"Nihil Sine Deo"

Maths Long Term Curriculum Plan.

Intent	Our aim at St Anne's and St Joseph's is for all children to enjoy mathematics and have a **secure** and **deep** understanding of fundamental mathematical concepts and procedures when they leave us to go to secondary school. We want children to see the mathematics that surrounds them every day and enjoy developing vital life skills in this subject. **Aims for our pupils:** • To develop a growth mindset and positive attitude towards mathematics. • To become confident and proficient with number, including fluency with mental calculation and look for connections between numbers. • To become problem solvers, who can reason, think logically, work systematically and apply their knowledge of mathematics. • To develop their use of mathematical language. • To become independent learners and to work co-operatively with others. • To appreciate real life contexts to learning in mathematics.
Implementation	**Our teaching for mastery is underpinned by the NCETM's 5 Big Ideas.** • Opportunities for ***Mathematical Thinking*** allow children to make chains of reasoning connected with the other areas of their mathematics. • A focus on ***Representation and Structure*** ensures concepts are explored using concrete, pictorial and abstract representations, the children actively look for patterns and generalise whilst problem solving. • ***Coherence*** is achieved through the planning of small, connected steps to link every question and lesson within a topic. • Teachers use both procedural and conceptual ***Variation*** within their lessons and there remains an emphasis on ***Fluency*** with a relentless focus on number and times table facts.
SEND	St Anne's and St Joseph's Primary School aims to meet the needs of all, taking into account gender, ethnicity, culture, religion, language, disability, age and social circumstances. The provision for children with special needs is detailed in the SEND Policy. SEN pupils may be supported by additional adults, different resources, differentiated activities. They may also complete additional activities outside of the mathematics lesson or be taught in a smaller groups. We have high expectations of all children and strongly believe that all children are able to achieve in mathematics. Some may take longer to grasp concepts and may need careful scaffolding or extra time/support. The White Rose Maths hub provides resources and opportunities for pupils with SEND and adaptations are made at the Teacher's discretion using their knowledge of pupils.

Golden threads	Place value	Multiplication and division	Addition and subtraction	Fractions and algebra	Shape and measure	Statistics
School Values	**Faith**	**Peace**	**Love**	**Forgiveness**	**Trust**	**Hope**
EYFS						
	Our EYFS curriculum is planned and sequenced in line with EYFS Framework expectations and Development Matters. Below is exemplification of what Maths covers, please see our Early Years to KS1 bridging documents for further exemplification on how our Early Years lays the foundations for learning in all other subject areas. The most relevant statements for mathematics are taken from the areas of Communication and Language and Mathematics. Knowledge is organised in three areas; number, measurement and geometry.					
Number	Count objects, actions, and sounds. Subitise Link the number symbol numeral with its cardinal number value. Explore the composition of numbers to 10. Automatically recall some number bonds for numbers 0-5 and some to 10.			**ELG** Number: Have a deep understanding of number to 10, including the composition of each number. Subitise (recognise quantities without counting) up to 5. Automatically recall number bonds to 5 and some number bonds to 10, including double facts.		
Numerical patterns	Count beyond 10. Compare numbers. Understand the one more than one less than relationship between consecutive numbers. Select, rotate and manipulate shapes to develop spatial reasoning skills. Compose and decompose shapes so that children recognise a shape can have other shapes within it, just as numbers can. Continue, copy and create repeating patterns. Compare length, weight and capacity.			**ELG** Numerical Patterns: Count verbally beyond 20, recognising the pattern of the counting system. Compare quantities sup 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 events and odds, double facts and how quantities can be distributed evenly.		
	Autumn		**Spring**		**Summer**	
NCETM	In autumn term children will build on previous experiences of number from their home and nursery environments, and further develop their subitising and counting skills. They will explore the composition of numbers within 5. They will begin to compare sets of objects and use the language of comparison. • Identify when a set can be subitised and when counting is needed.		In spring term children will continue to develop their subitising and counting skills and explore the composition of numbers within and beyond 5. They will begin to identify when two sets are equal or unequal and connect two equal groups to doubles. They will begin to connect quantities to numerals. • Continue to develop their subitising skills for numbers within and beyond 5, and increasingly connect quantities to numerals. • Begin to identify missing parts for numbers within 5.		In summer term children will consolidate their counting skills, counting to larger numbers and developing a wider range of counting strategies. They will secure knowledge of number facts through varied practice. • Continue to develop their counting skills, counting larger sets as well as counting actions and sounds. • Explore a range of representations of numbers, including the 10 frame and see how doubles can be arranged in a 10 frame.	

	• Subitise different arrangements, both unstructured and structured, including using the number frame. • Make different arrangements of numbers within 5 and talk about what they can see, to develop their conceptual subitising skills. • Spot smaller numbers 'hiding' inside larger numbers. • Connect quantities and numbers to finger patterns and explore different ways of representing numbers on their fingers. • Hear and join in with the counting sequence and connect this to the staircase pattern of the counting numbers - seeing that each number is made of one more than the previous number. • Develop counting skills and knowledge, including: that the last number in the count tells us how many (cardinality); to be accurate in counting, each thing must be counted once and once only and in any order; the need for 1:1 correspondence; understanding that anything can be counted, including actions and sounds. • Compare sets of objects by matching. Begin to develop the language of 'whole' when talking about objects which have parts.		• Explore the structure of the numbers 7 and 6 as '5 and a bit' and connect this to finger patterns and the number frame. • Focus on equal and unequal groups when comparing numbers. • Understand that two equal groups can be called a 'double' and connect this to finger patterns. • Sort odd and even numbers according to their 'shape'. • Continue to develop their understanding of the counting sequence and link cardinality and ordinality through the staircase pattern. • Order numbers and play track games. Join in with verbal counts beyond 20, hearing the repeated pattern within the counting numbers.		• Compare quantities and numbers, including sets of objects which have different attributes. • Continue to develop a sense of magnitude, e.g. knowing that 8 is quite a lot more than 2, but 4 is only a little bit more than 2. • Begin to generalise about 'one more than' and 'one less than' numbers within 10. • Continue to identify when sets can be subitised and when counting is necessary. Develop conceptual subitising skills including when using a rekenrek.	
Progression: Number land and White Rose.	Number Land Number 1, 2, 3 and 4. Getting to know you	Number Land Number 1, 2, 3 and 4. It's me 1, 2, 3! Representing 1, 2 and 3.	Number Land Number 5, 6, 7, 8, 9 and 10. Alive in 5! Introducing zero	Number Land Number 5, 6, 7, 8, 9 and 10. Building 9 and 10 Counting to 9 and 10	To 20 and beyond Build numbers beyond 10 Count patterns beyond 10 Spatial reasoning	Find my pattern Doubling Sharing and grouping Even and odd Spatial reasoning Visualise and build

	Just like me! Match and sort Compare amounts Compare size, mass, and capacity Exploring pattern	Comparing 1, 2 and 3. Composition of 1, 2 and 3. Circles and triangles. Positional Language. Light & Dark Representing numbers to 5. One more or less. Shapes with 4 sides. Time	Comparing numbers to 5 Composition of 4 and 5 Compare mass Compare capacity Growing 6, 7, 8 6, 7 and 8 Combining two amounts Making pairs Length and height Time	Comparing numbers to 10 Bonds to 10 3D shapes Spatial awareness Patterns Consolidation	Match, rotate, manipulate First, then, now Adding more Taking away Spatial reasoning Compose and decompose	On the move Deepening understanding Patterns and relationships Spatial mapping Mapping
Vocabulary	See separate vocabulary sheets.					
Enhancements	TT Rock stars school launch		NSPCC Number day 7th February 2025	British science week March 7th – 16th 2025	National numeracy day 22nd May 2025	
Year Group 1	**Autumn**		**Spring**		**Summer**	
	Units – Place Value within 10, Addition and Subtraction, Geometry: Shape		**Units – Place Value within 20, Addition and subtraction within 20, Place value within 50, Length and height, Mass and volume.**		**Units – Multiplication and division, Fractions, Geometry: Position and direction, Place Value to 100, Money, Time.**	

