Maths PROGRESSION OVERVIEW

We have designed our curriculum so that it is Inspirational, Inclusive and Ambitious.
More information about our Curriculum Intent can be found on this page on our school website.

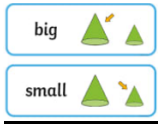
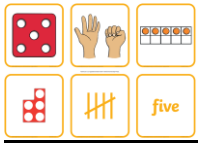
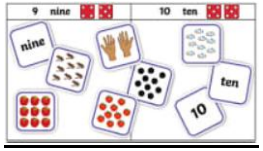
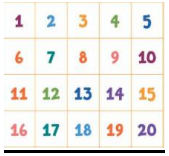
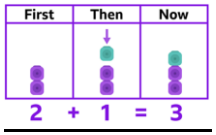
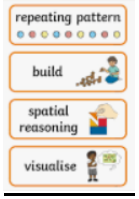
This document sets out the details of our Writing curriculum, explaining how it is taught and why, and what children will learn. It also sets out the 'Milestones', or what we expect all children to be able to achieve in Writing in each year group.

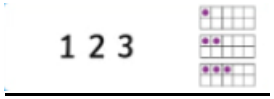
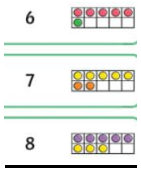
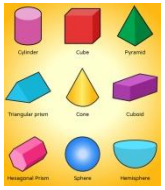
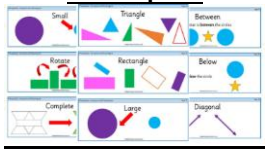
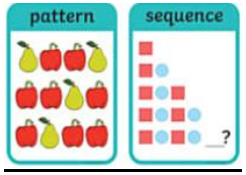
In EYFS we use a combination of White Rose and NCTEM for maths planning.
In KS1 we follow the National Curriculum use the White Rose Scheme.

RECEPTION (EYFS)

What is our vision for Maths?	**It is our vision that our children:** • Children begin their mathematical journey with confidence. They notice patterns, exploring shapes, solving problems and discovering number in the world around us. Through playful, hands-on learning experiences children are empowered to experiment, question and explore Maths in a variety of ways. • Every child sees themselves as a mathematician, developing early number sense, spatial awareness and reasoning skills.

Reception

Terms	1	2	3	4	5	6
Topic Overview	**Only One You!**	**Let's Celebrate!**	**People who Help Us**	**Superheroes**	**All Creatures Great and Small**	**Tell me a Story**
White Rose Unit Overview	**Match, Sort and Compare**  **Talk About Measure and Patterns**  **It's Me 1, 2, 3!**	**Circles and Triangles**  **1, 2, 3,4, 5**  **Shapes With 4 Sides** 	**Alive in 5!**  **Mass and Capacity**  **Growing 6, 7, 8**	**Length, Height and Time**   **Building 9 and 10**  	**To 20 and Beyond**  **How Many Now?**  **Manipulate, Compose**	**Sharing and Grouping**  **Visualise, Build and Map**  **Make Connections**

