Maths Long Term Overview 2023-24

EYFS

Term	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8		Week 9	Week 10	Week 11	Week 12 and 13	Week 14	Week 15
AUTUMN	Induction	Induction	Induction	**NUMBER** • Perceptual subitising (within 3) • Cardinality, ordinality and counting (within 5) • Composition (of 3 and 4) • Perceptual subitising (within 4) • Comparison (within 4)					Half Term	**SHAPE** 2D shapes, names, properties	**NUMBER** Cardinality, ordinality and counting (within 10)	**NUMBER** Comparison (groups of up to 3)	**NUMBER** Composition (whole and parts, within 3) Composition (whole and parts, within 5)	**NUMBER** Cardinality ordinality and counting (within 10)	End of Term week
				SSM ongoing in all terms in child-initiated activities.						**Shape – 2D one day a week, names and properties.** **SSM ongoing in all terms in child-initiated activities.**					
	Week 1		Week 2		Week 3	Week 4		Week 5		Week 6	Week 7	Week 8	Week 9		Week 10
SPRING	**NUMBER** Perceptual and conceptual subitising (within 6) Cardinality, ordinality and counting (within 10)		**NUMBER** Composition (Partitioning 5)		**NUMBER** Composition (6 and 7)	**NUMBER** (more than, fewer than, equal)		**MEASURE - length**	Half Term	**NUMBER** Counting, ordinality and cardinality (up to 10)	**NUMBER** Comparison (within 10)	**NUMBER** Composition – numbers to 7. Composition – numbers to 10.	**NUMBER** Composition -sorting and review composition of numbers to 10.		MEASURE - weight
	SSM ongoing in all terms in child-initiated activities.									**Shape – 3D one day a week, names and properties.** **SSM ongoing in all terms in child-initiated activities.**					
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7			Weeks 8 -13				Week 14	
SUMMER	**NUMBER:** • Counting (teen and ty numbers) • Subitise to 6 • Composition to 5 • Composition (within 10) • Ordinality (within 10)					**MEASURE- Capacity**	**SHAPE** – repeated patterns		Half Term	**Review and assess: NUMBER and NUMERICAL PATTERNS** • Subitise on Rekenreks (within 5) • Automatic recall ofnumber bonds up to 10) • Double patterns • Patterms within numbers to 10 (evens, odds; doubles) • Composition of numbers to 10 • Comparison, greater than, less than, equal to				End of Term week	
	SSM ongoing in all terms in child-initiated activities.									**SSM ongoing in all terms in child-initiated activities**					

Link to EYFS Framework (Link) - The statutory standards that school and childcare providers must meet for the learning, development and care of children from birth to 5.
Link to Development Matters (Link) – Non-statutory curriculum guidance for the early years foundation stage.

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Aims and outcomes of Mathematics in EYFS

Developing a strong grounding in number is essential so that all children develop the necessary building blocks to excel mathematically. Children should be able to count confidently, develop a deep understanding of the numbers to 10, the relationships between them and the patterns within those numbers. By providing frequent and varied opportunities to build and apply this understanding - such as using manipulatives, including small pebbles and tens frames for organising counting - children will develop a secure base of knowledge and vocabulary from which mastery of mathematics is built. In addition, it is important that the curriculum includes rich opportunities for children to develop their spatial reasoning skills across all areas of mathematics including shape, space and measures. It is important that children develop positive attitudes and interests in mathematics, look for patterns and relationships, spot connections,'have a go', talk to adults and peers about what they notice and not be afraid to make mistakes.

Characteristics of Effective Teaching and Learning:

- Playing and Exploring
- Active Learning
- Creating and Thinking Critically.

EYFS Framework	
Number	**Numerical Patterns**
Early Learning Goal (expected standard)	**Early Learning Goal (expected standard)**
• 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.	• 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.

Development Matters Guidance	
Children in reception will be learning to:	**Examples of how to support this:**
Count objects, actions and sounds.	Develop the key skills of counting objects including saying the numbers in order and matching one number name to each item. Say how many there are after counting – for example, "…6, 7, 8. There are 8 balls" – to help children appreciate that the last number of the count indicates the total number of the group. This is the cardinal counting principle. Say how many there might be before you count to give a purpose to counting: "I think there are about 8. Shall we count to see?" Count out a smaller number from a larger group: "Give me seven…" Knowing when to stop shows that children understand the cardinal principle. Build counting into everyday routines such as register time, tidying up, lining up or counting out pieces of fruit at snack time. Sing counting songs and number rhymes and read stories that involve counting. Play games which involve counting. Identify children who have had less prior experience of counting and provide additional opportunities for counting practice.
Subitise	Show small quantities in familiar patterns (for example, dice) and random arrangements. Play games which involve quickly revealing and hiding numbers of objects. Put objects into five frames and then ten frames to begin to familiarise children with the tens structure of the number system. Prompt children to subitise first when enumerating groups of up to 4 or 5 objects: "I don't think we need to count those. They are in a square shape so there must be 4." Count to check. Encourage children to show a number of fingers 'all at once', without counting.
Link the number symbol (numeral) with its cardinal number value.	Display numerals in order alongside dot quantities or tens frame arrangements. Play card games such as snap or matching pairs with cards where some have numerals, and some have dot arrangements. Discuss the different ways children might record quantities (for example, scores in games), such as tallies, dots and using numeral cards.
Count beyond 10.	Count verbally beyond 20, pausing at each multiple of 10 to draw out the structure, for instance when playing hide and seek, or to time children getting ready. Provide images such as number tracks, calendars and hundred squares indoors and out, including painted on the ground, so children become familiar with two-digit numbers and can start to spot patterns within them.
Compare numbers.	Provide collections to compare, starting with a very different number of things. Include more small things and fewer large things, spread them out and bunch them up, to draw attention to the number not the size of things or the space they take up. Include groups where the number of items is the same. Use vocabulary: 'more than', 'less than', 'fewer', 'the same as', 'equal to'. Encourage children to use these words as well. Distribute items evenly, for example: "Put 3 in each bag," or give the same number of pieces of fruit to each child. Make deliberate mistakes to provoke discussion. Tell a story about a character distributing snacks unfairly and invite children to make sure everyone has the same.