Steps of progression.	**Place Value - Week 1-5** Step 1 Sort objects Step 2 Count objects Step 3 Count objects from a larger group Step 4 Represent objects Step 5 Recognise numbers as words Step 6 Count on from any number Step 7 1 more Step 8 Count backwards within 10 Step 9 1 less Step 10 Compare groups by matching Step 11 Fewer, more, same Step 12 Less than, greater than, equal to Step 13 Compare numbers Step 14 Order objects and numbers Step 15 The number line	**Place Value - Week 1-3** Step 1 Count within 20 Step 2 Understand 10 Step 3 Understand 11, 12 and 13 Step 4 Understand 14, 15 and 16 Step 5 Understand 17, 18 and 19 Step 6 Understand 20 Step 7 1 more and 1 less Step 8 The number line to 20 Step 9 Use a number line to 20 Step 10 Estimate on a number line to 20 Step 11 Compare numbers to 20 Step 12 Order numbers to 20	**Multiplication and division - Week 1-3** Step 1 Count in 2s Step 2 Count in 10s Step 3 Count in 5s Step 4 Recognise equal groups Step 5 Add equal groups Step 6 Make arrays Step 7 Make doubles Step 8 Make equal groups – grouping Step 9 Make equal groups – sharing

National Curriculum links.	**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.** **Count to and across 100, forwards and backwards, beginning with zero or 1, or from any given number.** **Compare numbers using and = signs Read and write numbers from 1 to 20 in numerals and words.**	**Count to and across 100, forwards and backwards, beginning with zero or 1, or from any given number.** **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.** **Count, read and write numbers to 100 in numerals; count in multiples of 2s, 5s and 10s** **Read and write numbers from 1 to 20 in numerals and words** **Given a number, identify 1 more and 1 less**	**Count, read and write numbers to 100 in numerals; count in multiples of 2s, 5s and 10s** **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.**
Steps of progression.	**Addition and subtraction - Week 6-10** Step 1 Introduce parts and wholes Step 2 Part-whole model Step 3 Write number sentences Step 4 Fact families – addition facts Step 5 Number bonds within 10 Step 6 Systematic number bonds within 10 Step 7 Number bonds to 10 Step 8 Addition – add together Step 9 Addition – add more Step 10 Addition problems Step 11 Find a part Step 12 Subtraction – find a part Step 13 Fact families – the eight facts Step 14 Subtraction – take away/cross out (How many left?) Step 15 Take away (How many left?) Step 16 Subtraction on a number line	**Addition and subtraction within 20 -4-6** Step 1 Add by counting on within 20 Step 2 Add ones using number bonds Step 3 Find and make number bonds to 20 Step 4 Doubles Step 5 Near doubles Step 6 Subtract ones using number bonds Step 7 Subtraction – counting back Step 8 Subtraction – finding the difference Step 9 Related facts Step 10 Missing number problems	**Fractions - Week 4-5** Step 1 Recognise a half of an object or a shape Step 2 Find a half of an object or a shape Step 3 Recognise a half of a quantity Step 4 Find a half of a quantity Step 5 Recognise a quarter of an object or a shape Step 6 Find a quarter of an object or a shape Step 7 Recognise a quarter of a quantity Step 8 Find a quarter of a quantity

	Step 17 Add or subtract 1 or 2		
National Curriculum links.	**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.** **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 1-digit and 2-digit numbers to 20, including zero**	**Read, write and interpret mathematical statements involving addition (+), subtraction (–) and equals (=) signs** **Add and subtract 1-digit and 2-digit numbers to 20, including zero** **Represent and use number bonds and related subtraction facts within 20** **Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = ? – 9**	**Recognise, find and name a half as one of two equal parts of an object, shape or quantity**
Steps of progression.	**Geometry: Shape – Week 11** Step 1 Recognise and name 3-D shapes Step 2 Sort 3-D shapes Step 3 Recognise and name 2-D shapes Step 4 Sort 2-D shapes Step 5 Patterns with 2-D and 3-D shapes **Consolidation - Week 12**	**Place value within 50 – 7-8** Step 1 Count from 20 to 50 Step 2 20, 30, 40 and 50 Step 3 Count by making groups of tens Step 4 Groups of tens and ones Step 5 Partition into tens and ones Step 6 The number line to 50 Step 7 Estimate on a number line to 50 Step 8 1 more, 1 less	**Geometry: Position and direction- Week 6** Step 1 Describe turns Step 2 Describe position – left and right Step 3 Describe position – forwards and backwards Step 4 Describe position – above and below Step 5 Ordinal numbers

National Curriculum links.	**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]**	**Count to and across 100, forwards and backwards, beginning with zero or 1, or from any given number** **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** **Count, read and write numbers to 100 in numerals; count in multiples of 2s, 5s and 10s** **Given a number, identify 1 more and 1 less**	**Describe position, direction and movement, including whole, half, quarter and three-quarter turns.** **Use the language of position, direction and motion, including: left and right, top, middle and bottom, on top of, in front of, above, between, around, near, close and far, up and down, forwards and backwards, inside and outside (non-statutory guidance)** **Practise counting (1, 2, 3…), ordering (for example, 1st, 2nd, 3rd …) (non-statutory guidance)**

Steps of progression		**Length and height – 9 - 10** Step 1 Compare lengths and heights Step 2 Measure length using objects Step 3 Measure length in centimetres	**Place Value to 100 – Week 7-8** Step 1 Count from 50 to 100 Step 2 Tens to 100 Step 3 Partition into tens and ones Step 4 The number line to 100 Step 5 1 more, 1 less Step 6 Compare numbers with the same number of tens Step 7 Compare any two numbers
National Curriculum links.		**Compare, describe and solve practical problems for: lengths and height; mass/weight; capacity and volume; time** **Measure and begin to record the following: lengths and heights; mass/weight; capacity and volume; time**	**Count to and across 100, forwards and backwards, beginning with zero or 1, or from any given number** **Count, read and write numbers to 100 in numerals; count in multiples of 2s, 5s and 10s** **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**

Steps of progression		**Mass and volume – 11 – 12** Step 1 Heavier and lighter Step 2 Measure mass Step 3 Compare mass Step 4 Full and empty Step 5 Compare volume Step 6 Measure capacity Step 7 Compare capacity	**Measurement: Money - Week 9** Step 1 Unitising Step 2 Recognise coins Step 3 Recognise notes Step 4 Count in coins
National Curriculum links.		**Compare, describe and solve practical problems for: lengths and heights; mass/weight; capacity and volume; time** **Measure and begin to record the following: lengths and heights; mass/weights; capacity and volume; time.**	**Recognise and know the value of different denominations of coins and notes** **Count, read and write numbers to 100 in numerals; count in multiples of 2s, 5s and 10s** **National Curriculum links.**
Steps of progression			**Measurement: Time Week 10-11** Step 1 Before and after Step 2 Days of the week Step 3 Months of the year Step 4 Hours, minutes and seconds Step 5 Tell the time to the hour Step 6 Tell the time to the half hour
National Curriculum links.			**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** **Compare, describe and solve practical problems for time** **Measure and begin to record time (hours, minutes, seconds)**

					Tell the time to the hour and half past the hour and draw the hands on a clockface to show these times	
Vocabulary	See separate vocabulary sheets.					
Enhancements	TT Rock stars school launch		NSPCC Number day 7th February 2025	British science week March 7th – 16th 2025	National numeracy day 22nd May 2025	

