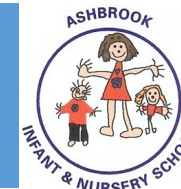


Ashbrook Infant and Nursery School

Progression in Mathematics

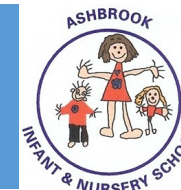


Mathematics In The Early Years Curriculum

Activities and Vocabulary in Nursery that prepare our children to be Mathematicians in

Key Stage 1

<u>Objectives</u>	<u>Activities</u>	<u>Language</u>
<ul style="list-style-type: none"> Develop fast recognition of up to 3 objects, without having to count them individually ('subitising'). Recite numbers past 5. Say one number for each item in order: 1,2,3,4,5. 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. Link numerals and amounts: for example, showing the right number of objects to match the numeral, up to 5. 	<ul style="list-style-type: none"> Point to small groups of two or three objects: "Look, there are two!" Occasionally ask children how many there are in a small set of two or three. Regularly say the counting sequence, in a variety of playful contexts, inside and outdoors, forwards and backwards, sometimes going to high numbers. For example: hide and seek, rocket-launch countdowns. Count things and then repeat the last number. For example: "1, 2, 3 – 3 cars". Point out the number of things whenever possible; so, rather than just 'chairs', 'apples' or 'children', say 'two chairs', 'three apples', 'four children'. Ask children to get you several things and emphasise the total number in your conversation with the child. Use small numbers to manage the learning environment. Suggestions: have a pot labelled '5 pencils' or a crate for '3 trucks'. Draw children's attention to these throughout the session and especially at tidy-up time: "How many pencils should be in this pot?" or "How many have we got?" etc. 	<p>Numbers to 5 in context</p> <p>How many</p> <p>Count</p> <p>Use numbers to describe groups of objects e.g. 3 apples</p> <p>Last number</p> <p>Numbers beyond 5 recited in order</p>
<ul style="list-style-type: none"> Experiment with their own symbols and marks as well as numerals. Solve real world mathematical problems with numbers up to 5. Compare quantities using language: 'more than', 'fewer than'. 	<ul style="list-style-type: none"> Encourage children in their own ways of recording (for example) how many balls they managed to throw through the hoop. Provide numerals nearby for reference. Suggestions: wooden numerals in a basket or a number track on the fence. Discuss mathematical ideas throughout the day, inside and outdoors. Suggestions: "I think Jasmin has got more crackers..." Support children to solve problems using fingers, objects and marks: "There are four of you, but there aren't enough chairs...." Draw children's attention to differences and changes in amounts, such as those in stories like 'The Enormous Turnip'. 	<p>How many</p> <p>Number 0-5</p> <p>More, less, the same, enough</p> <p>Altogether, left</p>



Mathematics In The Early Years Curriculum

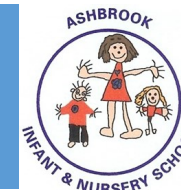
Activities and Vocabulary in Nursery that prepare our children to be Mathematicians in

Key Stage 1

<u>Objectives</u>	<u>Activities</u>	<u>Language</u>
<ul style="list-style-type: none"> 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'. 	<ul style="list-style-type: none"> Encourage children to play freely with blocks, shapes, shape puzzles and shape-sorters. Sensitively support and discuss questions like: "What is the same and what is different?" Encourage children to talk informally about shape properties using words like 'sharp corner', 'pointy' or 'curvy'. Talk about shapes as you play with them: "We need a piece with a straight edge." 	<p>Names of common shapes – circle, square, triangle, rectangle, cube, cuboid, sphere, cylinder.</p> <p>Language to describe properties – sides, corners, edges, straight, round, flat, roll,</p> <p>Informal language – pointy, curvy, sharp corner etc.</p>
<ul style="list-style-type: none"> 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'. 	<ul style="list-style-type: none"> Discuss position in real contexts. Suggestions: how to shift the leaves off a path or sweep water away down the drain. Use spatial words in play, including 'in', 'on', 'under', 'up', 'down', 'besides' and 'between'. Suggestion: "Let's put the troll under the bridge and the billy goat beside the stream." Take children out to shops or the park: recall the route and the order of things seen on the way. Set up obstacle courses, interesting pathways and hiding places for children to play with freely. When appropriate, ask children to describe their route and give directions to each other. Provide complex train tracks, with loops and bridges, or water-flowing challenges with guttering that direct the flow to a water tray, for children to play freely with. Read stories about journeys, such as 'Rosie's Walk' 	<p>In, on, under, up, down, besides, next to, in front, behind, outside and between.</p>

Ashbrook Infant and Nursery School

Progression in Mathematics



Mathematics In The Early Years Curriculum

Activities and Vocabulary in Nursery that prepare our children to be Mathematicians in

