (6 weeks)	Calculating with decimal fractions				Converting Units			
Summer 1 (5 weeks)	Short Multiplication and Division							
Summer 2 (7 weeks)	Short Multiplication and Division	Money	Angles	Area and Scaling				

Year 5 NCETM Materials
Year 6 NCETM Materials
Consolidation and Assessment

Year 6 Long Term Plan

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
Autumn 1 (8 weeks)	Place Value up to 10,000,000			Multiplication and Division				Multiples of 1000
Autumn 2 (7 weeks)	Multiples of 1000	Fractions and Percentages						
Spring 1 (6 weeks)	Calculating using knowledge of structures					Mean Average		
Spring 2 (6 weeks)	Draw, Compose and Decompose Shapes		Ratio and Proportion		Area, Perimeter, Position and Direction			
Summer 1 (5 weeks)	Order of Operations	Solving Problems with 2 unknowns	Statistics	SATS				
Summer 2 (7 weeks)	Order of Operations	Solving Problems with 2 unknowns	Statistics	Grow a Fiver		Calculator Crunch MEI		

Year 6 NCETM Materials
Consolidation and Assessment

6. EYFS

The Early Learning Goals (ELG) linked to Maths are:

Number ELG

Children at the expected level of development will:

- Have a deep understanding of number to 10, including the composition of each number;
- Subitise (recognise quantities without counting) up to 5;
- Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts.

Numerical Patterns ELG

Children at the expected level of development will:

- Verbally count beyond 20, recognising the pattern of the counting system;
- Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity;

Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally.

In Early Years, the curriculum is taught using the NCETM's Mastering Number at Reception materials. This aims to secure firm foundations in the development of good number sense for all children from Reception (and through to Year 1 and Year 2). The aim over time is that children will leave KS1 with fluency in calculation, and a confidence and flexibility with number. Attention will be given to key knowledge and understanding needed in Reception classes, and progression through KS1 to support success in the future.

Our Nursery uses the Early Years Development Matters Statements for Mathematics as the basis for their Maths curriculum. The focus is on learning through play and developing mathematical language, especially relating to cardinality, position, shape and pattern.

Mastering Number – Reception Overview by Week

Autumn 1	Week 1	Week 2	Week 3	Week 4	Week 5
Focus	Subitising	Counting, ordinality and cardinality	Composition	Subitising	Comparison
Set 1	Subitising within 3	Focus on counting skills	Explore how all numbers are made of 1s Focus on composition of 3 and 4	Subitise objects and sounds	Comparison of sets - 'just by looking' Use the language of comparison: <i>more than</i> and <i>fewer than</i>
Autumn 2	Week 6	Week 7	Week 8	Week 9	Week 10
Focus	Counting, ordinality and cardinality	Comparison	Composition	Composition	Counting, ordinality and cardinality
Set 2	Focus on counting skills Focus on the 'five-ness of 5' using one hand and the die pattern for 5	Comparison of sets - by matching Use the language of comparison: <i>more than</i> , <i>fewer than</i> , <i>an equal number</i>	Explore the concept of 'whole' and 'part'	Focus on the composition of 3, 4 and 5	Practise object counting skills Match numerals to quantities within 10 Verbal counting beyond 20

Spring 1	Week 11	Week 12	Week 13	Week 14	Week 15
Focus	Subitising	Counting, ordinality and cardinality	Composition	Composition	Composition
Set 3	Subitise within 5 focusing on die patterns Match numerals to quantities within 5	Counting – focus on ordinality and the 'staircase' pattern See that each number is one more than the previous number	Focus on 5	Focus on 6 and 7 as '5 and a bit'	Compare sets and use language of comparison: <i>more than</i> , <i>fewer than</i> , <i>an equal number to</i> Make unequal sets equal
Spring 2	Week 16	Week 17	Week 18	Week 19	Week 20
Focus	Counting, ordinality and cardinality	Comparison	Composition	Composition	Composition
Set 4	Focus on the 'staircase' pattern and ordering numbers	Focus on ordering of numbers to 8 Use language of <i>less than</i>	Focus on 7	Doubles – explore how some numbers can be made with 2 equal parts	Sorting numbers according to attributes - odd and even numbers

Summer 1	Week 21	Week 22	Week 23	Week 24	Week 25	
Focus	Counting, ordinality and cardinality	Subitising	Composition	Composition	Comparison	
Set 3	Counting – larger sets and things that cannot be seen	Subitising – to 6, including in structured arrangements	Composition – '5 and a bit'	Composition - of 10	Comparison – linked to ordinality Play track games	
Summer 2	Week 26	Review and assess	Review and assess	Review and assess	Review and assess	Review and assess
Set 4	Subitise to 5 Introduce the rekenrek	Automatic recall of bonds to 5	Composition of numbers to 10	Comparison	Number patterns	Counting

7. KS1 and KS2

Maths Education in KS1 and KS2 is enriched by the school's community links, which enables access to local places and visitors. The school also works closely with the Sussex Maths Hub.