Year Group 2	**Autumn**	**Spring**	**Summer**
	Units – Place Value, shape, addition and subtraction.	**Units – Money, multiplication and division, Measures – Length and height, measures – mass, capacity and temperature.**	**Units – Fractions, time, statistics, position and direction.**
Steps of progression	**Place Value – weeks 1-4** Step 1 Numbers to 20 Step 2 Count objects to 100 by making 10s Step 3 Recognise tens and ones Step 4 Use a place value chart Step 5 Partition numbers to 100 Step 6 Write numbers to 100 in words Step 7 Flexibly partition numbers to 100 Step 8 Write numbers to 100 in expanded form Step 9 10s on the number line to 100	**Money – weeks 1 -2** Step 1 Count money – pence Step 2 Count money – pounds (notes and coins) Step 3 Count money – pounds and pence Step 4 Choose notes and coins Step 5 Make the same amount Step 6 Compare amounts of money Step 7 Calculate with money Step 8 Make a pound Step 9 Find change Step 10 Two-step problems	**Fractions – weeks 1 - 3** Step 1 Introduction to parts and whole Step 2 Equal and unequal parts Step 3 Recognise a half Step 4 Find a half Step 5 Recognise a quarter Step 6 Find a quarter Step 7 Recognise a third Step 8 Find a third Step 9 Find the whole Step 10 Unit fractions

	Step 10 10s and 1s on the number line to 100 Step 11 Estimate numbers on a number line Step 12 Compare objects Step 13 Compare numbers Step 14 Order objects and numbers Step 15 Count in 2s, 5s and 10s Step 16 Count in 3s		Step 11 Non-unit fractions Step 12 Recognise the equivalence of a half and two-quarters Step 13 Recognise three-quarters Step 14 Find three-quarters Step 15 Count in fractions up to a whole
National Curriculum links.	**Read and write numbers from 1 to 20 in numerals and words (Y1)** **Read and write numbers to at least 100 in numerals and in words** **Identify, represent and estimate numbers using different representations, including the number line** **Count in steps of 2, 3 and 5 from 0, and in 10s from any number, forward and backward** **Recognise the place value of each digit in a 2-digit number (tens, ones)** **Compare and order numbers from 0 up to 100; use <, > and = signs**	**Recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value** **Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change**	**Recognise, find, name and write fractions third, quarter, half, three quarters of a length, shape, set of objects or quantity** **Write simple fractions, for example half of 6 = 3 and recognise the equivalence of 2/4 and ½**

Steps of progression	**Addition & Subtraction – wees 5-9** Step 1 Bonds to 10 Step 2 Fact families - addition and subtraction bonds within 20 Step 3 Related facts Step 4 Bonds to 100 (tens) Step 5 Add and subtract 1s Step 6 Add by making 10 Step 7 Add three 1-digit numbers Step 8 Add to the next 10 Step 9 Add across a 10 Step 10 Subtract across 10 Step 11 Subtract from a 10 Step 12 Subtract a 1-digit number from a 2-digit number (across a 10) Step 13 10 more, 10 less Step 14 Add and subtract 10s Step 15 Add two 2-digit numbers (not across a 10) Step 16 Add two 2-digit numbers (across a 10) Step 17 Subtract two 2-digit numbers (not across a 10) Step 18 Subtract two 2-digit numbers (across a 10) Step 19 Mixed addition and subtraction Step 20 Compare number sentences Step 21 Missing number problems	**Multiplication and division – weeks 3 - 7** Step 1 Recognise equal groups Step 2 Make equal groups Step 3 Add equal groups Step 4 Introduce the multiplication symbol Step 5 Multiplication sentences Step 6 Use arrays Step 7 Make equal groups – grouping Step 8 Make equal groups – sharing Step 9 The 2 times-table Step 10 Divide by 2 Step 11 Doubling and halving Step 12 Odd and even numbers Step 13 The 10 times-table Step 14 Divide by 10 Step 15 The 5 times-table Step 16 Divide by 5 Step 17 The 5 and 10 times-tables	**Time – weeks 4 - 6** Step 1 O'clock and half past Step 2 Quarter past and quarter to Step 3 Tell the time past the hour Step 4 Tell the time to the hour Step 5 Tell the time to 5 minutes Step 6 Minutes in an hour Step 7 Hours in a day

National Curriculum links.	**Represent and use number bonds and related subtraction facts within 20 (Y1)** **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 2-digit number and 1s, a 2-digit number and 10s, two 2-digit numbers and adding three 1-digit numbers** **Compare and order numbers from 0 up to 100; use <, > and = signs**	**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** **Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers**	**Tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clockface to show these times** **Tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clockface to show these times.** **Know the number of minutes in an hour and the number of hours in a day.**
Steps of progression	**Geometry – shape – weeks 10 - 12** Step 1 Recognise 2-D and 3-D shapes Step 2 Count sides on 2-D shapes Step 3 Count vertices on 2-D shapes Step 4 Draw 2-D shapes Step 5 Lines of symmetry on shapes Step 6 Use lines of symmetry to complete shapes Step 7 Sort 2-D shapes Step 8 Count faces on 3-D shapes Step 9 Count edges on 3-D shapes Step 10 Count vertices on 3-D shapes Step 11 Sort 3-D shapes Step 12 Make patterns with 2-D and 3-D shapes	**Measures – Length and height – weeks 8 - 9** Step 1 Measure in centimetres Step 2 Measure in metres Step 3 Compare lengths and heights Step 4 Order lengths and heights Step 5 Four operations with lengths and heights.	**Statistics – weeks 7 - 8** Step 1 Make tally charts Step 2 Tables Step 3 Block diagrams Step 4 Draw pictograms (1–1) Step 5 Interpret pictograms (1–1) Step 6 Draw pictograms (2, 5 and 10) Step 7 Interpret pictograms (2, 5 and 10)

National Curriculum links.	**Identify and describe the properties of 2-D shapes, including the number of sides, and line symmetry in a vertical line** **Compare and sort common 2-D and 3-D shapes and everyday objects** **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**	**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 =** **Solve problems with addition and subtraction using concrete objects and pictorial representations, including those involving numbers, quantities and measures** **Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts**	**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.** **Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers.**
Steps of progression		**Measures – mass, capacity and temperature – weeks 10 - 12** Step 1 Compare mass Step 2 Measure in grams Step 3 Measure in kilograms Step 4 Four operations with mass Step 5 Compare volume and capacity Step 6 Measure in millilitres Step 7 Measure in litres Step 8 Four operations with volume and capacity Step 9 Temperature	**Position and direction – weeks 9 - 10** Step 1 Language of position Step 2 Describe movement Step 3 Describe turns Step 4 Describe movement and turns Step 5 Shape patterns with turns

National Curriculum links.			**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 =**		**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)**	
					Consolidation weeks	
Vocabulary	See separate vocabulary sheets.					
Enhancements	TT Rock stars school launch		NSPCC Number day 7th February 2025	British science week March 7th – 16th 2025	National numeracy day 22nd May 2025	

Year Group 3	**Autumn**	**Spring**	**Summer**
	Units – Place value, Addition & Subtraction, Multiplication & Division	**Units – Multiplication & Division, Money, Statistics, Length & Perimeter, Fractions**	**Units – Fractions, money, time, shape, statistics.**