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Understand the 'one more than/one less than' relationship between consecutive numbers.	Make predictions about what the outcome will be in stories, rhymes and songs if one is added, or if one is taken away. Provide 'staircase' patterns which show that the next counting number includes the previous number plus one
Explore the composition of numbers to 10.	Focus on composition of 2, 3, 4 and 5 before moving onto larger numbers Provide a range of visual models of numbers: for example, six as double three on dice, or the fingers on one hand and one more, or as four and two with ten frame images. Model conceptual subitising: "Well, there are three here and three here, so there must be six." Emphasise the parts within the whole: "There were 8 eggs in the incubator. Two have hatched and 6 have not yet hatched." Plan games which involve partitioning and recombining sets. For example, throw 5 beanbags, aiming for a hoop. How many go in and how many don't?
Automatically recall number bonds for numbers 0–5 and some to 10.	Have a sustained focus on each number to and within 5. Make visual and practical displays in the classroom showing the different ways of making numbers to 5 so that children can refer to these. Help children to learn number bonds through lots of hands-on experiences of partitioning and combining numbers in different contexts, and seeing subitising patterns. Play hiding games with a number of objects in a box, under a cloth, in a tent, in a cave, etc.: "6 went in the tent and 3 came out. I wonder how many are still in there?" Intentionally give children the wrong number of things. For example: ask each child to plant 4 seeds then give them 1, 2 or 3. "I've only got 1 seed, I need 3 more." Spot and use opportunities for children to apply number bonds: "There are 5 of us but only 2 clipboards. How many more do we need?" Place objects into a five frame and talk about how many spaces are filled and unfilled.
Select, rotate and manipulate shapes to develop spatial reasoning skills.	Provide high-quality pattern and building sets, including pattern blocks, tangrams, building blocks and magnetic construction tiles, as well as found materials. Challenge children to copy increasingly complex 2D pictures and patterns with these 3D resources, guided by knowledge of learning trajectories: "I bet you can't add an arch to that," or "Maybe tomorrow someone will build a staircase." Teach children to solve a range of jigsaws of increasing challenge.
Compose and decompose shapes so that children recognise a shape can have other shapes within it, just as numbers can.	Investigate how shapes can be combined to make new shapes: for example, two triangles can be put together to make a square. Encourage children to predict what shapes they will make when paper is folded. Wonder aloud how many ways there are to make a hexagon with pattern blocks. Find 2D shapes within 3D shapes, including through printing or shadow play
Continue, copy and create repeating patterns	Make patterns with varying rules (including AB, ABB and ABBC) and objects and invite children to continue the pattern. Make a deliberate mistake and discuss how to fix it.
Compare length, weight and capacity.	Model comparative language using 'than' and encourage children to use this vocabulary. For example: "This is heavier than that." Ask children to make and test predictions. "What if we pour the jugful into the teapot? Which holds more?"

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Year 1

Term		Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
Autumn	Term 1	Transition Week	**Number: Place Value (within 10)** *Ready to progress criteria: 1NPV-1/ 1NPV-2*						
	Term 2	**Number: Addition and Subtraction (within 10)** *Ready to progress criteria: 1NF-1/ 1AS-1/ 1AS-2*						End of Term Activities	
Spring	Term 1	Geometry: Shape	**Number: Place Value (within 20)** *Ready to progress criteria: 1NPV-1/ 1NPV-2*			Number: Addition and Subtraction (20)			
	Term 2	**Number: Addition and Subtraction (within 20)**		Assessment Week	**Number: Place Value (within 50)** *Ready to progress criteria: 1NPV-1/ 1NPV-2*				
Summer	Term 1	Measure: Length and Height	Measure: Mass and Volume	**Number: Multiplication and Division** *Ready to progress criteria: 1NF-2*			Number: Fractions		
	Term 2	Geometry: Position and Direction	Assessment Week	**Number: Place Value (within 100)** *Ready to progress: 1NPV-1/ 1NPV-2/ 1NF-2*		Measure: Money *RtP: 1NF-2*	Measure: Time	End of Term Activities	

Link to National Curriculum (Link) - These are the statutory programmes of study. These are referenced below.

Link to DfE Mathematics Guidance: Key Stage 1 & 2 (Link) – This is non-statutory guidance which provides criteria on the key skills children need to be secure in to progress to the next year groups content. The ready to progress criteria are referenced above where they are specifically covered as part of the mathematics learning journey; there are also separately timetabled opportunities to develop number facts and mental strategies. The ready to progress criteria are referenced below alongside the national curriculum programmes of study.