			 **Length, Height and Time**  	 **Explore 3D Shapes**	**and Decompose**  **Sharing and Grouping** 	
Small Steps	• Match objects • Match pictures and objects • Identify a set • Sort objects into a type • Compare size • Compare mass • Compare capacity • Explore simple patterns • Copy and continue simple patterns • Create simple patterns • Find 1, 2 and 3 • Subitise 1, 2 and 3 • Represent 1, 2 and 3 • 1 more • 1 less • Composition of 1, 2 and 3	• Identify and name circles and triangles • Compare circles and triangles • Shapes in the environment • Describe position • Find 4 and 5 • Subitise 4 and 5 • Represent 4 and 5 • 1 more • 1 less • Composition of 4 and 5 • Composition of 1-5 • Identify and name shapes with 4 sides • Combine shapes with 4 sides • Shapes in the environment • My day and night	• Introduce zero • Find 0 to 5 • Subitise 0 to 5 • Represent 0 to 5 • 1 more • 1 less • Composition • Conceptual subitising to 5 • Compare mass • Find a balance • Explore capacity • Compare capacity • Find 6, 7 and 8 • Represent 6, 7 and 8 • Composition of 6, 7 and 8 • Make pairs – odd and even	• Explore height • Compare height • Talk about time • Order and sequence time • Find 9 and 10 • Represent 9 and 10 • Conceptual subitising to 10 • 1 more • 1 less • Composition to 10 • Bonds to 10 (2 parts) • Make arrangements of 10 • Bonds to 10 (3 parts) • Doubles to 10 (find a double) • Doubles to 10 (make a double) • Explore even and odd • Reognise and name 3-D shapes • Find 2-d shapes within 3-D shapes	• Build numbers beyond 10 (10-13) • Continue patterns beyond 10 (10-13) • Build numbers beyond 10 (14-20) • Continue patterns beyond 10 (14-20) • Verbal counting beyond 20 • Verbal counting patterns • Add more • How many did I add? • Take away • How many did I take away? • Select shapes for a purpose • Rotate shapes • Manipulate shapes • Explain shape arrangements • Compose shapes • Decompose shapes	• Explore grouping • Grouping • Even and odd sharing • Play with and build doubles • Identify units of repeating patterns • Create own pattern rules • Explore own pattern rules • Replicate and build scenes and constructions • Visualise from different positions • Describe positions • Give instructions to build • Explore mapping • Represent maps with models • Create own maps from familiar places • Create own maps and plans from story

			• Double to 8 (find a double) • Combine 2 groups • Conceptual subitising • Explore length • Compare length	• Use 3-D shapes for tasks • 3-D shapes in the environment • Identify more complex patterns • Copy and continue patterns • Patterns in the environment	• Copy 2-D shape pictures • Find 2-D shapes within 3-D shapes • Explore sharing • Sharing	situations • Deepen understanding • Patterns and relationships
Key Vocabulary	Match, different, object, set, sort, same, not the same, rule, odd one out, more, fewer, smaller, bigger, taller, longer, shorter, heavier, lighter, balance, container, more, less, capacity, pattern, altogether, subitise, counting.	Shape, same, different, sorted, move, altogether, count, group, 1 more, 1 less, parts, whole, shape, square, rectangle, small, large, now, next, later, this afternoon.	Zero, numeral, counted, group, altogether, counting, counted, 1 more than, number after, part, whole, altogether, heavier, lighter, balance, float, sink, capacity, more, fewer, container, greatest, smallest, cups of, spoonful, most, least,	Long, short, longest, shortest, the same length as, tall, taller, tallest, short, shorter, shortest, minute, evening, tomorrow, next week, weekend, yesterday, last week, last month, last year, before, after, days, 9, 10, altogether, counted, different, more, fewer, altogether, whole, parts, pattern, altogether, count, double, equal, unequal, odd, even, shape, same, 2-D, 3-D, roll, stack.	11, 12, 13, after, pattern, ten, comes after, build, counting, first, now, altogether, added, taken away, shapes, belong, match, picture, fit, arranged, next to, in front of, behind, move around, move under, move over, smallest, largest, fold, 2-D, 3-D, fair, equal, groups, left over, altogether.	Altogether, equal groups, odd, even, left over, double, pattern, repeat, next, rule, build, scene, the same, different, position, next to , above, below, positioned, behind, in front of, follow, straight, route, explain, strategy, know, need, check.
Key Facts	• Identify and match objects and pictures based on attributes • Sort objects into sets using different criteria • Compare sets and objects using mathematical language • Order objects by weight, height or capacity • Continue a pattern and spot mistakes	• Identify circles and triangles • Describe shape features • Sorting and classifying • Recognising and representing numbers 1-5 • Subitising • Counting with one-to-one correspondence • Composition of 1, 2, 3, 4, 5	• Introducing zero • Counting and representing numbers 0 to 5 • One more and one less • Composition of numbers • Conceptual subitising • Recognising and representing 6, 7 and 8 • Subitising • Composition of 6, 7	• Comparing and describing length and height • Using non-standard units to measure • Sequencing • Using timers and clocks • Recognising and representing 9 and 10 • Number bonds to 10 • Part whole relationships • Doubling and	• Counting and representing numbers to 20 • Building and composing numbers to 20 • Number patterns and sequencing • Spatial reasoning • Select, rotate and arrange shapes, • Compose and decompose shapes • Find 2-D shapes within	• Linking to division • Use vocabulary share, group, equal, fair, same, left over • Visualise objects and spaces • Translate real-world spaces into maps and diagrams • Build models • Understand scale, layout and spatial relationships • Follow and give