Key Stage 1

<u>Objectives</u>	<u>Activities</u>	<u>Language</u>
<ul style="list-style-type: none"> 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’. 	<ul style="list-style-type: none"> Discuss position in real contexts. Suggestions: how to shift the leaves off a path or sweep water away down the drain. Use spatial words in play, including ‘in’, ‘on’, ‘under’, ‘up’, ‘down’, ‘besides’ and ‘between’. Suggestion: “Let’s put the troll under the bridge and the billy goat beside the stream.” Take children out to shops or the park: recall the route and the order of things seen on the way. Set up obstacle courses, interesting pathways and hiding places for children to play with freely. When appropriate, ask children to describe their route and give directions to each other. Provide complex train tracks, with loops and bridges, or water-flowing challenges with guttering that direct the flow to a water tray, for children to play freely with. Read stories about journeys, such as ‘Rosie’s Walk’ 	<p>In, on, under, up, down, besides, next to, in front, behind, outside and between.</p>
<ul style="list-style-type: none"> Make comparisons between objects relating to size, length, weight and capacity. 	<ul style="list-style-type: none"> Provide experiences of size changes. Suggestions: “Can you make a puddle larger?”, “When you squeeze a sponge, does it stay small?”, “What happens when you stretch dough, or elastic?” Talk with children about their everyday ways of comparing size, length, weight and capacity. Model more specific techniques, such as lining up ends of lengths and straightening ribbons, discussing accuracy: “Is it exactly...?” 	<p>Big, little, large, larger, small, smaller Long, longer, short, shorter Tall, taller, short, shorter Heavy, Heavier, light, lighter Measure The same Carefully Line up Balance Full, empty</p>

Ashbrook Infant and Nursery School

Progression in Mathematics



Mathematics In The Early Years Curriculum

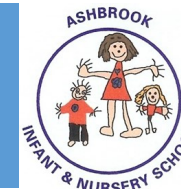
Activities and Vocabulary in Nursery that prepare our children to be Mathematicians in

Key Stage 1

<u>Objectives</u>	<u>Activities</u>	<u>Language</u>
<ul style="list-style-type: none">• Select shapes appropriately: flat surfaces for building, a triangular prism for a roof, etc.• Combine shapes to make new ones – an arch, a bigger triangle, etc.	<ul style="list-style-type: none">• Provide a variety of construction materials like blocks and interlocking bricks.• Provide den-making materials.• Allow children to play freely with these materials, outdoors and inside.• When appropriate, talk about the shapes and how their properties suit the purpose.• Provide shapes that combine to make other shapes, such as pattern blocks and interlocking shapes, for children to play freely with.• When appropriate, discuss the different designs that children make.• Occasionally suggest challenges, so that children build increasingly more complex constructions.• Use tidy-up time to match blocks to silhouettes or fit things in containers, describing and naming shapes. Suggestion: “Where does this triangular one /cylinder / cuboid go?”	<p>Names of common shapes – circle, square, triangle, rectangle, cube, cuboid, sphere, cylinder.</p> <p>Language to describe properties – sides, corners, edges, straight, round, flat</p> <p>Informal language – pointy, curvy, sharp corner etc.</p>

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Progression in Mathematics



Mathematics In The Early Years Curriculum

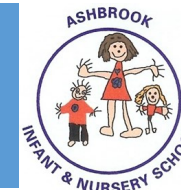
Activities and Vocabulary in Nursery that prepare our children to be Mathematicians in

Key Stage 1

<u>Objectives</u>	<u>Activities</u>	<u>Language</u>
<ul style="list-style-type: none"> • 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. • Begin to describe a sequence of events, real or fictional, using words such as 'first', 'then...' 	<ul style="list-style-type: none"> • Provide patterns from different cultures, such as fabrics. • Provide a range of natural and everyday objects and materials, as well as blocks and shapes, for children to play with freely and to make patterns with. • When appropriate, encourage children to continue patterns and spot mistakes. • Engage children in following and inventing movement and music patterns, such as clap, clap, stamp. • Talk about patterns of events, in cooking, gardening, sewing or getting dressed. Suggestions: • 'First', 'then', 'after', 'before' • "Every day we..." "Every evening we..." • Talk about the sequence of events in stories. • Use vocabulary like 'morning', 'afternoon', 'evening' and 'night-time', 'earlier', 'later', 'too late', 'too soon', 'in a minute'. • Count down to forthcoming events on the calendar in terms of number of days or sleeps. • Refer to the days of the week, and the day before or day after, 'yesterday' and 'tomorrow'. 	<p>Patterns, same, different,</p> <p>Stripy, spotty, blobs, checks, lines, squares, circles</p> <p>Pointy, flat, straight, curved</p> <p>Copy</p> <p>First, then, after, before, next</p> <p>Morning, afternoon, evening, night time, earlier, later, too late, too soon, in a minute</p> <p>Yesterday, today, tomorrow</p> <p>Days of the week</p>

Ashbrook Infant and Nursery School

Progression in Mathematics



Mathematics In The Early Years Curriculum

Activities and Vocabulary in Reception that prepare our children to be Mathematicians in