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Number and Place Value		Addition and Subtraction	
National Curriculum Programme of Study	**DfE Ready to Progress Criteria**	**National Curriculum Programme of Study**	**DfE Ready to Progress Criteria**
• count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number • count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens • given a number, identify one more and one less • identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least • read and write numbers from 1 to 20 in numerals and words	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 = Includes links to Number Facts	• read, write and interpret mathematical statements involving addition (+), subtraction (–) and equals (=) signs • represent and use number bonds and related subtraction facts within 20 • add and subtract one-digit and two-digit numbers to 20, including zero • solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = – 9.	1AS–1 Compose numbers to 10 from 2 parts, and partition numbers to 10 into parts, including recognising odd and even numbers. 1AS–2 Read, write and interpret equations containing addition ( ), subtraction ( ) and equals ( ) symbols, and relate additive expressions and equations to real-life contexts. Includes links to Number Facts
Multiplication and Division		**Number Facts**	
National Curriculum Programme of Study	**DfE Ready to Progress Criteria**	**National Curriculum Programme of Study**	**DfE Ready to Progress Criteria**
• 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	Links to number facts.	Links to number and place value and addition, subtraction and multiplication and division.	1NF–1 Develop fluency in addition and subtraction facts within 10. 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.
Fractions		**Geometry**	
National Curriculum Programme of Study	**DfE Ready to Progress Criteria**	**National Curriculum Programme of Study**	**DfE Ready to Progress Criteria**

• recognise, find and name a half as one of two equal parts of an object, shape or quantity
• recognise, find and name a quarter as one of four equal parts of an object, shape or quantity.
		• recognise and name common 2-D and 3-D shapes, including:
		  ○ 2-D shapes [for example, rectangles (including squares), circles and triangles]
		  ○ 3-D shapes [for example, cuboids (including cubes), pyramids and spheres].
		• describe position, direction and movement, including whole, half, quarter and three-quarter turns.
			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.

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Measure	
National Curriculum Programme of Study	**DfE Ready to Progress Criteria**

• compare, describe and solve practical problems for:
  ○ lengths and heights [for example, long/short, longer/shorter, tall/short, double/half]
  ○ mass/weight [for example, heavy/light, heavier than, lighter than]
  ○ capacity and volume [for example, full/empty, more than, less than, half, half full, quarter]
  ○ time [for example, quicker, slower, earlier, later]
• measure and begin to record the following:
  ○ lengths and heights
  ○ mass/weight
  ○ capacity and volume
  ○ time (hours, minutes, seconds)
• recognise and know the value of different denominations of coins and notes
• sequence events in chronological order using language [for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening]
• recognise and use language relating to dates, including days of the week, weeks, months and years
• tell the time to the hour and half past the hour and draw the hands on a clock face to show these times.
	Measurement and statistics are integrated as applications of number criteria, and elements of measurement that relate to shape are included in the Geometry strand.
	
	Includes links to Number Facts

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Year 2

Term		Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
Autumn	Term 1	**Number: Place Value** *Ready to progress: 2NPV-1 / 2NPV-2*				**Number: Addition and Subtraction** *Ready to Progress: 2NF-1/ 2AS-1/ 2AS-3/ 2AS-4*			
	Term 2	**Number: Addition and Subtraction** *RtP: see autumn*	**Assessment Week**	**Geometry: Shape** *Ready to progress: 2G-1*		**Measure: Money** *Ready to progress: 2AS-2/ 2AS-4*		**End of Term Activities**	
Spring	Term 1	**Number: Multiplication and Division** *Ready to progress:2MD-1/ 2MD-2*				**Measure: Mass, Capacity and Temperature** *RtP: 2AS-4/ 2MD-1*			
	Term 2	**Measure: Mass, Capacity and Temperature** *RtP: 2AS-4/ 2MD-1*	**Assessment Week**	**Number: Fractions**					
Summer	Term 1	**Number: Fractions**	**Statistics**	**Revision: Number Facts/ Addition and Subtraction including through measure**	**Revision: Fractions/ Multiplication and Division including through measure**	**Revision: Fractions, Statistics, Shape, Time**	**SATs Week/ Revision**		
	Term 2	**Measure: Length and Height** *RtP: 2MD-1*	**Measure: Time**			**Geometry: Position and Direction**		**End of Term Activities**	

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Number and Place Value	
National Curriculum Programme of Study	**DfE Ready to Progress Criteria**
• count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward • recognise the place value of each digit in a two-digit number (tens, ones) • identify, represent and estimate numbers using different representations, including the number line • compare and order numbers from 0 up to 100; use and = signs • read and write numbers to at least 100 in numerals and in words • use place value and number facts to solve problems	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 twodigit number in the linear number system, including identifying the previous and next multiple of 10. Includes links to Number Facts

Addition and Subtraction	
National Curriculum Programme of Study	**DfE Ready to Progress Criteria**

• Solve problems with addition and subtraction: ♣ using concrete objects and pictorial representations, including those involving numbers, quantities and measures
• applying their increasing knowledge of mental and written methods
• recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100
• add and subtract numbers using concrete objects, pictorial representations, and mentally, including:
  ○ a two-digit number and ones
  ○ a two-digit number and tens
  ○ two two-digit numbers
  ○ adding three one-digit numbers
• show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot
• recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.
	2AS–1 Add and subtract across 10.
	2AS–2 Recognise the subtraction structure of 'difference' and answer questions of the form, "How many more…?".
	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 twodigit number.
	2AS–4 Add and subtract within 100 by applying related one-digit addition and subtraction facts: add and subtract any 2 twodigit numbers.
	