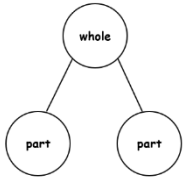
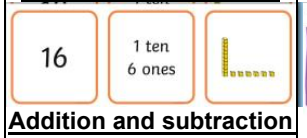
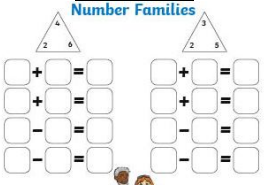
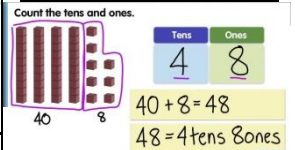
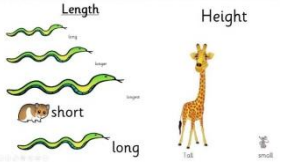
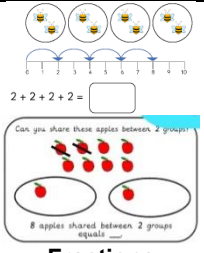
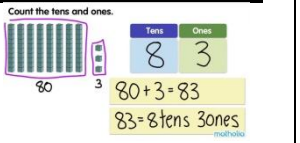
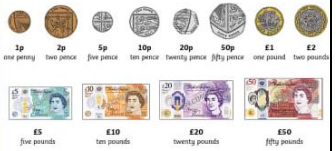
	• Recognise numbers 1, 2 and 3 • Subitising • Representing numbers • One more and one less • Composition of 1, 2 and 3	• One more and one less • Recognise square, rectangle, rhombus and trapezium • Describe properties using sides, corners/vertices, same/different	and 8 • One more and one less • Combining two groups • Making pairs and exploring doubles • Comparing and describing length and height • Using non-standard units to measure • Sequencing • Using timers and clocks	combining groups • Recognising and naming: cube, cuboid, sphere, cylinder, cone • Describing properties using faces, edges and vertices • Find 2-D shapes within 3-D shapes	3-D shapes • Group objects equally • Understand fair sharing	directions • Use above, below, next to in front of, behind, between • Strengthening number bonds • Explore repeating patterns • Identify rules, predict sequences and make their own patterns • Use positional and comparative language
Problem Solving and Reasoning Skills Objectives	• Identify patterns/rules • Make decisions • Explain their thinking • Justify their choices • Describe and explain patterns • Respond to open-ended questions	• Explore and identify shapes • Sort and classify shapes • Use shapes creatively • Investigate shape combinations • Apply number knowledge • Explore composition • Use one more/one less • Investigate and compare shapes • Use shapes creatively	• Apply number knowledge • Explore composition of numbers • Use one more/one less • Investigate zero • Find and represent numbers 6, 7 and 8 • Explore number composition • Explain their thinking • Use mathematical vocabulary • Describing patterns and relationships • Compare and order • Sequence events • Explaining comparisons • Responding to true or false questions • Use time related vocabulary	• Describing patterns and relationships • Compare and order • Sequence events • Explaining comparisons • Responding to true or false questions • Use time related vocabulary • Find and represent numbers 9 and 10 • Explore number bonds to 10 • Apply number knowledge • Explain their thinking • Describe number relationships • Identify and sort 3-D shapes • Use 3-D shapes to solve problems • Explore which shapes stack or roll	• Build and represent numbers beyond 10 • Explore number patterns • Solve practical problems • Apply place value understanding • Understand how larger shapes can be made of smaller parts • Describe and compare • Talk about position, orientation and rotation • Share equally • Group objects into equal sets • Investigate doubles	• Identify odd and even numbers • Use reasoning to predict outcomes • Pattern and rule recognition • Predict what comes next • Develop spatial reasoning • Create and interpret simple maps • Use directional and positional language accurately • Explore multiple solutions • Identifying and describing patterns

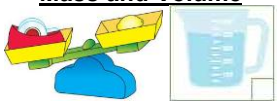
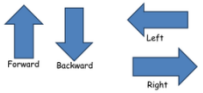
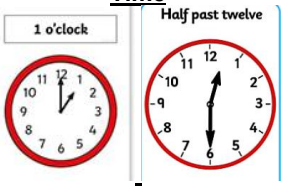
				• Describe and compare 3-D shapes • Explain sorting rules		
What are the EYFS Framework milestone aims for Maths?	**Number and Numerical Pattern ELG: Children at the expected level of development will:** - Have a deep understanding of numbers to 10, including the composition of each number. - Subitise up to 5. - Automatically recall number bond up to 5 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, recognizing 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.					