Steps of progression	**Place value – weeks 1-3** Step 1 Represent numbers to 100 Step 2 Partition numbers to 100 Step 3 Number line to 100 Step 4 Hundreds Step 5 Represent numbers to 1,000 Step 6 Partition numbers to 1,000 Step 7 Flexible partitioning of numbers to 1,000 Step 8 Hundreds, tens and ones Step 9 Find 1, 10 or 100 more or less Step 10 Number line to 1,000 Step 11 Estimate on a number line to 1,000 Step 12 Compare numbers to 1,000 Step 13 Order numbers to 1,000 Step 14 Count in 50s	**Multiplication and Division – Week 1-3** Step 1 Multiples of 10 Step 2 Related calculations Step 3 Reasoning about multiplication Step 4 Multiply a 2-digit number by a 1-digit number – no exchange Step 5 Multiply a 2-digit number by a 1-digit number – with exchange Step 6 Link multiplication and division Step 7 Divide a 2-digit number by a 1-digit number – no exchange Step 8 Divide a 2-digit number by a 1-digit number – flexible partitioning Step 9 Divide a 2-digit number by a 1-digit number – with remainders Step 10 Scaling Step 11 How many ways?	**Fractions – Week 1-2** Step 1 Add fractions Step 2 Subtract fractions Step 3 Partition the whole Step 4 Unit fractions of a set of objects Step 5 Non-unit fractions of a set of objects Step 6 Reasoning with fractions of an amount
National Curriculum links.	**Identify, represent and estimate numbers using different representations** **Recognise the place value of each digit in a 3-digit number (hundreds, tens, ones)** **Count from zero in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number.** **Read and write numbers up to 1,000 in numerals and words** **Compare and order numbers up to 1,000**	**Recall and use multiplication facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers (Y2)** **Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for 2-digit numbers times 1-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.**	**Add and subtract fractions with the same denominator within one whole** **Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators.**

Steps of progression	**Addition and subtraction – weeks 4-8** Step 1 Apply number bonds within 10 Step 2 Add and subtract 1s Step 3 Add and subtract 10s Step 4 Add and subtract 100s Step 5 Spot the pattern Step 6 Add 1s across a 10 Step 7 Add 10s across a 100 Step 8 Subtract 1s across a 10 Step 9 Subtract 10s across a 100 Step 10 Make connections Step 11 Add two numbers (no exchange) Step 12 Subtract two numbers (no exchange) Step 13 Add two numbers (across a 10) Step 14 Add two numbers (across a 100) Step 15 Subtract two numbers (across a 10) Step 16 Subtract two numbers (across a 100) Step 17 Add 2-digit and 3-digit numbers Step 18 Subtract a 2-digit number from a 3-digit number Step 19 Complements to 100 Step 20 Estimate answers Step 21 Inverse operations Step 22 Make decisions	**Length and perimeter – weeks 4-6** Step 1 Measure in metres and centimetres Step 2 Measure in millimetres Step 3 Measure in centimetres and millimetres Step 4 Metres, centimetres and millimetres Step 5 Equivalent lengths (metres and centimetres) Step 6 Equivalent lengths (centimetres and millimetres) Step 7 Compare lengths Step 8 Add lengths Step 9 Subtract lengths Step 10 What is perimeter? Step 11 Measure perimeter Step 12 Calculate perimeter	**Money – weeks 3-4** Step 1 Pounds and pence Step 2 Convert pounds and pence Step 3 Add money Step 4 Subtract money Step 5 Find change

National curriculum links.	**Add and subtract numbers mentally, including:** **• a 3-digit number and ones** **• a 3-digit number and tens** **• a 3-digit number and hundreds** **Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction** **Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.** **Estimate the answer to a calculation and use inverse operations to check answers.**	**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.**
Steps of progression	**Multiplication and division – weeks 9 - 12** Step 1 Multiplication – equal groups Step 2 Use arrays Step 3 Multiples of 2 Step 4 Multiples of 5 and 10 Step 5 Sharing and grouping Step 6 Multiply by 3 Step 7 Divide by 3 Step 8 The 3 times-table Step 9 Multiply by 4 Step 10 Divide by 4 Step 11 The 4 times-table Step 12 Multiply by 8 Step 13 Divide by 8 Step 14 The 8 times-table Step 15 The 2, 4 and 8 times-tables	**Fractions – weeks 7-9** Step 1 Understand the denominators of unit fractions Step 2 Compare and order unit fractions Step 3 Understand the numerators of non-unit fractions Step 4 Understand the whole Step 5 Compare and order non-unit fractions Step 6 Fractions and scales Step 7 Fractions on a number line Step 8 Count in fractions on a number line Step 9 Equivalent fractions on a number line Step 10 Equivalent fractions as bar models	**Time – weeks 5 -7** Step 1 Roman numerals to 12 Step 2 Tell the time to 5 minutes Step 3 Tell the time to the minute Step 4 Read time on a digital clock Step 5 Use am and pm Step 6 Years, months and days Step 7 Days and hours Step 8 Hours and minutes – use start and end times Step 9 Hours and minutes - use durations Step 10 Minutes and seconds Step 11 Units of time Step 12 Solve problems with time

National curriculum links.	**Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for 2-digit numbers times 1-digit numbers, using mental and progressing to formal written methods.** **Show that multiplication of two numbers can be done in any order (commutative) and division on one number by another cannot (Y2).** **Count in steps of 2, 3 and 5 from 0, and in 10s from any number, forward and backward (Y2)** **• Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers (Y2).** **Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables.**	**Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators.** **Compare and order unit fractions, and fractions with the same denominators.** **Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml).** **Recognise and show, using diagrams, equivalent fractions with small denominators.**	**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, am/pm, 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.**

Steps of progression		**Mass and capacity – weeks 10 - 12** Step 1 Use scales Step 2 Measure mass in grams Step 3 Measure mass in kilograms and grams Step 4 Equivalent masses (kilograms and grams) Step 5 Compare mass Step 6 Add and subtract mass Step 7 Measure capacity and volume in millilitres Step 8 Measure capacity and volume in litres and millilitres Step 9 Equivalent capacities and volumes (litres and millilitres) Step 10 Compare capacity and volume Step 11 Add and subtract capacity and volume	**Shape – weeks -8-9** Step 1 Turns and angles Step 2 Right angles Step 3 Compare angles Step 4 Measure and draw accurately Step 5 Horizontal and vertical Step 6 Parallel and perpendicular Step 7 Recognise and describe 2-D shapes Step 8 Draw polygons Step 9 Recognise and describe 3-D shapes Step 10 Make 3-D shapes

National curriculum links.		**Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g);volume/capacity (l/ml)**	**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.** **Measure the perimeter of simple 2-D shapes** **Draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them.** **Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)** **Identify horizontal and vertical lines and pairs of perpendicular and parallel lines.**
Steps of progression			**Statistics – weeks -10 - 11** Step 1 Interpret pictograms Step 2 Draw pictograms Step 3 Interpret bar charts Step 4 Draw bar charts Step 5 Collect and represent data Step 6 Two-way tables
National curriculum links.			**Interpret and present data using bar charts, pictograms and tables** **Solve one-step and two-step questions using information presented in scaled bar charts and pictograms and tables.**
			consolidation

Vocabulary	See separate vocabulary sheets.					
Enhancements	TT Rock stars school launch		NSPCC Number day 7th February 2025	British Science week 7th – 16th March 2025	National numeracy day 22nd May 2025	

