Maths EYFS to KS1 Bridging Document

	EYFS Curriculum	White Rose Reception Curriculum	White Rose Year 1 Curriculum
Specific Area of Learning: Mathematics	**ELG: Number** Children at the expected level of development will: • Have a deep understanding of numbers to 10, including the composition of each number. • Subitise (recognise quantities without counting) up to 5. • Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts. **ELG: Numerical Patterns** Children at the expected level of development will: • Verbally count beyond 20, recognising the pattern of the counting system. • Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity. • Explore and represent patterns within numbers up to 10, including evens and	**Autumn Term:** **Match, sort and compare** • Matching objects and pictures • Identifying sets and sorting objects • Creating rules and comparing amounts **Talk about measure and patterns** • Comparing size, mass and capacity • Exploring, copying and continuing simple patterns **It's me 1, 2, 3** • Find, subitise and represent 1, 2 and 3. • 1 more and 1 less • Composition of 1, 2 and 3 **Circles and triangles** • Identifying and comparing circles and triangles • Shapes in the environment • Describing position **1, 2, 3, 4, 5** • Find, subitise and represent 4 & 5 • 1 more and 1 less • Composition of 1 to 5 **Shapes with 4 sides** • Identify, name and combine shapes with 4 sides. • Shapes in the environment • My day and night	**National Curriculum** **Year 1 programme of study** **Number - number and place value** Pupils should be taught to: • count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number • count, read and write numbers to 100 in numerals; count in multiples of 2s, 5s and 10s • given a number, identify 1 more and 1 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 **Number - addition and subtraction** 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 0

	odds, double facts and how quantities can be distributed equally. **Development Matters** Children in reception will be learning to: • count objects, actions and sounds • subitise • link the number symbol (numeral) with its cardinal number value • count beyond 10 **Children in reception will be learning to:** • compare numbers • understand the 'one more than or one less than' relationship between consecutive numbers • explore the composition of numbers to 10 • automatically recall number bonds for numbers 0 to 5 and some to 10 • select, rotate and manipulate shapes to develop spatial reasoning skills **Children in reception will be learning to:** • compose and decompose shapes so that children recognise a shape can have	**Spring Term:** **Alive in 5** • Introduce zero • Find, subitise and represent 0 to 5 • 1 more and 1 less • Composition • Conceptual subitising to 5 **Mass and capacity** • Compare mass • Find a balance • Explore and compare capacity **Growing 6, 7, 8** • Find and represent 6, 7 and 8 • 1 more and 1 less • Composition of 6, 7 and 8 • Make pairs – odd and even • Double to 8 – find a double and make a double • Combine 2 groups • Conceptual subitising **Length, height and time** • Explore and compare and length • Explore and compare height • Talk about time • Order and sequence time **Building 9 and 10** • Find, represent and compare numbers to 10 • Conceptual subitising to 10 • 1 more and 1 less • Composition to 10 • Bonds to 10 – 2 parts and 3 parts • Doubles to 10 – find and make a double • Explore even and odd	• solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = ? – 9 **Number - 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 **Number - fractions** Pupils should be taught to: • recognise, find and name a half as 1 of 2 equal parts of an object, shape or quantity • recognise, find and name a quarter as 1 of 4 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, half full, quarter] • time [for example, quicker, slower, earlier, later] • measure and begin to record the following:

	other shapes within it, just as numbers can • continue, copy and create repeating patterns • compare length, weight and capacity	**Explore 3D Shapes** • Recognise, find and name 3D shapes • Find 2D shapes within 3D shapes • Use 3D shapes for tasks and in the environment • Identify and copy complex patterns **Summer Term:** **To 20 and beyond** • Build numbers and patterns beyond 10 (10 – 13) • Build numbers and patterns beyond 10 (14 – 20) • Verbal counting beyond 20 with patterns **How many now?** • Add more – how many more? • Take away – how many less? **Manipulate, compose and decompose** • Select shapes for a purpose • Rotate and manipulate shapes • Explain shape arrangements • Compose and decompose shapes • Copying and find 2D shapes within 3D shapes **Sharing and grouping** • Explore sharing • Explore grouping • Even and odd sharing • Play with and build doubles **Visualise, build and map** • Identify, create and explore patterns • Replicate and build scenes and constructions • Visualise and describe different positions • Explore mapping • Represent and create maps	• lengths and heights • mass/weight • capacity and volume • time (hours, minutes, seconds) • recognise and know the value of different denominations of coins and notes • sequence events in chronological order using language [for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening] • recognise and use language relating to dates, including days of the week, weeks, months and years • tell the time to the hour and half past the hour and draw the hands on a clock face to show these times **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

Maths in EYFS and Progression to KS1

The aim of this part of the document is to give an at a glance guide to how the White Rose Maths Reception schemes of learning link to the two forms of non-statutory curriculum guidance for the EYFS, Development Matters (DFE 2021) and Birth to 5 Matters (Early Education 2021), and how that prepares children for Maths in KS1. The box at the bottom shows when each area is taught in Reception.