	Includes links to Number Facts

Multiplication and Division	
National Curriculum Programme of Study	**DfE Ready to Progress Criteria**
• recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers • calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs • show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot • solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts.	2MD–1 Recognise repeated addition contexts, representing them with multiplication equations and calculating the product, within the 2, 5 and 10 multiplication tables. 2MD–2 Relate grouping problems where the number of groups is unknown to multiplication equations with a missing factor, and to division equations (quotative division). Includes links to Number Facts

Number Facts	
National Curriculum Programme of Study	**DfE Ready to Progress Criteria**
Links to number and place value and addition, subtraction and multiplication and division.	2NF–1 Secure fluency in addition and subtraction facts within 10, through continued practice.

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Fractions		Geometry	
National Curriculum Programme of Study	**DfE Ready to Progress Criteria**	**National Curriculum Programme of Study**	**DfE Ready to Progress Criteria**
• 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 • write simple fractions for example, half of 6 = 3 and recognise the equivalence of 2 quarters and 1 half		• identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line • identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces • identify 2-D shapes on the surface of 3-D shapes, [for example, a circle on a cylinder and a triangle on a pyramid] • compare and sort common 2-D and 3-D shapes and everyday objects. • order and arrange combinations of mathematical objects in patterns and sequences • use mathematical vocabulary to describe position, direction and movement, including movement in a straight line and distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anticlockwise).	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.
Measure		**Statistics**	
National Curriculum Programme of Study	**DfE Ready to Progress Criteria**	**National Curriculum Programme of Study**	**DfE Ready to Progress Criteria**
• 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 • compare and order lengths, mass, volume/capacity and record the results using >, < and = • recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value • find different combinations of coins that equal the same amounts of money • solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change • compare and sequence intervals of time • tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock face to show these times • know the number of minutes in an hour and the number of hours in a day.	Measurement and statistics are integrated as applications of number criteria, and elements of measurement that relate to shape are included in the Geometry strand.	• interpret and construct simple pictograms, tally charts, block diagrams and simple tables • ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity • ask and answer questions about totalling and comparing categorical data.	Measurement and statistics are integrated as applications of number criteria, and elements of measurement that relate to shape are included in the Geometry strand.

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Year 3

Term		Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
Autumn	Term 1	**Number: Place Value** *Ready to Progress: 3NPV-1/ 3NPV-2/ 3NPV-3/ 3NPV-4*				**Number: Addition and Subtraction** *Ready to Progress: 3NPV-1/ 3NF-1/ 3AS-1/ 3AS-2/ 3AS-3*			
	Term 2	**Number: +/- cont.** *RtP: see Autumn*	**Assessment Week**	**Number: Multiplication and Division** *Ready to Progress: 3NPV-1/ 3NF-2/ 3NF-3/ 3MD-1*				**End of Term Activities**	
Spring	Term 1	**Number: x/÷ cont.** *RtP: see Spring*	**Measure: Length and Perimeter** *Ready to Progress: 3NPV-1/ NPV-4*			**Measure: Mass and Capacity** *RtP: NPV-1*			
	Term 2	**Calculation Recap**	**Assessment Week**	**M: Mass and Capacity** *RtP: NPV-1*	**Number: Fractions** *Ready to Progress: 3NF-3/ 3F-1/ 3F-2/ 3F-3/ 3F-4*				
Summer	Term 1	**Number: Fractions** *RtP: 3NF-3/ 3F-1/ 3F-2/ 3F-3/ 3F-4*		**Measure: Money** *Ready to Progress: 3AS-1/ 3AS-3*		**Measure: Time**			
	Term 2	**Calculation Recap**	**Assessment Week**	**Geometry: Shape** *Ready to Progress: 3G-1/ 3G-2*			**Statistics**	**End of Term Activities**	

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Link to DfE Mathematics Guidance: Key Stage 1 & 2 Link) – This is non-statutory guidance which provides criteria on the key skills children need to be secure in to progress to the next year groups content. The ready to progress criteria are referenced above where they are specifically covered as part of the mathematics learning journey; there are also separately timetabled opportunities to develop number facts and mental strategies. The ready to progress criteria are referenced below alongside the national curriculum programmes of study.

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Number and Place Value	
National Curriculum Programme of Study	**DfE Ready to Progress Criteria**
• count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number • recognise the place value of each digit in a three-digit number (hundreds, tens, ones) • compare and order numbers up to 1000 • identify, represent and estimate numbers using different representations • read and write numbers up to 1000 in numerals and in words • solve number problems and practical problems involving these ideas.	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 threedigit multiples of 10 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. 3NPV–3 Reason about the location of any threedigit number in the linear number system, including identifying the previous and next multiple of 100 and 10. 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. Includes links to number facts

Addition and Subtraction	
National Curriculum Programme of Study	**DfE Ready to Progress Criteria**

• add and subtract numbers mentally, including:
  ○ a three-digit number and ones
  ○ a three-digit number and tens
  ○ a three-digit number and hundreds
• add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction
• estimate the answer to a calculation and use inverse operations to check answers
• solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction
	3AS–1 Calculate complements to 100.
	3AS–2 Add and subtract up to three-digit numbers using columnar methods.
	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
	