Year Group 4	**Autumn**	**Spring**	**Summer**
	Unit – Place Value, Addition & Subtraction, Area, Multiplication & Division	**Unit – Multiplication & Division, Length and perimeter, Fractions, Decimals**	**Unit – Decimals, Money, Time, Shape, Statistics, Position & Direction**
Steps of progression	**Place Value -Week 1-4** Step 1 Represent numbers to 1,000 Step 2 Partition numbers to 1,000 Step 3 Number line to 1,000 Step 4 Thousands Step 5 Represent numbers to 10,000 Step 6 Partition numbers to 10,000 Step 7 Flexible partitioning of numbers to 10,000 Step 8 Find 1, 10, 100, 1,000 more or less Step 9 Number line to 10,000 Step 10 Estimate on a number line to 10,000 Step 11 Compare numbers to 10,000 Step 12 Order numbers to 10,000 Step 13 Roman numerals Step 14 Round to the nearest 10 Step 15 Round to the nearest 100 Step 16 Round to the nearest 1,000 Step 17 Round to the nearest 10, 100 or 1,000	**Multiplication & Division – Week 1-3** Step 1 Factor pairs Step 2 Use factor pairs Step 3 Multiply by 10 Step 4 Multiply by 100 Step 5 Divide by 10 Step 6 Divide by 100 Step 7 Related facts – multiplication and division Step 8 Informal written methods for multiplication Step 9 Multiply a 2-digit number by a 1-digit number Step 10 Multiply a 3-digit number by a 1-digit number Step 11 Divide a 2-digit number by a 1-digit number (1) Step 12 Divide a 2-digit number by a 1-digit number (2) Step 13 Divide a 3-digit number by a 1-digit number Step 14 Correspondence problems Step 15 Efficient multiplication	**Decimals -Week 1-2** Step 1 Make a whole with tenths Step 2 Make a whole with hundredths Step 3 Partition decimals Step 4 Flexibly partition decimals Step 5 Compare decimals Step 6 Order decimals Step 7 Round to the nearest whole number Step 8 Halves and quarters as decimals

National curriculum links.	**Read and write numbers up to 1,000 in numerals and words (Y3)** **Identify, represent and estimate numbers using different representations.** **Recognise the place value of each digit in a 3-digit number (hundreds, tens, ones) (Y3)** **Count in multiples of 6, 7, 9, 25 and 1,000** **Find 1,000 more or less than a given number** **Order and compare numbers beyond 1,000** **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.** **Round any number to the nearest 10, 100 or 1,000**	**Recognise and use factor pairs and commutativity in mental calculations.** **Recall multiplication and division facts for multiplication tables up to 12 × 12** **Multiply and divide whole numbers and those involving decimals by 10, 100 and 1,000 (Y5)** **Solve problems involving multiplying and adding, including using the** **distributive law to multiply 2-digit numbers by 1 digit, integer scaling problems and harder correspondence problems such as n objects are** **connected to m objects.** **Multiply 2-digit and 3-digit numbers by a 1-digit number using formal written layout.** **Use place value, known and derived facts to multiply and divide** **mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together 3 numbers.**	**Recognise and write decimal equivalents of any number of tenths or hundredths** **Solve simple measure and money problems involving fractions and decimals to 2 decimal places.** **Compare numbers with the same number of decimal places up to 2** **Round decimals with 1 decimal place to the nearest whole number decimal places.** **Recognise and write decimal equivalents to quarter, half and three quarters.**
Steps of progression	**Addition & Subtraction – Week 5-7** Step 1 Add and subtract 1s, 10s, 100s and 1,000s Step 2 Add up to two 4-digit numbers – no exchange Step 3 Add two 4-digit numbers – one exchange Step 4 Add two 4-digit numbers – more than one exchange Step 5 Subtract two 4-digit numbers – no exchange Step 6 Subtract two 4-digit numbers – one exchange Step 7 Subtract two 4-digit numbers – more than one exchange Step 8 Efficient subtraction Step 9 Estimate answers Step 10 Checking strategies	**Length and perimeter – weeks 4-5** Step 1 Measure in kilometres and metres Step 2 Equivalent lengths (kilometres and metres) Step 3 Perimeter on a grid Step 4 Perimeter of a rectangle Step 5 Perimeter of rectilinear shapes Step 6 Find missing lengths in rectilinear shapes Step 7 Calculate perimeter of rectilinear shapes Step 8 Perimeter of regular polygons Step 9 Perimeter of polygons	**Measurement: Money - Week 3-4** Step 1 Write money using decimals Step 2 Convert between pounds and pence Step 3 Compare amounts of money Step 4 Estimate with money Step 5 Calculate with money Step 6 Solve problems with money

National curriculum links.	**Add and subtract numbers with up to four digits using the formal written methods of columnar addition and subtraction where appropriate** **Solve addition and subtraction two-step problems in contexts,** **deciding which operations and methods to use and why.** **Estimate and use inverse operations to check answers to a calculation**	**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.**	**Estimate, compare and calculate different measures, including money in pounds and pence.**
Steps of progression	**Area – week 8** Step 1 What is area? Step 2 Count squares Step 3 Make shapes Step 4 Compare areas	**Fractions – Week 6-9** Step 1 Understand the whole Step 2 Count beyond 1 Step 3 Partition a mixed number Step 4 Number lines with mixed numbers Step 5 Compare and order mixed numbers Step 6 Understand improper fractions Step 7 Convert mixed numbers to improper fractions Step 8 Convert improper fractions to mixed numbers Step 9 Equivalent fractions on a number line Step 10 Equivalent fraction families Step 11 Add two or more fractions Step 12 Add fractions and mixed numbers Step 13 Subtract two fractions Step 14 Subtract from whole amounts Step 15 Subtract from mixed numbers	**Measurement: Time – Week 5 - 6** Step 1 Years, months, weeks and days Step 2 Hours, minutes and seconds Step 3 Convert between analogue and digital times Step 4 Convert to the 24-hour clock Step 5 Convert from the 24-hour clock

National curriculum links.	**Find the area of rectilinear shapes by counting squares**	**Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators (Y3)** **Recognise and show, using diagrams, families of common equivalent fractions** **Add and subtract fractions with the same denominator.**	**Solve problems involving converting from hours to minutes, minutes to seconds, years to months, weeks to days.** **Read, write and convert time between analogue and digital 12- and 24-hour clocks.**
Steps of progression	**Multiplication & Division – Week 9-11** Step 1 Multiples of 3 Step 2 Multiply and divide by 6 Step 3 6 times-table and division facts Step 4 Multiply and divide by 9 Step 5 9 times-table and division facts Step 6 The 3, 6 and 9 times-tables Step 7 Multiply and divide by 7 Step 8 7 times-table and division facts Step 9 11 times-table and division facts Step 10 12 times-table and division facts Step 11 Multiply by 1 and 0 Step 12 Divide a number by 1 and itself Step 13 Multiply three numbers	**Decimals – Week 10 – 12** Step 1 Tenths as fractions Step 2 Tenths as decimals Step 3 Tenths on a place value chart Step 4 Tenths on a number line Step 5 Divide a 1-digit number by 10 Step 6 Divide a 2-digit number by 10 Step 7 Hundredths as fractions Step 8 Hundredths as decimals Step 9 Hundredths on a place value chart Step 10 Divide a 1- or 2-digit number by 100	**Geometry: Properties of Shape – Week 8-9** Step 1 Understand angles as turns Step 2 Identify angles Step 3 Compare and order angles Step 4 Triangles Step 5 Quadrilaterals Step 6 Polygons Step 7 Lines of symmetry Step 8 Complete a symmetric figure

National curriculum links.	**Recall multiplication and division facts for multiplication tables up to 12 × 12** **Recognise and use factor pairs and commutativity in mental calculations.** **Count in multiples of 6, 7, 9, 25 and 1,000** **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**	**Count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing 1-digit numbers or quantities by 10 (Y3)** **Recognise and write decimal equivalents of any number of tenths or hundredths.** **Compare numbers with the same number of decimal places up to 2 decimal places.** **Find the effect of dividing a 1- or 2-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and Hundredths.** **Count up and down in hundredths; recognise that hundredths arise when dividing an object by 100 and dividing tenths by 10** **• Recognise and show, using diagrams, families of common equivalent fractions.**	**Recognise angles as a property of shape or a description of a turn (Y3)** **Identify acute and obtuse angles and compare and order angles up to two right angles by size.** **Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes.** **Identify lines of symmetry in 2-D shapes presented in different orientations.** **Complete a simple symmetric figure with respect to a specific line of symmetry.**
	Consolidation		
Steps of progression			**Statistics – week 10** Step 1 Interpret charts Step 2 Comparison, sum and difference Step 3 Interpret line graphs Step 4 Draw line graphs
National curriculum links.			**Interpret and present discrete and continuous data using appropriate**

			graphical methods, including bar charts and time graphs. **Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and line graphs** **Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.**
Steps of progression			**Geometry – position and direction – weeks 11-12** Step 1 Describe position using coordinates Step 2 Plot coordinates Step 3 Draw 2-D shapes on a grid Step 4 Translate on a grid Step 5 Describe translation on a grid