Comparison

White Rose MATHS

Development matters		Birth to 5 matters	
3 and 4 year olds	**Reception**	**Range 5**	**Range 6**
• Link numerals and amounts: for example, showing the right number of objects to match the numeral, up to 5. • Experiment with their own symbols and marks as well as numerals.	• Count objects, actions and sounds. • Compare numbers.	• Compares two small groups of up to five objects, saying when there are the same number of objects in each group, e.g. You've got two, I've got two. Same!	• Uses number names and symbols when comparing numbers, showing interest in large numbers • Estimates of numbers of things, showing understanding of relative size
Autumn 3, Autumn 5 Spring 1 Summer 2	Autumn 1, Autumn 5 Spring 1, Spring 3, Spring 4, Spring 5 Summer 1, Summer 6	Autumn 2, Autumn 5	Spring 1, Spring 3, Spring 5 Summer 1, Summer 4

Counting

White Rose MATHS

Development matters		Birth to 5 matters	
3 and 4 year olds	**Reception**	**Range 5**	**Range 6**
• Recite numbers past 5. • Say one number for each item in order: 1, 2, 3, 4, 5.	• Count beyond ten.	• May enjoy counting verbally as far as they can go • Points or touches (tags) each item, saying one number for each item, using the stable order of 1,2,3,4,5. • Uses some number names and number language within play, and may show fascination with large numbers • Begin to recognise numerals 0 to 10	• Enjoys reciting numbers from 0 to 10 (and beyond) and back from 10 to 0 • Increasingly confident at putting numerals in order 0 to 10 (ordinality)
Autumn 3, Autumn 5 Spring 3, Spring 5 Summer 1	Summer 1, Summer 6	Autumn 3, Autumn 5 Spring 1, Spring 5 Summer 1	Spring 5 Summer 1

Cardinality

White Rose MATHS

Development matters		Birth to 5 matters	
3 and 4 year olds	**Reception**	**Range 5**	**Range 6**
• Develop fast recognition of up to 3 objects, without having to count them individually ('subitising'). • Know that the last number reached when counting a small set of objects tells you how many there are in total ('cardinal principle'). • Show 'finger numbers' up to 5.	• Subitise • Link the number symbol (numeral) with its cardinal number value.	• Subitises one, two and three objects (without counting) • Counts up to five items, recognising that the last number said represents the total counted so far (cardinal principle) • Links numerals with amounts up to 5 and maybe beyond • Explores using a range of their own marks and signs to which they ascribe mathematical meanings	• Engages in subitising numbers to four and maybe five • Counts out up to 10 objects from a larger group • Matches the numeral with a group of items to show how many there are (up to 10)
Autumn 3, Autumn 5 Spring 1	Autumn 3, Autumn 5 Spring 1, Spring 3, Spring 5 Summer 6	Autumn 3, Autumn 5 Spring 1 Summer 2	Autumn 5 Spring 1, Spring 3, Spring 5 Summer 4

Composition

White Rose MATHS

Development matters		Birth to 5 matters	
3 and 4 year olds	**Reception**	**Range 5**	**Range 6**
• Solve real world mathematical problems with numbers up to 5.	• Understand the 'one more than/one less than' relationship between consecutive numbers. • Explore the composition of numbers to 10. • Automatically recall number bonds for numbers 0-5 and some to 10.	• Through play and exploration, beginning to learn that numbers are made up (composed) of smaller numbers • Beginning to use understanding of number to solve practical problems in play and meaningful activities • Beginning to recognise that each counting number is one more than the one before • Separates a group of three or four objects in different ways, beginning to recognise that the total is still the same	• Shows awareness that numbers are made up (composed) of smaller numbers, exploring partitioning in different ways with a wide range of objects • Begins to conceptually subitise larger numbers by subitising smaller groups within the number, e.g. sees six raisins on a plate as three and three • In practical activities, adds one and subtracts one with numbers to 10 • Begins to explore and work out mathematical problems, using signs and strategies of their own choice, including (when appropriate) standard numerals, tallies and "+" or "-"
Autumn 5 Spring 1	Autumn 3, Autumn 5 Spring 1, Spring 3, Spring 5 Summer 2, Summer 4, Summer 6	Autumn 3, Autumn 5 Spring 1	Autumn 5 Spring 1, Spring 3, Spring 5 Summer 2, Summer 4, Summer 6