Children's work in books will mostly be their own recorded writing. Pages of scaffolded work will only be stuck into children's books when this is absolutely necessary. In some instances, children might stick a diagram or visual into their books that they will label or respond to into their books, rather than completing the entirety of an outcome on a separate sheet which is then stuck in. In Maths, it might be appropriate for children to record their learning or practice onto a provided format. However, the majority of children will record their work directly onto the pages of their book, using the layout provided as a point of reference. This will enable greater ownership and pride in recorded outcomes.

8. Equal Opportunities

Ditchling School will ensure that all children are provided with the same learning opportunities regardless of social class, gender, culture, race, disability or learning difficulties. As a result, we hope to enable all children to develop positive attitudes towards others through our school values of kindness and respect. All pupils have equal access to Maths and all staff members follow the equal opportunities policy. Resources for SEN children and children who are working at greater depth are made available to support and challenge appropriately.

9. Inclusion

Children with English as an additional language: It is vital that children who have English as an additional language have English modelled accurately by all staff at school. Collaborative work with peers (where English is their first language) is essential and EAL children are provided with consistent opportunities for this verbal interaction. Dual language books are available for each class (available from the Inclusion Lead) and each classroom has a display of key words associated with current topics being studied. All teachers include a range of strategies to support children with EAL which includes: teacher and peer modelling and consistent use of visual support, repetition and recasting of language features, word banks and scaffolded speaking and listening activities. Teachers work with the Inclusion Lead to best meet the needs of individuals within their classes. Children who are new to English are assessed, and support is put in place by the Inclusion Lead to help them make rapid progress. In addition, class teachers deploy teaching assistants to provide targeted support and the use of home language support and peer-buddying is encouraged. Assessment data is used to inform and allocate appropriate intervention, including speech and language groups. The school will also support EAL children and their families through drop-in sessions for parents and carers, in line with the Inclusion policy. Class teachers inform the Inclusion Lead if they are concerned that a child may have underlying learning difficulties. Support for children with identified SEND includes the following, as appropriate:

- Volunteer readers
- Reading buddies
- Language groups
- Social skills groups
- Interventions

10. Role of the Subject Leader

The role of the subject leader in Maths is to coordinate the teaching of Maths across all phases of the school. This is in order to secure high quality numeracy provision for every child, including outstanding Maths teaching and learning, effective use of resources and the highest standards of achievement for all.

Key duties that the subject leader will undertake over the course of the year include:

- Monitoring of Maths
- Learning walks and participation in lesson observations
- Planning and organising Maths enrichment opportunities and competitions
- Helping identify and facilitate the professional development needs of staff
- Liaising with SLT to implement school improvement priorities and report on actions, progress and impact
- Liaising with the school Inclusion Lead to best support children experiencing difficulty in Maths
- Organising, maintaining and cataloguing resources
- Keeping abreast of new initiatives in Maths teaching, including attendance of local forums and dissemination of key content.

Lesson slides and outcomes for each unit of work will be monitored by the SLT, in collaboration with subject and phase leaders. This will inform any necessary follow-up action and support, to ensure that school systems are consistent across year groups, age phases across the school throughout the curriculum. This is part of the school's commitment to ensuring a high quality, broad and stimulating curriculum.

Regular opportunities will be provided throughout the year for moderation of children's achievement, according to the programme of study for their year group. The subject leader will use the outcomes of this process to support further development in Maths, as well as the findings from regular book looks (where teachers across year groups will view outcomes of work in each subject). The book look process itself will provide an opportunity to recognise, celebrate and disseminate good practice, and inform judgements as to the progress being made towards identified whole school and subject priorities. Wherever possible, models and that the children have created will be seen as part of this process. In-house moderation and Book looks will be scheduled to take place within teachers' directed time.

11. Parents and Carers

We recognise how crucial the home/school link is for supporting children to have the highest standards of achievement in Maths. At the 'Meet your teacher' meeting at the beginning of every academic year, the Maths, standards of the year group are explained, as well as further meetings throughout the year to support parents to understand the curriculum. Home Learning is a crucial component in a successful home/school link and is organised as follows.

Reception

KS1

KS2