National curriculum links.					**Describe positions on a 2-D grid as coordinates in the first quadrant.** **Describe positions on a 2-D grid as coordinates in the first quadrant** **Plot specified points and draw sides to complete a given polygon.** **Describe movements between positions as translations of a given unit to the left/right and up/down.**	
Vocabulary	See separate vocabulary sheets.					
Enhancements	TT Rock stars school launch		NSPCC Number day 7th February 2025	British Science week 7th – 16th March 2025	National numeracy day 22nd May 2025	

Year Group 5	**Autumn**	**Spring**	**Summer**
	Unit – Place Value, Addition & Subtraction, Multiplication & Division, fractions.	**Unit – Multiplication & Division, Fractions, Decimals & Percentages, perimeter and area, statistics.**	**Unit – Shape,**
Steps of progression	**Place value – Week 1-3** Step 1 Roman numerals to 1,000 Step 2 Numbers to 10,000 Step 3 Numbers to 100,000 Step 4 Numbers to 1,000,000 Step 5 Read and write numbers to 1,000,000 Step 6 Powers of 10 Step 7 10/100/1,000/10,000/100,000 more or less Step 8 Partition numbers to 1,000,000 Step 9 Number line to 1,000,000 Step 10 Compare and order numbers to 100,000 Step 11 Compare and order numbers to 1,000,000 Step 12 Round to the nearest 10, 100 or 1,000	**Multiplication & Division – Week 1-3** Step 1 Multiply up to a 4-digit number by a 1-digit number Step 2 Multiply a 2-digit number by a 2-digit number (area model) Step 3 Multiply a 2-digit number by a 2-digit number Step 4 Multiply a 3-digit number by a 2-digit number Step 5 Multiply a 4-digit number by a 2-digit number Step 6 Solve problems with multiplication Step 7 Short division	**Shape – weeks** Step 1 Understand and use degrees Step 2 Classify angles Step 3 Estimate angles Step 4 Measure angles up to 180° Step 5 Draw lines and angles accurately Step 6 Calculate angles around a point Step 7 Calculate angles on a straight line Step 8 Lengths and angles in shapes Step 9 Regular and irregular polygons Step 10 3-D shapes

	Step 13 Round within 100,000 Step 14 Round within 1,000,000	Step 8 Divide a 4-digit number by a 1-digit number Step 9 Divide with remainders Step 10 Efficient division Step 11 Solve problems with multiplication and division	
National curriculum links.	**Read Roman numerals to 1,000 (M) and recognise years written in Roman numerals.** **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.** **Solve number problems and practical problems involving the above** **Round any number up to 1,000,000 to the nearest 10, 100, 1,000, 10,000 and 100,000.**	**Multiply numbers up to four digits by a 1- or 2-digit number using a formal written method, including long multiplication for 2-digit numbers.** **Divide up to four digits by a 1-digit number using the formal written method of short division and interpret remainders appropriately for the context.** **Solve problems involving multiplication and division, including using their knowledge of factors and multiples, squares and cubes.**	**Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles.** **Draw given angles, and measure them in degrees (°)** **Identify angles at a point and 1 whole turn (total 360°)** **Identify: angles at a point and 1 whole turn (total 360°); angles at a point on a straight line and half a turn (total 180°)** **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 3-D shapes, including cubes and other cuboids, from 2-D representations.**
Steps of progression	**Addition & Subtraction – Week 4-5** Step 1 Mental strategies Step 2 Add whole numbers with more than four digits Step 3 Subtract whole numbers with more than four digits Step 4 Round to check answers Step 5 Inverse operations (addition and subtraction)	**Fractions – Week 4-9** Step 1 Multiply a unit fraction by an integer Step 2 Multiply a non-unit fraction by an integer Step 3 Multiply a mixed number by an integer Step 4 Calculate a fraction of a quantity Step 5 Fraction of an amount Step 6 Find the whole Step 7 Use fractions as operators	**Position and direction – weeks** Step 1 Read and plot coordinates Step 2 Problem solving with coordinates Step 3 Translation Step 4 Translation with coordinates Step 5 Lines of symmetry Step 6 Reflection in horizontal and vertical lines

	Step 6 Multi-step addition and subtraction problems Step 7 Compare calculations Step 8 Find missing numbers		
National curriculum links.	**Add and subtract numbers mentally with increasingly large numbers.** **Add and subtract whole numbers with more than four digits, including using formal written methods (columnar addition and subtraction)** **Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.** **Round any number up to 1,000,000 to the nearest 10, 100, 1,000, 10,000 and 100,000** **Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy.**	**Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams.** **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 (Y4)**	**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.**
Steps of progression	**Multiplication and division – weeks** Step 1 Multiples Step 2 Common multiples Step 3 Factors Step 4 Common factors Step 5 Prime numbers Step 6 Square numbers Step 7 Cube numbers Step 8 Multiply by 10, 100 and 1,000 Step 9 Divide by 10, 100 and 1,000 Step 10 Multiples of 10, 100 and 1,000	**Decimals & Percentages – Week 10-11** Step 1 Decimals up to 2 decimal places Step 2 Equivalent fractions and decimals (tenths) Step 3 Equivalent fractions and decimals (hundredths) Step 4 Equivalent fractions and decimals Step 5 Thousandths as fractions Step 6 Thousandths as decimals Step 7 Thousandths on a place value chart Step 8 Order and compare decimals (same number of decimal places) Step 9 Order and compare any decimals with up to 3 decimal places Step 10 Round to the nearest whole number Step 11 Round to 1 decimal place Step 12 Understand percentages	**Decimals – weeks** Step 1 Use known facts to add and subtract decimals within 1 Step 2 Complements to 1 Step 3 Add and subtract decimals across 1 Step 4 Add decimals with the same number of decimal places Step 5 Subtract decimals with the same number of decimal places Step 6 Add decimals with different numbers of decimal places Step 7 Subtract decimals with different numbers of decimal places Step 8 Efficient strategies for adding and subtracting decimals Step 9 Decimal sequences

		Step 13 Percentages as fractions Step 14 Percentages as decimals Step 15 Equivalent fractions, decimals and percentages	Step 10 Multiply by 10, 100 and 1,000 Step 11 Divide by 10, 100 and 1,000 Step 12 Multiply and divide decimals – missing values
National curriculum links.	**Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers.** **Solve problems involving multiplication and division, including using their knowledge of factors and multiples, squares and cubes.** **Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers** **Establish whether a number up to 100 is prime and recall prime numbers up to 19.** **Recognise and use square numbers and cube numbers, and the notation for squared (2) and cubed (3).** **Multiply and divide whole numbers and those involving decimals by 10, 100 and 1,000.** **Multiply and divide numbers mentally, drawing upon known facts.**	**Read, write, order and compare numbers with up to 3 decimal places.** **Read and write decimal numbers as fractions.** **Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths.** **Solve problems which require knowing percentage and decimal equivalents of 1/2 , 1/4 , 1/5 , 2/5 , 4/5 and those fractions with a denominator of a multiple of 10 or 25.** **Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents.** **Solve problems involving numbers up to 3 decimal places.** **Round decimals with 2 decimal places to the nearest whole number and to 1 decimal place.** **Recognise the per cent symbol (%) and understand that per cent** **relates to "number of parts per 100", and write percentages as a fraction with denominator 100, and as a decimal fraction.** **Recognise the per cent symbol (%) and understand that per cent**	**Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents** **Solve problems involving number up to 3 decimal places.** **Read, write, order and compare numbers with up to 3 decimal places.** **Multiply and divide whole numbers and those involving decimals by 10, 100 and 1,000.**

		relates to "number of parts per 100", and write percentages as a fraction with denominator 100, and as a decimal fraction.	