	Includes links to number facts

Multiplication and Division	
National Curriculum Programme of Study	**DfE Ready to Progress Criteria**
• recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables • write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods • 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.	3MD–1 Apply known multiplication and division facts to solve contextual problems with different structures, including quotitive and partitive division. Includes links to number facts

Number Facts	
National Curriculum Programme of Study	**DfE Ready to Progress Criteria**
Links to number and place value and addition, subtraction and multiplication and division.	3NF–1 Secure fluency in addition and subtraction facts that bridge 10, through continued practice. 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 3NF–3 Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 10)

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Fractions		Geometry	
National Curriculum Programme of Study	**DfE Ready to Progress Criteria**	**National Curriculum Programme of Study**	**DfE Ready to Progress Criteria**
• count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10 • recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators • recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators • recognise and show, using diagrams, equivalent fractions with small denominators • add and subtract fractions with the same denominator within one whole [for example, $\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$] • compare and order unit fractions, and fractions with the same denominators • solve problems that involve all of the above.	3F–1 Interpret and write proper fractions to represent 1 or several parts of a whole that is divided into equal parts. 3F–2 Find unit fractions of quantities using known division facts (multiplication tables fluency). 3F–3 Reason about the location of any fraction within 1 in the linear number system. 3F–4 Add and subtract fractions with the same denominator, within 1. Links to number facts	• draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them • recognise angles as a property of shape or a description of a turn • identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn; identify whether angles are greater than or less than a right angle • identify horizontal and vertical lines and pairs of perpendicular and parallel lines.	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. 3G–2 Draw polygons by joining marked points, and identify parallel and perpendicular sides.

Measure		Statistics	
National Curriculum Programme of Study	**DfE Ready to Progress Criteria**	**National Curriculum Programme of Study**	**DfE Ready to Progress Criteria**
• measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml) • measure the perimeter of simple 2-D shapes • add and subtract amounts of money to give change, using both £ and p in practical contexts • tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks • estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hours; use vocabulary such as o'clock, a.m./p.m., morning, afternoon, noon and midnight • know the number of seconds in a minute and the number of days in each month, year and leap year • compare durations of events [for example to calculate the time taken by particular events or tasks].	Measurement and statistics are integrated as applications of number criteria, and elements of measurement that relate to shape are included in the Geometry strand. Links to number and place value and addition and subtraction	• interpret and present data using bar charts, pictograms and tables • solve one-step and two-step questions [for example, 'How many more?' and 'How many fewer?'] using information presented in scaled bar charts and pictograms and tables.	Measurement and statistics are integrated as applications of number criteria, and elements of measurement that relate to shape are included in the Geometry strand.

Maths Long Term Overview 2023-24

Year 4

Term		Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
Autumn	Term 1	**Number: Place Value** *Ready to Progress: 4NPV-1/ 4NVP-2/ 4NVP-3/ 4NPV-4*					**Number: Addition and Subtraction** *Ready to Progress:4NPV-1*		
	Term 2	**Measure: Area**	**Assessment Week**	**Number: Multiplication and Division** *Ready to Progress: 4NPV-1/ 4NF-1/ 4NF-2/ 4NF-3/ 4MD-1/ 4ND-2/ 4MD-3*				**End of Term Activities**	
Spring	Term 1	**Number: Multiplication and Division** *RtP: 4NPV-1/ 4NF-1/ 4NF-2/ 4NF-3/ 4MD-1/ 4ND-2/ 4MD-3*			**Measure: Length and Perimeter** *Ready to Progress: 4G-2*				
	Term 2	**Number: Fractions** *RtP: 4F-1/ 4F-2/ 4F-3*	**Assessment Week**	**Number: Fractions** *Ready to Progress: 4F-1/ 4F-2/ 4F-3*					
Summer	Term 1	**Number: Decimals**				**Measure: Money**	**Measure: Time**		
	Term 2	**Measure: Time**	**Assessment Week**	**Geometry: Shape** *Ready to Progress: 4G-1/ 4G-2/ 4G-3*		**Geometry: Position and Direction**		**End of Term Activities**	

Link to National Curriculum (Link) - These are the statutory programmes of study.

Link to DfE Mathematics Guidance: Key Stage 1 & 2 Link) – This is non-statutory guidance which provides criteria on the key skills children need to be secure in to progress to the next year groups content. The ready to progress criteria are referenced above where they are specifically covered as part of the mathematics learning journey; there are also separately timetabled opportunities to develop number facts and mental strategies. The ready to progress criteria are referenced below alongside the national curriculum programmes of study.

