Reception – Mathematics

	Autumn		Spring		Summer	
	Core Content					
Early Learning Goal	**Number**			**Numerical Patterns**		
	• Have a deep understanding of number to 10, including the composition of each number. • Subitise (recognise quantities without counting) up to 5. • Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts.			• Verbally count beyond 20, recognising the pattern of the counting system. • Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity. • Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally		
	Autumn 1	**Autumn 2**	**Spring 1**	**Spring 2**	**Summer 1**	**Summer 2**
Topic	Who am I and where do I live?	Let's celebrate!	Around the World	Watch me grow!	A journey through time…	We're all going on a Summer holiday!
End Points	**Number** Pupils 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. Pupils will: • identify when a set can be subitised and when counting is needed. • subitise different arrangements, both unstructured and structured, including using the Hungarian 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		Pupils 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. Pupils will: • continue to develop their subitizing skills for numbers within and beyond 5, and increasingly connect quantities to numerals. • begin to identify missing parts for numbers within 5. • explore the structure of the numbers 6 and 7 as '5 and a bit' and connect this to finger patterns and the Hungarian 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. **Mass and Capacity** • Enjoy tackling problems involving prediction and discussion of comparisons of length, weight or capacity, paying attention to fairness and accuracy.		Pupils 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. Pupils will: • 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. • 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. **Shape** • Select shapes for a purpose • Rotate shapes • Manipulate shapes • Explain shape arrangements • Compose shapes • Decompose shapes • Copy 2-D shape pictures	

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	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 part. **Shape** • Talk about and explore 2D shapes (for example, circles, triangles, rectangles, squares) using informal and mathematical language. • Uses informal language • and analogies, (e.g. heart-shaped and hand-shaped • leaves), as well as mathematical terms to describe • shapes. • Identify and name shapes with 4 sides. • Combine shapes with 4 sides • Compose and decompose shapes so that children recognise a shape can have other shapes within it, just as numbers can. • Enjoys partitioning and combining shapes to make new shapes with 2D shapes. **Position and Direction** • Describe a familiar route. • Discuss routes and locations, using words like 'in front of' and 'behind'. • Respond to and use language of position and direction. **Time** • Begin to describe a sequence of events, real or fictional, using words such as 'first', 'then…' • order and sequence events using everyday language related to time. • To describe time in terms of day and night. **Pattern** • Explore simple patterns • Copy and continue simple patterns • Create simple patterns	• Becomes familiar with measuring tools in everyday experiences and play. • Compare weight and find objects that balance. • Use balancing scales. • To describe objects as heavier/lighter. • To build on their understanding of 'full' and 'empty' to further investigate different capacities and how they relate to each other. • To explore how non-standard units can be used to measure capacity. • To compare capacity. • To describe capacity in terms of more/less. • To order capacity from smallest to largest. • Enjoy tackling problems involving prediction and discussion of comparisons of length, weight or capacity, paying attention to fairness and accuracy • Become familiar with measuring tools in everyday experiences and play. **Length, Height and Time** • To compare length in terms of longer/shorter. • Find objects that are the same length. • Explain how they know. • Measure length using non-standard units of measure. • To compare heights in terms of taller/shorter. • Measure height using non-standard units of measure. **Time** • To begin to learn the days of the week. • Discuss what is happening tomorrow, next week or at the weekend. • Explore what you can do in one minute. • To explore how long it takes to do activities. • To explore clocks and calendars. **Shape** • Talk about and explore 3D shapes. • Recognise and name 3-D shapes. • Find 2-D shapes within 3-D shapes • Use 3-D shapes for tasks • Find 3-D shapes in the environment **Pattern** • Identify more complex patterns • Copy and continue patterns • Patterns in the environment	• Find 2-D shapes within 3-D shapes **Pattern and Mapping** • 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 situations • Deepen understanding of patterns and relationships.
Vocab	Triangle, circle, square, rectangle, pattern, smaller, bigger, taller, shorter, longer, heavier, lighter, balance, Mass, weight, more, less, capacity, subitise, count, apparatus, set, counter, more than, less than, numeral, equal to, whole, part, quantity.	Odd, even, subitise, count, apparatus, set, counter, more than, less than, numeral, equal to, whole, part, quantity, full, empty, nearly full, nearly empty, capacity, container, compare, more, less, the most, the least, tall, thin, narrow, wide, shallow, balance, heavier, lighter, more, fewer, scale, length, long, short, longest,	Rekenrek, dice, die, subitise, count, apparatus, set, counter, more than, less than, numeral, equal to, whole, part, quantity, triangle, square, rectangle, circle, cuboid, cone, pyramid, sphere, cylinder, rotate, manipulate, move, explain, pattern, repeat, rule, next, build, make, recreate, scene, move, position, next to, above,

		shortest, height, tall, short, tallest, shortest, evening, tomorrow, next week, weekend, yesterday, last week, last month, last year, day, night, minute, time, first, after, then, next, finally, shape, 3D, flat, face, cylinder, sphere, cone, cube, cuboid, pyramid, 2D, triangle, circle, square, rectangle, pattern, what comes next?	below, in front of, behind, model, instruction, map, build, replicate, repeat, map, follow, route, number story, check,