Steps of progression	**Fractions - weeks** Step 1 Find fractions equivalent to a unit fraction Step 2 Find fractions equivalent to a non-unit fraction Step 3 Recognise equivalent fractions Step 4 Convert improper fractions to mixed numbers Step 5 Convert mixed numbers to improper fractions Step 6 Compare fractions less than 1 Step 7 Order fractions less than 1 Step 8 Compare and order fractions greater than 1 Step 9 Add and subtract fractions with the same denominator Step 10 Add fractions within 1 Step 11 Add fractions with total greater than 1 Step 12 Add to a mixed number Step 13 Add two mixed numbers Step 14 Subtract fractions Step 15 Subtract from a mixed number Step 16 Subtract from a mixed number – breaking the whole Step 17 Subtract two mixed numbers	**Perimeter and area – weeks** Step 1 Perimeter of rectangles Step 2 Perimeter of rectilinear shapes Step 3 Perimeter of polygons Step 4 Area of rectangles Step 5 Area of compound shapes Step 6 Estimate area	**Negative numbers – weeks** Step 1 Understand negative numbers Step 2 Count through zero in 1s Step 3 Count through zero in multiples Step 4 Compare and order negative numbers Step 5 Find the difference

	Step 16 Subtract from a mixed number – breaking the whole Step 17 Subtract two mixed numbers		
National curriculum links.	**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.** **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.** **Add and subtract fractions with the same denominator, and denominators that are multiples of the same number.**	**Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres.** **Calculate and compare the area of rectangles (including squares), including using standard units, square centimetres (cm2) and square metres (m2), and estimate the area of irregular shapes.**	**Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero.**
Steps of progression		**Statistics – weeks** Step 1 Draw line graphs Step 2 Read and interpret line graphs Step 3 Read and interpret tables Step 4 Two-way tables Step 5 Read and interpret timetables	**Measuring: Converting Units – Week 9-10** Step 1 Kilograms and kilometres Step 2 Millimetres and millilitres Step 3 Convert units of length Step 4 Convert between metric and imperial units Step 5 Convert units of time Step 6 Calculate with timetables

National curriculum links.			**Solve comparison, sum and difference problems using information presented in a line graph.** **Complete, read and interpret information in tables, including timetables.**		**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.** **Solve problems involving converting between units of time.**	
Steps of progression **National curriculum links.**					**Measurement: Volume – Week 11** Step 1 Cubic centimetres Step 2 Compare volume Step 3 Estimate volume Step 4 Estimate capacity **Estimate volume [for example, using 1 cm3 blocks to build cuboids (including cubes)] and capacity.** **Estimate volume and capacity [for example, using water].**	
Vocabulary	See separate vocabulary sheets.					
Enhancements	TT Rock stars school launch	Mount Carmel Maths quiz for UKS2	NSPCC Number day 7th February 2025	British Science week 7th – 16th March 2025	National numeracy day 22nd May 2025	

Year Group 6	Autumn **Unit – Place Value, Four operations, Fractions, Converting units.**	Spring **Unit – Ratio, algebra, decimals, fractions, decimals and percentages, area, perimeter and volume, statistics.**	Summer **Unit – Shape, position and direction, projects and consolidation.**
Steps of progression	**Place Value – Week 1-2** Step 1 Numbers to 1,000,000 Step 2 Numbers to 10,000,000 Step 3 Read and write numbers to 10,000,000 Step 4 Powers of 10 Step 5 Number line to 10,000,000 Step 6 Compare and order any integers Step 7 Round any integer Step 8 Negative numbers	**Ratio – weeks 1-2** Step 1 Add or multiply? Step 2 Use ratio language Step 3 Introduction to the ratio symbol Step 4 Ratio and fractions Step 5 Scale drawing Step 6 Use scale factors Step 7 Similar shapes Step 8 Ratio problems Step 9 Proportion problems Step 10 Recipes	Shape – weeks – 1-3 Step 1 Measure and classify angles Step 2 Calculate angles Step 3 Vertically opposite angles Step 4 Angles in a triangle Step 5 Angles in a triangle – special cases Step 6 Angles in a triangle – missing angles Step 7 Angles in a quadrilateral Step 8 Angles in polygons Step 9 Circles Step 10 Draw shapes accurately Step 11 Nets of 3-D shapes
National curriculum links.	**Read, write, order and compare numbers up to 10,000,000 and determine the value of each digit** **Solve number and practical problems that involve the above** **Round any whole number to a required degree of accuracy_Use negative numbers in context, and calculate intervals across zero**	**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 unequal sharing and grouping using knowledge of fractions and multiples.** **Solve problems involving similar shapes where the scale factor is known or can be found.**	**Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles** **Draw given angles, and measure them in degrees (°) (Y5)** **Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles (Y5)** **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** **Draw 2-D shapes using given dimensions and angles**

			Recognise, describe and build simple 3-D shapes, including making nets
Steps of progression	**Four Operations – Week 3-7** Step 1 Add and subtract integers Step 2 Common factors Step 3 Common multiples Step 4 Rules of divisibility Step 5 Primes to 100 Step 6 Square and cube numbers Step 7 Multiply up to a 4-digit number by a 2-digit number Step 8 Solve problems with multiplication Step 9 Short division Step 10 Division using factors Step 11 Introduction to long division Step 12 Long division with remainders Step 13 Solve problems with division Step 14 Solve multi-step problems Step 15 Order of operations Step 16 Mental calculations and estimation Step 17 Reason from known facts	**Algebra – weeks 3-4** Step 1 1-step function machines Step 2 2-step function machines Step 3 Form expressions Step 4 Substitution Step 5 Formulae Step 6 Form equations Step 7 Solve 1-step equations Step 8 Solve 2-step equations Step 9 Find pairs of values Step 10 Solve problems with two unknowns	**Position and direction – week 4** Step 1 The first quadrant Step 2 Read and plot points in four quadrants Step 3 Solve problems with coordinates Step 4 Translations Step 5 Reflections

National curriculum links.	**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** **Identify common factors, common multiples and prime numbers** **Multiply multi-digit numbers up to four digits by a 2-digit whole number using the formal written method of long multiplication** **Perform mental calculations, including with mixed operations and large numbers** **Divide numbers up to four digits by a 2-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context** **Divide numbers up to four digits by a 2-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** **Use their knowledge of the order of operations to carry out calculations involving the four operations**	**Use simple formulae** **Generate and describe linear number sequences** **Find pairs of numbers that satisfy an equation with two unknowns** **Enumerate possibilities of combinations of two variables** **Express missing number problems algebraically**	**Describe positions on the full coordinate grid (all four quadrants)** **Draw and translate simple shapes on the coordinate plane, and reflect them in the axes**