Maths Long Term Overview 2023-24

Number and Place Value		Addition and Subtraction	
National Curriculum Programme of Study	**DfE Ready to Progress Criteria**	**National Curriculum Programme of Study**	**DfE Ready to Progress Criteria**
• count in multiples of 6, 7, 9, 25 and 1000 • find 1000 more or less than a given number • count backwards through zero to include negative numbers • recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones) • order and compare numbers beyond 1000 • identify, represent and estimate numbers using different representations • round any number to the nearest 10, 100 or 1000 • solve number and practical problems that involve all of the above and with increasingly large positive numbers • 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.	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. 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. 4NPV–3 Reason about the location of any fourdigit 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. 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.	• add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate • estimate and use inverse operations to check answers to a calculation • solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.	There are no ready to progress criteria for this year group for addition and subtraction, but it is expected that year 3's criteria are regularly revisited and kept secure. Links to number and place value.
Multiplication and Division		**Number Facts**	
National Curriculum Programme of Study	**DfE Ready to Progress Criteria**	**National Curriculum Programme of Study**	**DfE Ready to Progress Criteria**
• recall multiplication and division facts for multiplication tables up to 12 × 12 • use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers • recognise and use factor pairs and commutativity in mental calculations • multiply two-digit and three-digit numbers by a one-digit number using formal written layout • 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.	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. 4MD–2 Manipulate multiplication and division equations, and understand and apply the commutative property of multiplication. 4MD–3 Understand and apply the distributive property of multiplication. Links to number and place value and number facts.	Links to number and place value and addition, subtraction and multiplication and division.	4NF–1 Recall multiplication and division facts up to 12 x 12 , and recognise products in multiplication tables as multiples of the corresponding number. 4NF–2 Solve division problems, with two-digit dividends and one-digit divisors, that involve remainders, and interpret remainders appropriately according to the context. 4NF–3 Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 100)

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Fractions (including decimals)	
National Curriculum Programme of Study	**DfE Ready to Progress Criteria**
• recognise and show, using diagrams, families of common equivalent fractions • count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten. • 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 • add and subtract fractions with the same denominator • recognise and write decimal equivalents of any number of tenths or hundredths • recognise and write decimal equivalents to $\frac{1}{4}, \frac{1}{2}, \frac{3}{4}$ • 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 • round decimals with one decimal place to the nearest whole number • compare numbers with the same number of decimal places up to two decimal places • solve simple measure and money problems involving fractions and decimals to two decimal places.	4F–1 Reason about the location of mixed numbers in the linear number system. 4F–2 Convert mixed numbers to improper fractions and vice versa. 4F–3 Add and subtract improper and mixed fractions with the same denominator, including bridging whole numbers.

Geometry	
National Curriculum Programme of Study	**DfE Ready to Progress Criteria**
• compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes • identify acute and obtuse angles and compare and order angles up to two right angles by size • identify lines of symmetry in 2-D shapes presented in different orientations • complete a simple symmetric figure with respect to a specific line of symmetry. • describe positions on a 2-D grid as coordinates in the first quadrant • describe movements between positions as translations of a given unit to the left/right and up/down • plot specified points and draw sides to complete a given polygon	4G–1 Draw polygons, specified by coordinates in the first quadrant, and translate within the first quadrant. 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.

Measure	
National Curriculum Programme of Study	**DfE Ready to Progress Criteria**
• Convert between different units of measure [for example, kilometre to metre; hour to minute] # • measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres • find the area of rectilinear shapes by counting squares • estimate, compare and calculate different measures, including money in pounds and pence • read, write and convert time between analogue and digital 12- and 24-hour clocks • solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.	Measurement and statistics are integrated as applications of number criteria, and elements of measurement that relate to shape are included in the Geometry strand. Links to geometry.

Statistics	
National Curriculum Programme of Study	**DfE Ready to Progress Criteria**
• interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs. • solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.	Measurement and statistics are integrated as applications of number criteria, and elements of measurement that relate to shape are included in the Geometry strand.

Maths Long Term Overview 2023-24

Year 5

Term		Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
Autumn	Term 1	**Number: Place Value**			**Number: Addition and Subtraction**		**Number: Multiplication and Division** *Ready to Progress:5NF-1/ 5NF-2/ 5MD-1/ 5MD-2*		
	Term 2	**Number: Fractions** *RtP: 5F-1/ 5F-2*	**Assessment Week**	**Number: Fractions** *Ready to Progress: 5F-1/ 5F-2/ 5F-3*			**Number: Multiplication and Division** *RtP: 5NF-1/ 5MD-3-4*	**End of Term Activities**	
Spring	Term 1	**Number: Multiplication and Division** *Ready to Progress: 5NF-1/ 5MD-3/ 5MD-4*		**Number: Fractions**		**Number: Decimals and Percentages** *RtP: 5NPV-1/ 5NPV-2/ 5NPV-3/ 5NVP-4*			
	Term 2	**Number: Decimals and Percentages** *RtP: 5NPV-1/ 5NPV-2/ 5NPV-3/ 5NVP-4*	**Assessment Week**	**Number: Decimals and Percentages** *RtP: 5NPV-1/ 5NPV-2/ 5NPV-3/ 5NVP-4*	**Measure: Perimeter and Area**				
Summer	Term 1	**Statistics**	**Geometry: Shape** *Ready to Progress: 5G-1/ 5G-3*		**Geometry: Position and Direction**		**Number: Decimals** *RtP: 5MD-1*		
	Term 2	**Number: Decimals** *RtP: 5MD-1*	**Assessment Week**	**Number: Decimals** *RtP: 5MD-1*	**Number: Negative Numbers**	**Measure: Converting units of measure** *RtP: NPV-5*	**Measure: Volume**	**End of Term Activities**	

Link to National Curriculum (Link) - These are the statutory programmes of study.

Link to DfE Mathematics Guidance: Key Stage 1 & 2 Link) – This is non-statutory guidance which provides criteria on the key skills children need to be secure in to progress to the next year groups content. The ready to progress criteria are referenced above where they are specifically covered as part of the mathematics learning journey; there are also separately timetabled opportunities to develop number facts and mental strategies. The ready to progress criteria are referenced below alongside the national curriculum programmes of study.