Weekly Overview

Autumn	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
Focus	**Baseline**			**Subitising** **Talk about measure**	**Counting, ordinality and cardinality** **Talk about measure**	**Composition** **Talk about measure**
				Subitising within 3 Compare size	Focus on counting skills Compare mass	Explore how all numbers are made of 1s Focus on composition of 3 and 4 Compare capacity

	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
	Subitising **Talk about pattern**	**Comparison** **Talk about pattern**	**Counting, Ordinality and cardinality** **Talk about pattern**	**Comparison** **Circles & Triangles**	**Composition** **Circles & Triangles**	**Composition** **Circles & Triangles**
	Subitise objects and sounds Explore simple patterns	Comparison of sets - 'just by looking' Use the language of comparison: more than and fewer than Copy and continue simple patterns	Focus on counting skills Focus on the 'five-ness of 5' using one hand and the die pattern for 5 Create simple patterns	Comparison of sets - by matching Use the language of comparison: more than, fewer than, an equal number Identify and name circles and triangles	Explore the concept of 'whole' and 'part' Compare circles and triangles	Focus on the composition of 3, 4 and 5 Shapes in the environment

	Week 13	Week 14	Week 15
	Counting, ordinality and cardinality **Position**	**Shape** **Time**	**Review**

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	Practise object counting skills Match numerals to quantities within 10 Verb Describe position	Identify and name shapes with 4 sides Combine shapes with 4 sides Shapes in the environment My day and night	

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Summer	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
Focus	**Week 21 / Subitising, Counting & Mass / Counting and Cardinality & Shape**	**Week 22 / Counting, Ordinality and Cardinality / Subitising & Shape / & Mass**	**Week 23 / Composition / Composition & Capacity & Shape**	**Week 24 / Composition / Composition & Capacity & Shape**	**Week 25 / Composition & Comparison & Length & Shape**	**Week 26 / Counting, Ordinality and Cardinality / Review & Shape** **Length**
	Counting – larger sets and things that cannot be seen / Subitise within 5, focus on the patterns Select shapes for a purpose / Match numerals to quantities within 5	Subitising to 6, including ordinality and the 'staircase' pattern / Counting – focus on ordinality and cardinality, arrangement See that each number is one more than the / Rotate shapes	Composition – '5 and a bit' / Focus on 5 Explore capacity Manipulate shapes	Composition of 6 – 7 as '5 and a bit' / Focus on 6, 10 Explain shape Compare capacity / arrangements	Compare sets and linked language of comparison: more than, fewer than, an equal number to / Comparison – use language of quantity Play track game Compose shapes	Subitise to 5 / Subitise objects and sounds Introduce the rekenrek Explore simple patterns Decompose shapes Compare length
	Week 7	**Week 8**	**Week 9**	**Week 10**	**Week 11**	**Week 12**
	Compare mass **Review and Assess Number & Shape**	**Review and Assess Number & Pattern** Find a balance	**Review and Assess Number & Mapping**	**Review and Assess Number & Mapping**	equal **Review and Assess Number & Mapping** Explore length	**Review and Assess Number & Mapping**
	Week 7	**Week 8**	**Week 9**	**Week 10**	**Week 11**	**Week 12**
	Subitise to 5 **Week 17 Comparison & Height** Introduce the rekenrek	Automatic recall of bonds to 5 **Week 18 Composition & Height** Find 2-D shapes within 3-D	Composition of numbers to 10 **Week 19 Composition & Time** Explore own pattern	Comparison **Week 20 Composition & Time** Visualise from different positions	Number patterns **Explore 3D shape** Give instructions to build	Counting **Explore 3D shape** Create own maps from familiar places
	Copy 2-D shape pictures / Focus on ordering of numbers to 8 Use language of less than	Focus on 7 / shapes Identify unit of repeating patterns / Compare height Create own pattern rules	Doubles – explore how some numbers can be made with 2 equal parts / Replicate and build scenes and Talk about time / constructions	Sorting numbers according to attributes - odd and even numbers / Describe positions Order and sequence time	Recognise and name 3-D shapes / Explore 3-D shapes Find 2-D shapes within 3-D shapes / Represent 3-D shapes	Identify more complex patterns / Create maps and plans from story situations Copy and continue patterns / Deepen understanding of patterns and relationships
	Explore height				Use 3-D shapes for tasks 3-D shapes in the environment	Patterns in the environment

Preparation for Year 1:

Number	Shape, Space and Measure

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• count to and across 20, forwards and backwards. • count, read and write numbers to 10 in numerals. • identify and represent numbers using objects and pictorial representations. • use the language of: equal to, more than, less than (fewer), • Subitise numbers to 5 • Begin to learn number bonds to 10 • Know some doubles within 10. • Recognise how to share equally.	• Recognise some 2d shapes (squares, circles, triangles and rectangles) and their features. • Recognise some 3d shapes (sphere, pyramid, cone, cuboid, cube) and their features. • Recognise 2D shapes within 3D shapes • Use non-standard units of measure • Explore capacity, mass and length. • Begin to learn units of time. • To sequence events beginning to use the language of time. • Recognise a clock and calendar • Begin to describe position, direction and movement