KS1 Maths

What is our vision for Maths in KS1?	**It is our vision that our children:** • Develop a deep and lasting love for mathematics. • At Key Stage One, we aim to nurture resilient learners who are eager to investigate, question, and make connections. Through hands-on experiences, engaging challenges, and meaningful real-world contexts, children will build strong foundations in number sense, shape, space, and measure. • We strive to create a learning environment where mistakes are celebrated as stepping stones to understanding, and where every child feels empowered to think mathematically and express their ideas. • By encouraging mathematical talk, learners are confident to think logically and make confident decisions.

Year 1

Terms	1	2	3	4	5	6
Topic Overview	**Me, Myself and I!**	**Terrific Toys**	**Wheels, Wings and other things**	**Panic on Pudding Lane**	**Wondrous Weather**	**Our Wild World**
White Rose unit overview	**Place Value (within 10)**	**Addition and Subtraction**  **Geometry**	**Place Value (within 20)**  **Addition and subtraction (within 20)** 	**Place Value (within 50)**  **Length and Height** 	**Multiplication and Division**  **Fractions** 	**Place Value (within 100)**  **Money** 

				Mass and Volume 	**Position and Direction** 	**Time** 
Small steps	• Sort objects • Count objects • Count objects from a larger group • Represent objects • Recognise numbers as words • Count on from any number • 1 more • Count backwards within 10 • 1 less • Compare groups by matching	• Part-whole model • Write number sentences • Fact families – addition facts • Number bonds within 10 • Systematic number bonds within 10 • Number bonds to 10 • Addition – add together • Addition – add more • Addition problems • Find a part • Subtraction – find a part • Fact families – the eight facts • Subtraction – take away/cross out (how many left?) • Subtraction – take away (how many left?) • Subtraction on a number lime • Add or subtract 1 or 2 • Recognise and name 3-D shapes • Sort 3-D sapes • Recognise and name 2-D shapes • Sort 2-D shapes • Patterns with 2-D and 3-D shapes	• Count within 20 • Understand 10 • Understand 11, 12 and 13 • Understand 14, 15 and 16 • Understand 17, 18 and 19 • Understand 20 • 1 more and 1 less • The number line to 20 • Use a number line to 20 • Estimate on a number line to 20 • Compare numbers to 20 • Order numbers to 20 • Add by counting on within 20 • Add ones using number bonds • Find and make number bonds to 20 • Doubles • Near doubles • Subtract ones using number bonds • Subtraction – counting back • Subtraction – finding	• Count from 20 to 50 • 20, 30, 40 and 50 • Count by making groups of tens • Groups of tens and ones • Partition into tens and ones • The number line to 50 • Estimate on a number line to 50 • 1 more, 1 less • Compare lengths and heights • Measure length using objects • Measure length in centimetres • Heavier and lighter • Measure mass • Compare mass • Full and empty • Compare volume • Measure capacity • Compare capacity	• Count in 2s • Count in 10s • Count in 5s • Recognise equal groups • Add equal groups • Make arrays • Make doubles • Make equal groups – grouping • Make equal groups – sharing • Recognise a half of an object or a shape • Find a half of an object or shape • Recognise half of a quantity • Find half of a quantity • Recognise a quarter of an object or a shape • Find a quarter of an object or a shape • Recognise a quarter of a quantity • Find a quarter of a quantity	• Describe turns • Describe position – left and right • Describe position – forwards and backwards • Describe position – above and below • Ordinal numbers • Count from 50 to 100 • Tens to 100 • Partition into 10s and ones • The number line to 100 • 1 more, 1 less • Compare numbers with the same number of tens • Compare any two numbers • Unitising • Recognise coins • Recognise notes • Count in coins • Before and after • Days of the week • Months of the year • Hours, minutes and seconds • Tell the time to the hour • Tell the time to the half hour