Maths Long Term Overview 2023-24

Number and Place Value	
National Curriculum Programme of Study	**DfE Ready to Progress Criteria**
• read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit • count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000 • interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero • round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000 • solve number problems and practical problems that involve all of the above • read Roman numerals to 1000 (M) and recognise years written in Roman numerals.	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. 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. 5NPV–3 Reason about the location of any number with up to 2 decimals places in the linear number system, including identifying the previous and next multiple of 1 and 0.1 and rounding to the nearest of each. 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. 5NPV–5 Convert between units of measure, including using common decimals and fractions.

Addition and Subtraction	
National Curriculum Programme of Study	**DfE Ready to Progress Criteria**
• add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction) • add and subtract numbers mentally with increasingly large numbers • use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy • solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.	There are no ready to progress criteria for this year group for addition and subtraction, but it is expected that year 3's criteria are regularly revisited and kept secure.

Multiplication and Division		
National Curriculum Programme of Study	**DfE Ready to Progress Criteria**	
• identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers • know and use the vocabulary of prime numbers, prime factors and composite (nonprime) numbers • establish whether a number up to 100 is prime and recall prime numbers up to 19 • multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers • multiply and divide numbers mentally drawing upon known facts • divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context • multiply and divide whole numbers and those involving decimals by 10, 100 and 1000 • recognise and use square numbers and cube numbers, and the notation for squared (2) and cubed (3) • 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 and division, including scaling by simple fractions and problems involving simple rates.	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. 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. 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. Links to number facts.

Number Facts	
National Curriculum Programme of Study	**DfE Ready to Progress Criteria**
Links to number and place value and addition, subtraction and multiplication and division.	5NF–1 Secure fluency in multiplication table facts, and corresponding division facts, through continued practice. 5NF–2 Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 1 tenth or 1 hundredth).

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Fractions (including decimals and percentages)		Geometry	
National Curriculum Programme of Study	**DfE Ready to Progress Criteria**	**National Curriculum Programme of Study**	**DfE Ready to Progress Criteria**

• compare and order fractions whose denominators are all multiples of the same number
• identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths
• recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number
[for example, 2 fifths + 4 fifths = $\frac{6}{5} = 1\frac{1}{5}$
• add and subtract fractions with the same denominator and denominators that are multiples of the same number
• multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams
• read and write decimal numbers as fractions [for example, 0.71 = $\frac{71}{100}$
• recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents
• round decimals with two decimal places to the nearest whole number and to one decimal place
• read, write, order and compare numbers with up to three decimal places.
• solve problems involving number up to three decimal places
• recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per hundred', and write percentages as a fraction with denominator 100, and as a decimal
• solve problems which require knowing percentage and decimal equivalents of ½ ¼ $\frac{1}{5}, \frac{2}{5}, \frac{4}{5}$ and those fractions with a denominator of a multiple of 10 or 25.
	5F–1 Find non-unit fractions of quantities.
	5F–2 Find equivalent fractions and understand that they have the same value and the same position in the linear number system.
	F–3 Recall decimal fraction equivalents for $\frac{1}{2}, \frac{1}{4}, \frac{1}{5}$ and $\frac{1}{10}$ for multiples of these proper fractions.
	
	Links to number and place value and multiplication and division.
		• identify 3-D shapes, including cubes and other cuboids, from 2-D representations
		• know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles
		• draw given angles, and measure them in degrees (o)
		• identify:
		  ○ angles at a point and one whole turn (total 360o
		  ○ angles at a point on a straight line and 2 1 a turn (total 180o)
		  ○ other multiples of 90o
		• 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.
		• identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed.
			5G–1 Compare angles, estimate and measure angles in degrees (°) and draw angles of a given size.
			5G–2 Compare areas and calculate the area of rectangles (including squares) using standard units.

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Measure		Statistics	
National Curriculum Programme of Study	**DfE Ready to Progress Criteria**	**National Curriculum Programme of Study**	**DfE Ready to Progress Criteria**
• convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre) • understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints • measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres • calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm2) and square metres (m2) and estimate the area of irregular shapes • estimate volume [for example, using 1 cm3 blocks to build cuboids (including cubes)] and capacity [for example, using water] • solve problems involving converting between units of time • use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling.	Measurement and statistics are integrated as applications of number criteria, and elements of measurement that relate to shape are included in the Geometry strand. Links to number and place value.	• solve comparison, sum and difference problems using information presented in a line graph • complete, read and interpret information in tables, including timetables.	Measurement and statistics are integrated as applications of number criteria, and elements of measurement that relate to shape are included in the Geometry strand.