Spatial awareness

White Rose MATHS

Development matters		Birth to 5 matters	
3 and 4 year olds	**Reception**	**Range 5**	**Range 6**
• Compare quantities using language: 'more than', 'fewer than', • Understand position through words alone – for example, "The bag is under the table," – with no pointing. • Describe a familiar route. • Discuss routes and locations, using words like 'in front of' and 'behind'.	• Select, rotate and manipulate shapes in order to develop spatial reasoning skills.	• Responds to and uses language of position and direction • Predicts, moves and rotates objects to fit the space or create the shape they would like	• Uses spatial language, including following and giving directions, using relative terms and describing what they see from different viewpoints • Investigates turning and flipping objects in order to make shapes fit and create models; predicting and visualising how they will look (spatial reasoning) • May enjoy making simple maps of familiar and imaginative environments, with landmarks
Autumn 2, Autumn 4 Spring 3 Summer 5	Spring 6 Summer 3	Autumn 4 Spring 6 Summer 3	Spring 6 Summer 3, Summer 5

Shape

White Rose MATHS

Development matters		Birth to 5 matters	
3 and 4 year olds	**Reception**	**Range 5**	**Range 6**
• Talk about and explore 2D and 3D shapes (for example, circles, rectangles, triangles and cuboids) using informal and mathematical language: 'sides', 'corners', 'straight', 'flat', 'round'. • Select shapes appropriately: flat surfaces for building, a triangular prisms for a roof, etc. • Combine shapes to make new ones – an arch, a bigger triangle, etc.	• Compose and decompose shapes so that children recognise a shape can have other shapes *within* it, just as numbers can.	• Chooses items based on their shape which are appropriate for the child's purpose • Responds to both informal language and common shape names • Shows awareness of shape similarities and differences between objects • Enjoys partitioning and combining shapes to make new shapes with 2D and 3D shapes • Attempts to create arches and enclosures when building, using trial and improvement to select blocks	• Uses informal language and analogies, (e.g. *heart-shaped and hand-shaped leaves*), as well as mathematical terms to describe shapes . • Enjoys composing and decomposing shapes, learning which shapes combine to make other shapes • Uses own ideas to make models of increasing complexity, selecting blocks needed, solving problems and visualising what they will build.
Autumn 4, Autumn 6 Spring 6	Autumn 6 Spring 6 Summer 3	Autumn 6 Spring 6 Summer 3	Autumn 4 Spring 6 Summer 3, Summer 5

Pattern

White Rose MATHS

Development matters		Birth to 5 matters	
3 and 4 year olds	**Reception**	**Range 5**	**Range 6**
• Talk about and identify the patterns around them. For example: stripes on clothes, designs on rugs and wallpaper. Use informal language like 'pointy', 'spotty', 'blobs', etc. • Extend and create ABAB patterns – stick, leaf, stick, leaf. • Notice and correct an error in a repeating pattern.	• Continue, copy and create repeating patterns.	• Creates their own spatial patterns showing some organisation or regularity • Explores and adds to simple linear patterns of two or three repeating items, e.g. stick, leaf (AB) or stick, leaf, stone (ABC) • Joins in with simple patterns in sounds, objects, games and stories dance and movement, predicting what comes next	• Spots patterns in the environment, beginning to identify the pattern "rule" • Chooses familiar objects to create and recreate repeating patterns beyond AB patterns and begins to identify the unit of repeat
Autumn 2 Spring 6	Autumn 2 Spring 6 Summer 5	Autumn 2	Autumn 1 Spring 6 Summer 5

Measure

White Rose MATHS

Development matters		Birth to 5 matters	
3 and 4 year olds	**Reception**	**Range 5**	**Range 6**
• Make comparisons between objects relating to size, length, weight and capacity. • Begin to describe a sequence of events, real or fictional, using words such as 'first', 'then...'	• Compare length, weight and capacity.	• In meaningful contexts, finds the longer or shorter, heavier or lighter and more/less full of two items • Recalls a sequence of events in everyday life and stories.	• Enjoys tackling problems involving prediction and discussion of comparisons of length, weight or capacity, paying attention to fairness and accuracy • Becomes familiar with measuring tools in everyday experiences and play • Is increasingly able to order and sequence events using everyday language related to time • Beginning to experience measuring time with timers and calendars
Autumn 2 Spring 2, Spring 4 Summer 5	Spring 2, Spring 4 Summer 6	Autumn 2, Autumn 6 Spring 4	Autumn 6 Spring 2, Spring 4 Summer 6