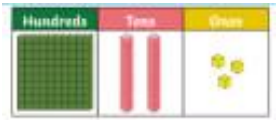
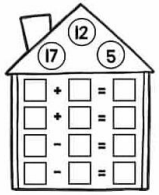
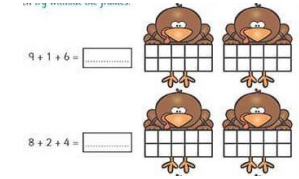
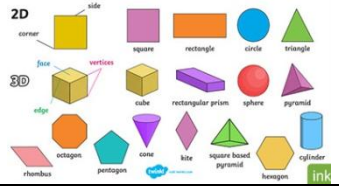
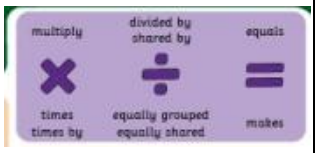
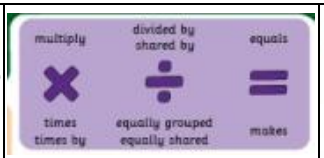
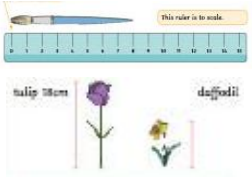
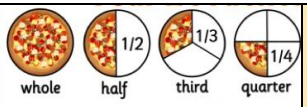
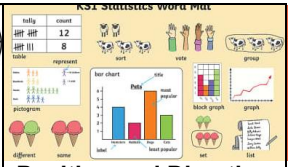
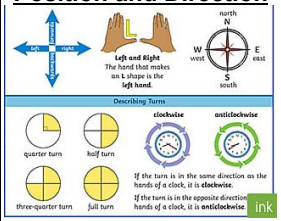
			the difference • Related facts • Missing number problems			
Key vocabulary	Digit, numeral, figure(s), compare, order/a different order, size, value, between, halfway between, above, below, tens, ones	Number line, add, plus, make, sum, total, near double, equals, is the same as (including equals sign), difference between, subtract, take away, minus, how many…? How much…? Edge, corner (point, pointed), face, side, edge, flat, curved	Digit, numeral, figure(s), compare, order/a different order, size, value, between, halfway between, above, below, tens, ones Number line, add, plus, make, sum total, near double, equals, is the same as (including equals sign), difference between, subtract, takeaway, minus, how many…? How much…?	Digit, numeral, figure(s), compare, order/a different order, size, value, between, halfway between, above, below, tens, ones Estimate, close to, about the same as, just over, just under, too many, too few, not enough, length, width, height, depth, long, longer, longest, short, shorter, shortest, tall, taller, tallest, high, higher, highest, low, wide, narrow, deep, shallow, thick, thin, far, near, close, metre, ruler, metre stick Estimate, close to, about the same as, just over, just under, mass, weigh, weighs, balances, heavy, light, heavier than, lighter than, heaviest, lightest, scales, litre, half litre, capacity, volume, full, empty, more than, less than, half full, quarter full, holds, container	Once, twice, three times, five times, multiply, multiply by, repeated addition, array, divide, divided by, left over, pair Whole, equal parts, four equal parts, one half, two halves, a quarter, two quarters	Direction, left, right, across, close, far, near, along, through, to, from, towards, away from, movement, slide, roll, turn, whole turn, half turn Digit, numeral, figure(s), compare, order/a different order, size, value, between, halfway between, above, below, tens, ones Price, cost, buy, sell, spend, spent, pay, change, costs more, costs less, cheaper, costs the same as Time, seasons, hour, o'clock, half past, clock, watch, hands, always, never, often, sometimes, usually, days of the week, months in year, before, after, next, last, now, soon, early, late, quick, quicker, quickest, fast, faster, fastest, slow, slower, slowest, slowly, old, older, oldest, new, newer, newest, once, twice, first, second, third
Key facts	• To know that 0 means nothing • To know that zero comes before one	• To know that equals means the same as • To know that the equals sign can go in different positions • To recall number bonds to and within 10 fluently • To know that + represents adding two or more parts • To know that – represents	• To know that one more is one more 1 added • To know that the numbers 11 to 19 are one ten and some ones • To know that 10 is one ten and no more ones • To know that 20 is two tens and no more ones • To know to put the	• To know that height is a type of length • To know that a ruler can be used to measure items, using centimetres • To know that 'cm' means centimetres • To know that equal groups have the same amount	• To know that a pair is two objects, and those objects do not need to look exactly the same • To know that an array is made from equal rows and equal columns • To know that doubling is two times the number • To know that 10 is two lots of (double) 5 Double	• To know that a clock can be used to remember quarter, half and three quarter turns • To know that numbers to 100 are made up from some tens and some more tens and/or ones • To know in Britain that we pay in pounds and pence • To know that in Britain we use coins and notes