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Year 6

Term		Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
Autumn	Term 1	**Assessment and gap consolidation**	**Numbe**r: Place Value *RtP: 6NPV-1/ 6NPV-2/ 6NVP-3/ 6NVP- 4*		Number: Addition and Subtraction *through measures, money*		**Geometry:** Shape *(Inc angles)* *Ready to Progress: 6G-1*		**Statistics**
	Term 2	**Number: Multiplication and Division** *Ready to Progress: 6NPV-4/ 6AS/MD-2*		**Measure**: Converting Measures incl Area and Perimeter *Ready to Progress: 6NPV-4*	**Number: Fractions (***Including decimals and percentages)* *Ready to Progress: 6F-1/ 6F-2/ 6F-3*		**Number:** Ratio and Proportion *RtP: 6AS/MD-1 + 3*	**Number**: Four Calculations *Apply through money and decimals, Bodmas*	
Spring	Term 1	**Number: Four Calculations** ***(Apply through money and decimals, Bodmas)*** *Ready to Progress: 6AS/MD-2*		**Measure: Area and Perimeter** ***Inc angles*** *Ready to Progress: 6G-1*	**Number: Algebra** ***Inc shape*** *Ready to Progress: 6G-1/ 6AS/MD-4*				
	Term 2	**Number: Fractions., Ratio and Proportion** *Ready to Progress: 6F-1/ 6F-2/ 6F-3*		**Assessment Week (Variable)**	**Measure: Time**	**Statistics** **Geometry Position and Direction**			
Summer	Term 1	**Revision**				**SATs**	**Consolidation**		
	Term 2	**Consolidation and Projects**						**End of Term Activities**	

Link to National Curriculum (Link) - These are the statutory programmes of study.

Link to DfE Mathematics Guidance: Key Stage 1 & 2 Link) – This is non-statutory guidance which provides criteria on the key skills children need to be secure in to progress to the next year groups content. The ready to progress criteria are referenced above where they are specifically covered as part of the mathematics learning journey; there are also separately timetabled opportunities to develop number facts and mental strategies. The ready to progress criteria are referenced below alongside the national curriculum programmes of study.

Maths Long Term Overview 2023-24

Number and Place Value		Addition, Subtraction, Multiplication and Division	
National Curriculum Programme of Study	**DfE Ready to Progress Criteria**	**National Curriculum Programme of Study**	**DfE Ready to Progress Criteria**
• read, write, order and compare numbers up to 10 000 000 and determine the value of each digit • round any whole number to a required degree of accuracy • use negative numbers in context, and calculate intervals across zero • solve number and practical problems that involve all of the above	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). 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. 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. 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.	• multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication • divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context • divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context • perform mental calculations, including with mixed operations and large numbers • identify common factors, common multiples and prime numbers • use their knowledge of the order of operations to carry out calculations involving the four operations • solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why • solve problems involving addition, subtraction, multiplication and division • use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy	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). 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. 6AS/MD–3 Solve problems involving ratio relationships. 6AS/MD–4 Solve problems with 2 unknowns. Links to number and place value.

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Number Facts		Fractions (including decimals and percentages)	
National Curriculum Programme of Study	**DfE Ready to Progress Criteria**	**National Curriculum Programme of Study**	**DfE Ready to Progress Criteria**
Links to number and place value and addition, subtraction and multiplication and division.	There are no specific number facts criteria as these should be secured by the end of year 5.	• use common factors to simplify fractions; use common multiples to express fractions in the same denomination • compare and order fractions, including fractions > 1 • add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions • multiply simple pairs of proper fractions, writing the answer in its simplest form [for example, $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$] • divide proper fractions by whole numbers [for example $\frac{1}{3} \div 2 = \frac{1}{6}$] • associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example, $\frac{3}{8}$] • identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places. • multiply one-digit numbers with up to two decimal places by whole numbers • use written division methods in cases where the answer has up to two decimal places • solve problems which require answers to be rounded to specified degrees of accuracy • recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.	6F–1 Recognise when fractions can be simplified, and use common factors to simplify fractions. 6F–2 Express fractions in a common denomination and use this to compare fractions that are similar in value. 6F–3 Compare fractions with different denominators, including fractions greater than 1, using reasoning, and choose between reasoning and common denomination as a comparison strategy.
Ratio and Proportion		**Algebra**	
National Curriculum Programme of Study	**DfE Ready to Progress Criteria**	**National Curriculum Programme of Study**	**DfE Ready to Progress Criteria**
• 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.	Links to number and place value and fractions.	• use simple formulae • generate and describe linear number sequences • express missing number problems algebraically • find pairs of numbers that satisfy an equation with two unknowns • enumerate possibilities of combinations of two variables	Links to number and place value, addition and subtraction and multiplication and division and geometry.

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Geometry	
National Curriculum Programme of Study	**DfE Ready to Progress Criteria**
• draw 2-D shapes using given dimensions and angles • recognise, describe and build simple 3-D shapes, including making nets • compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons • illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius • recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles.	6G–1 Draw, compose, and decompose shapes according to given properties, including dimensions, angles and area, and solve related problems.

Measure	
National Curriculum Programme of Study	**DfE Ready to Progress Criteria**
• solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate • use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to three decimal places • convert between miles and kilometres • recognise that shapes with the same areas can have different perimeters and vice versa • recognise when it is possible to use formulae for area and volume of shapes • calculate the area of parallelograms and triangles • calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm3) and cubic metres (m3), and extending to other units [for example, mm3 and km3].	Measurement and statistics are integrated as applications of number criteria, and elements of measurement that relate to shape are included in the Geometry strand. Links to geometry.

Statistics	
National Curriculum Programme of Study	**DfE Ready to Progress Criteria**
• interpret and construct pie charts and line graphs and use these to solve problems • calculate and interpret the mean as an average.	Measurement and statistics are integrated as applications of number criteria, and elements of measurement that relate to shape are included in the Geometry strand.