Steps of progression	**Fractions – Week 8-9** Step 1 Equivalent fractions and simplifying Step 2 Equivalent fractions on a number line Step 3 Compare and order (denominator) Step 4 Compare and order (numerator) Step 5 Add and subtract simple fractions Step 6 Add and subtract any two fractions Step 7 Add mixed numbers Step 8 Subtract mixed numbers Step 9 Multi-step problems	**Decimals – weeks 5-6** Step 1 Place value within 1 Step 2 Place value – integers and decimals Step 3 Round decimals Step 4 Add and subtract decimals Step 5 Multiply by 10, 100 and 1,000 Step 6 Divide by 10, 100 and 1,000 Step 7 Multiply decimals by integers Step 8 Divide decimals by integers 5 Step 9 Multiply and divide decimals in context	**Teacher led projects**
National curriculum links.	**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** **Identify common factors, common multiples and prime numbers** **Solve problems involving addition, subtraction, multiplication and division** **Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why**	**Identify the value of each digit in numbers given to 3 decimal places and multiply and divide numbers by 10, 100 and 1,000 giving answers up to 3 decimal places** **Solve problems which require answers to be rounded to specified degrees of accuracy** **Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why** **Multiply 1-digit numbers with up to 2 decimal places by whole numbers** **Use written division methods in cases where the answer has up to 2 decimal places**	
Steps of progression	**Fractions -weeks 10 - 11** Step 1 Multiply fractions by integers Step 2 Multiply fractions by fractions Step 3 Divide a fraction by an integer Step 4 Divide any fraction by an integer Step 5 Mixed questions with fractions Step 6 Fraction of an amount Step 7 Fraction of an amount – find the whole	**Fractions, decimals and percentages – weeks 7-8** Step 1 Decimal and fraction equivalents Step 2 Fractions as division Step 3 Understand percentages Step 4 Fractions to percentages Step 5 Equivalent fractions, decimals and percentages Step 6 Order fractions, decimals and percentages Step 7 Percentage of an amount – one step Step 8 Percentage of an amount – multi-step Step 9 Percentages – missing values	

National curriculum links.	**Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams (Y5)** **Multiply simple pairs of proper fractions, writing the answer in its simplest form** **Divide proper fractions by whole numbers.** **Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions** **Divide proper fractions by whole numbers** **Solve problems involving addition, subtraction, multiplication and division** **Associate a fraction with division and calculate decimal fraction equivalents**	**Use common factors to simplify fractions; use common multiples to express fractions in the same denomination.** **Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts** **Compare and order fractions, including fractions >1** **Solve problems involving the calculation of percentages and the use of percentages for comparison**	
Steps of progression	**Measures – converting units week 12** Step 1 Metric measures Step 2 Convert metric measures Step 3 Calculate with metric measures Step 4 Miles and kilometres Step 5 Imperial measures	**Area, perimeter and volume – weeks 9 - 10** Step 1 Shapes – same area Step 2 Area and perimeter Step 3 Area of a triangle – counting squares Step 4 Area of a right-angled triangle Step 5 Area of any triangle Step 6 Area of a parallelogram Step 7 Volume – counting cubes Step 8 Volume of a cuboid	
National curriculum links.	**Solve problems involving the calculation and conversion of units of measure, using decimal notation up to 3 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 3 decimal places**	**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 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**	

Steps of progression			**Statistics – weeks 11-12** Step 1 Line graphs Step 2 Dual bar charts Step 3 Read and interpret pie charts Step 4 Pie charts with percentages Step 5 Draw pie charts Step 6 The mean			
National curriculum links.			**Interpret and construct pie charts and line graphs and use these to solve problems** **Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs (Year 4)** **Calculate and interpret the mean as an average**			
Vocabulary	See separate vocabulary sheets.					
Enhancements	TT Rock stars school launch	Mount Carmel Maths quiz for UKS2	NSPCC Number day 7th February 2025	British Science week 7th – 16th March 2025	National numeracy day 22nd May 2025	

Addendum to the Maths Long Term Overview – school year 2024 – 2025

Mixed age class – Years 1 and 2 V2 – White Rose Maths	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	Year 1 topics - Place Value within 20 (weeks 1-3), Addition and Subtraction within 20 inc money (weeks 4 – 8) **Year 2 topics - Place Value within 200 (weeks 1-3), addition and subtraction within 100 inc money, (weeks 4-8)** **Adaptations:** *Practical resources/maths toolkits, visual representations, models and images. Focus group of year 2s (3 ch'n) to be moved on to Year 2 skills as and when appropriate. Challenge in each lesson.*	**Year 1 topics - Addition and Subtraction within 20 inc money (week 9), Place value and multiplication within 50 (weeks 10-12).** **Year 2 topics - addition and subtraction within 100 inc money (week 9), multiplication (weeks 10-12)** **Adaptations:** *Practical resources/maths toolkits, visual representations, models and images. Focus group of year 2s (3 ch'n) to be moved on to Year 2 skills as and when appropriate. Challenge in each lesson.*	**Year 1 topics - Division (weeks 1-2), place value within 100 (weeks 3-4), measurement length and height (week 5).** **Year 2 topics – Division (weeks 1-2), Statistics (weeks 3-4), measurement length and height (week 5).** **Adaptations:** *Practical resources/maths toolkits, visual representations, models and images. Focus group of year 2s (3 ch'n) to be moved on to Year 2 skills as and when appropriate. Challenge in each lesson.*	**Year 1 topics - Geometry/shape (weeks 6), fractions (weeks 9 – 11).** **Year 2 topics - Geometry/shape (weeks 6-8), -8), fractions (weeks 9 – 11).** **Adaptations:** *Practical resources/maths toolkits, visual representations, models and images. Focus group of year 2s (3 ch'n) to be moved on to Year 2 skills as and when appropriate. Challenge in each lesson.*	**Year 1 topics - Position and direction (week 1), Time (weeks 2 –3), problem solving efficient methods (weeks 4-5)** **Year 2 topics - Position and direction (week 1), (week 1), Time (weeks 2 –3), problem solving efficient methods (weeks 4-5)** **Adaptations:** *Practical resources/maths toolkits, visual representations, models and images. Focus group of year 2s (3 ch'n) to be moved on to Year 2 skills as and when appropriate. Challenge in each lesson.*	**Year 1 topics - weight and volume (weeks 6-8), consolidation (weeks 9 – 10)** **Year 2 topics - Mass, capacity and temperature (weeks 6-8), consolidation (weeks 9 – 10)** **Adaptations:** *Practical resources/maths toolkits, visual representations, models and images. Focus group of year 2s (3 ch'n) to be moved on to Year 2 skills as and when appropriate. Challenge in each lesson.*

Mixed age class – Years 2 and 3 V2 – White Rose Maths	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	Year 2 topics – place value within 100 (weeks 1-3), addition and subtraction inc money within 100 (weeks 4-8), **Year 3 topics – place value within 1000, (weeks 1-3), addition and subtraction inc money within 1000 (weeks 4-8)** **Adaptations:** *Practical resources/maths toolkits, visual representations, models and images.*	**Year 2 topics - addition and subtraction inc money within 100 (week 9), multiplication (weeks 10-12)** **Year 3 topics - addition and subtraction inc money within 1000 (week 9), multiplication (weeks 10-12)** **Adaptations:** *Practical resources/maths toolkits, visual representations, models and images.*	**Year 2 topics – division (weeks 1-2), statistics (weeks 3-4), length and height (week 5).** **Year 3 topics - Year 2 topics – division (weeks 1-2), statistics (weeks 3-4), length and height (week 5).** **Adaptations:** *Practical resources/maths toolkits, visual representations, models and images.*	**Year 2 topics – shape, position and direction (weeks 6-8), fractions (weeks 9-12)** **Year 3 topics – shape and perimeter (weeks 6-8), fractions (weeks 9-12)** **Adaptations:** *Practical resources/maths toolkits, visual representations, models and images.*	**Year 2 topics - time (weeks 1-2), problem solving efficient methods (weeks 3-5).** **Year 3 topics - time (weeks 1-2), problem solving efficient methods (weeks 3-5).** **Adaptations:** *Practical resources/maths toolkits, visual representations, models and images.*	**Year 2 topics – mass capacity and temperature (week 6-8, consolidation (weeks 9-12)** **Year 3 topics – mass capacity (week 6-8, consolidation (weeks 9-12)** **Adaptations:** *Practical resources/maths toolkits, visual representations, models and images.*