		subtracting a part from the whole • To know that when I subtract, I start with the whole number • To know the names of some 2D and 3D shapes • To know that 3D shapes are completely flat • To know that 3D shapes are solid shapes with corners, edges and faces	biggest number first when counting on and back • To know that addition is commutative (can be done both ways) • To know that a number gets smaller it is subtracted	• To know that capacity is how much a container can hold • To know that volume describes the amount of something inside a container	numbers up to 20 • Count in multiples of 5 up to 50 (in order) • To know that half is something split equally into two parts • To know that a quarter is something split equally into four parts	• To know that there are 7 days in a week • To know that there are 12 months in the year • To know that on a clock the minute hand is longer than the hour hand • To know that on a clock the second hand moves the quickest • To know that minutes are longer than seconds • To know that hours are longer than minutes
Problem Solving and Reasoning Skills Objectives	• Use diagrams (e.g. three circles) to sort objects into three or more separate groups according to a given criterion • Suggest a different criterion for grouping the same objects • Say what they have found out (with support) • Use concrete objects or pictures to help work out the answer	• Identify what the question means • Use concrete objects or pictures to help work out the answer • With support, answer a question by recording information in lists and simple timetables	• Explain why an answer is correct or incorrect • Show the working out and the answer clearly • Recognise, describe and continue more complex patterns involving numbers or shapes • Make predictions and test these with examples, using mathematical language	• Identify the key information given in a one-step puzzle or word problem • Try a range of possible solutions to solve problems	• Identify the operation to solve a one-step puzzle or word problem • Use arrays to help work out the answer with support of an adult • Check the answer in the context of the problem to be sure it makes sense	• Give reasons to justify what might come next in a simple sequence of shapes or numbers • Check the answer in the context of the problem to be sure it makes sense • Check the answer in the context of the problem to be sure it makes sense
What are the KS1(YEAR 1?) National Curriculum aims?	**<u>Number and Place Value</u>** **Pupils should be taught to:** • Count to and across 100, forwards and backwards, beginning with a 0 or 1, or from any given number. • Count, read and write numbers up 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 **<u>Addition and subtraction</u>** **Pupils should be taught to**: • 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 **Multiplication and division** **Pupils should be taught to:** • 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. **Fractions** **Pupils should be taught to**: • 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. **Measurement** **Pupils should be taught to:** • 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 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 and draw the hands on a clock face to show these times. **Geometry – properties of shapes** **Pupils should be taught to:** • 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). **Geometry – position and direction** **Pupils should be taught to:** • Describe position, direction and movement, including whole, half, quarter and three-quarter turns.

Year 2

Terms	**1**	**2**	**3**	**4**	**5**	**6**
Topic Overview	**Take a Dip**	**Full steam ahead**	**Mischief and Medicine**	**Flourish!**	**In a land far, far away**	**Take Flight**
White Rose unit overview	**Place Value**	**Addition and Subtraction**	**Money**	**Multiplication and Division**	**Fractions**	**Statistics**

	 **Addition and Subtraction** 	 **Shape** 	 **Multiplication and Division** 	 **Length and Height** 	 **Time** 	 **Position and Direction** 
Small steps	• Numbers to 20 • Count objects to 100 by making 10s • Recognise 10s and 1s • Use a place value chart • Partition numbers to 100 • Write numbers to 100 in words • Flexibly partition numbers to 100 • Write numbers to 100 in expanded form • 10s on the number line to 100 • 10s and 1s on the number line to 100 • Estimate numbers on a number line • Compare objects • Order objects and numbers • Count in 2s, 5s and 10s • Count in 3s • Bonds to 10 • Fact Families • Related facts	• Bonds to 100 (tens) • Add and subtract 1s • Add by making 10 • Add three 1-digit numbers • Add to the next 10 • Add across a 10 • Subtract across a 10 • Subtract from a 10 • Subtract a 1-digit number from a 2-digit number (across a 10) • 10 more, 10 less • Add and subtract 10s • Add two 2-digit numbers (not across a 10) • Add two 2-digit numbers (across a 10) • Mixed addition and subtraction • Compare number sentences • Missing number problems • Recognise 2-D and 3-D shapes • Count sides on 2-D shapes • Count vertices on 2-D shapes	• Count money – pence • Count money – pounds (notes and coins) • Count money – pounds and pence • Choose notes and coins • Make the same amount • Compare amounts of money • Calculate with money • Make a pound • Find change • Two-step problems • Recognise equal groups • Make equal groups • Add equal groups • Introduce the multiplication symbol • Multiplication sentences • Use arrays • Make equal groups – grouping • Make equal groups – sharing • The 2 times-table	• Divide by 2 • Doubling and halving • Odd and even numbers • The 10 times-table • Divide by 10 • The 5 times-table • Divide by 5 • The 5 and 10 times-tables • Measure in centimetres • Measure in metres • Compare lengths and heights • Order lengths and heights • Four operations with lengths and heights • Compare mass • Measure in grams • Measure in kilograms • Four operations with mass • Compare volume and capacity • Measure in milliliters	• Introduction to parts and whole • Equal and unequal parts • Recognise a half • Find a half • Recognise a quarter • Find a quarter • Recognise a third • Find a third • Find the whole • Unit fractions • Non-unit fractions • Recognise the equivalence of a half and two quarters • Recognise three-quarters • Find three-quarters • Count in fractions up to a whole • O'clock and half past • Quarter past and quarter to • Tell time past the hour • Tell time to the hour	• Make tally charts • Tables • Block diagrams • Draw pictograms (1-1) • Interpret pictograms (1-1) • Draw pictograms (2, 5 and 10) • Interpret pictograms (2, 5 and 10) • Language of position • Describe movement • Describe turns • Describe movement and turns • Shape patterns with turns

		• Draw 2-D shapes • Lines of symmetry on shapes • Use lines of symmetry to complete shapes • Sort 2-D shapes • Count faces on 3-D shapes • Count edges on 3-D shapes • Make patterns with 2-D and 3-D shapes		• Measure in litres • Four operations with capacity • Temperature	• Tell the time to 5 minutes • Minutes in an hour • Hours in a day	
Key vocabulary	Numbers to one hundred, hundreds, partition, recombine **Re-cap year one vocabulary,** inverse, bar model	**Re-cap year one vocabulary,** inverse, bar model Symmetrical, line of symmetry, fold, match, mirror line, reflection, corner (point, pointed), face, side, edge, surface	Price, cost, buy, sell, spend, spent, pay, change, costs more, costs less, cheaper, costs the same as Multiple of times, multiplication, lots of, division, (row, column)	Multiple of times, multiplication, lots of, division, (row, column) Centimetres, metre ruler, metre stick, metres, longer than, shorter than, taller than, shortest, longest, tallest	Three quarters, one third, a third, equivalence, equivalent, unit fraction, non-unit fraction Time, seasons, hour, o'clock, half past, clock, watch, hands, always, never, often, sometimes, usually, quarter past, quarter to, minutes past, minutes to, clock face, hands, hour hand, minute hand, hours, minutes	Vote, graph, block graph, pictogram, represent, most popular, most common, least popular, least common, tally Rotation, clockwise, anticlockwise, straight line, ninety degree turn, right angle
Key facts	• To know that 10 ones can be grouped as one 10 • To know that numbers can be partitioned in different ways • To know the importance of the tens digit • To know that addition of two numbers can be done in any order (commutative) • To know that subtraction of one number from another cannot be done in any order • To know that addition and subtraction are the opposite of one another (inverse)	• To know that addition of two numbers can be done in any order (commutative) • To know that subtraction of one number from another cannot be done in any order • To know that addition and subtraction are the opposite of one another (inverse) • To know the names of a range of 2D and 3D shapes • To know that a vertex is a corner where edges meet; that vertices are more than one corner (where edges meet) • To know that vertical is a line which runs up and down a page or shape, from top to bottom • To know that a curved surface	• To know that there are 100p in £1 • To know that subtraction can be used to calculate the amount of change • To know that equal groups must all have the same amount • To know that arrays are made from equal rows and equal columns • To know that the × symbol represents multiply • To know that doubling is 2 times the number • To know that a number is divided by grouping it into equal groups • To know that a number is	• To know that equal groups must all have the same amount • To know that arrays are made from equal rows and equal columns • To know that the × symbol represents multiply • To know that doubling is 2 times the number • To know that a number is divided by grouping it into equal groups • To know that a number is divided by sharing into equal groups • To know that the ÷ symbol represents division • To know that we can	• To know: 1/3 + 1/3 + 1/3 = 1 whole; ¼ + ¼ = 2/4 = 1/2; 4/4 = 1 whole; 3/3 = whole; 2/2 = 1 whole • that 2/4 and ½ are the same (equivalent) • that there are 60 minutes in one hour • that there are 60 seconds in a minute • that half an hour = 30 minutes • that one quarter of an hour = 15 minutes • that three quarters of an hour = 45 minutes • To know that there are 24	• To know that a symbol or picture can represent an amount of data • To know that a  = 5 • To know that clockwise is a motion that turns to the right • To know that anticlockwise is a motion that turns to the left (opposite of clockwise)

		is different to a face • To know that an edge is where faces meet • To know that a side is a line that joins 2 vertices • To know that a face is a flat surface on a 3D shape	divided by sharing into equal groups • To know that the ÷ symbol represents division	measure length using centimetres and metres • To know that the abbreviation for centimetres is "cm" • To know that the abbreviation for metres is "m" • To know that metres are larger than centimetres • To know that there are 100cm in 1m	hours in one day • Know that there are fifteen five-minute intervals on a clock face • Know that there is a minute and an hour hand on a clock	
Problem Solving and Reasoning Skills Objectives	• Justify their reasoning logically, using phrases such as 'I know that…so…' or 'I am sure of that because…' • Explain why an answer is correct or incorrect • Explain what they have found out using mathematical language • Respond to 'What is…?' questions, making predictions based on mathematical knowledge • Identify the key information in a two-step puzzle or word problem, where the two steps are shown in the question	• Respond to 'What is…?' questions, making predictions based on mathematical knowledge • Identify the key information in a two-step puzzle or word problem, where the two steps are shown in the question • Record work and results in lists and simple tables • Use a simple Venn diagram (two overlapping circles) to sort objects into three groups – x; y; and both x and y	• Begin to work systematically • Apply their increasing knowledge of mental and written methods • Use multiplication and division methods as needed e.g. arrays, repeated addition, mental methods and facts	• Apply their increasing knowledge of mental and written methods • Use multiplication and division methods as needed e.g. arrays, repeated addition, mental methods and facts • Identify the operations needed to solve a two-step word problem, where the two steps are shown in the	• Describe and explain decisions and methods chosen • Suggest a way to solve a problem • Use diagrams to find a solution, with support • Adopt a suggestion by an adult or their peers	• Use lists and tables to organize and interpret given information, with support • Explain what they have found out using mathematical language
What are the KS1 National (YEAR 2?) Curriculum aims?	**Number and place value** **Pupils should be taught:** • 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 **Addition and subtraction**					

	Pupils should be taught to: • 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 2o 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. **Multiplication and division** **Pupils should be taught to:** • Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognizing 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 **Fractions** **Pupils should be taught to:** • Recognise, find, name and write fractions 1/3, ¼, 2/4 and ¾ of a length, shape, set of objects or quantity • Write simple fractions for example, ½ of 6 = 3 and recognise the equivalence of 2/4 and ½ **Measurement** **Pupils should be taught to:** • 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 **Geometry – properties of shape**

	Pupils should be taught to: • 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 **Geometry – position and direction** • 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). **Statistics** **Pupils should be taught to:** • 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.