Key Stage 1

<u>Objectives</u>	<u>Activities</u>	<u>Language</u>
<ul style="list-style-type: none"> Subitise 	<ul style="list-style-type: none"> Show small quantities in familiar patterns (for example, dice) and random arrangements. Play games which involve quickly revealing and hiding numbers of objects. Put objects into five frames and then ten frames to begin to familiarise children with the tens structure of the number system. Prompt children to subitise first when enumerating groups of up to 4 or 5 objects: "I don't think we need to count those. They are in a square shape so there must be 4." Count to check. Encourage children to show a number of fingers 'all at once', without counting. 	<p>How many Look Five frame Ten frame Full How many How many more All at once Without counting Numbers to 0-5 then introduce with numbers 5-10</p>
<ul style="list-style-type: none"> Link the number symbol (numeral) with its cardinal number value. 	<ul style="list-style-type: none"> Display numerals in order alongside dot quantities or tens frame arrangements. Play card games such as snap or matching pairs with cards where some have numerals, and some have dot arrangements. Discuss the different ways children might record quantities (for example, scores in games), such as tallies, dots and using numeral cards 	<p>Match Numbers 0-10 Numbers</p>

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Progression in Mathematics



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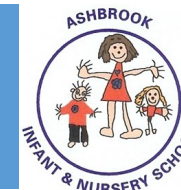
Activities and Vocabulary in Reception that prepare our children to be Mathematicians in

Key Stage 1

<u>Objectives</u>	<u>Activities</u>	<u>Language</u>
<ul style="list-style-type: none">Count beyond ten.	<ul style="list-style-type: none">Count verbally beyond 20, pausing at each multiple of 10 to draw out the structure, for instance when playing hide and seek, or to time children getting ready.Provide images such as number tracks, calendars and hundred squares indoors and out, including painted on the ground, so children become familiar with two-digit numbers and can start to spot patterns within them.	Numbers beyond 20, when counting 20,30,40,50,60,70,80,90,100 Next, before, after, in between patterns
<ul style="list-style-type: none">Compare numbers.	<ul style="list-style-type: none">Provide collections to compare, starting with a very different number of things.Include more small things and fewer large things, spread them out and bunch them up, to draw attention to the number not the size of things or the space they take up. Include groups where the number of items is the same. Use vocabulary: 'more than', 'less than', 'fewer', 'the same as', 'equal to'.Encourage children to use these words as well. Distribute items evenly, for example: "Put 3 in each bag," or give the same number of pieces of fruit to each child.Make deliberate mistakes to provoke discussion.Tell a story about a character distributing snacks unfairly and invite children to make sure everyone has the same.	More, less More than, less than, fewer than, the same as, equal to Share, each, the same, fair

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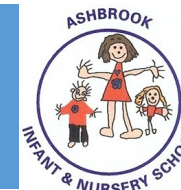
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Key Stage 1

<u>Objectives</u>	<u>Activities</u>	<u>Language</u>
<ul style="list-style-type: none"> Understand the 'one more than/one less than' relationship between consecutive numbers 	<ul style="list-style-type: none"> Make predictions about what the outcome will be in stories, rhymes and songs if one is added, or if one is taken away. Provide 'staircase' patterns which show that the next counting number includes the previous number plus one. 	<p>More, less Before, after 1 more, 1 less Add 1, take away 1, subtract Up, down, back, forward</p>
<ul style="list-style-type: none"> Explore the composition of numbers to 10. 	<ul style="list-style-type: none"> Focus on composition of 2, 3, 4 and 5 before moving onto larger numbers Provide a range of visual models of numbers: for example, six as double three on dice, or the fingers on one hand and one more, or as four and two with ten frame images. Model conceptual subitising: "Well, there are three here and three here, so there must be six." Emphasise the parts within the whole: "There were 8 eggs in the incubator. Two have hatched and 6 have not yet hatched." Plan games which involve partitioning and recombining sets. For example, throw 5 beanbags, aiming for a hoop. How many go in and how many don't? 	<p>2,3,4,5 How can we make... Show me ... Can you show me a different way? How many ways can we find? Add, take away, subtract More, less Altogether Is equal to</p>

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Progression in Mathematics

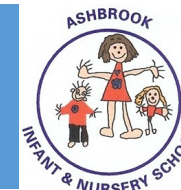


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Activities and Vocabulary in Reception that prepare our children to be Mathematicians in

Key Stage 1

<u>Objectives</u>	<u>Activities</u>	<u>Language</u>
<ul style="list-style-type: none"> Automatically recall number bonds for numbers 0–5 and some to 10. 	<ul style="list-style-type: none"> Focus on composition of 2, 3, 4 and 5 before moving onto larger numbers Provide a range of visual models of numbers: for example, six as double three on dice, or the fingers on one hand and one more, or as four and two with ten frame images. Model conceptual subitising: “Well, there are three here and three here, so there must be six.” Emphasise the parts within the whole: “There were 8 eggs in the incubator. Two have hatched and 6 have not yet hatched.” Plan games which involve partitioning and recombining sets. For example, throw 5 beanbags, aiming for a hoop. How many go in and how many don’t? 	2,3,4,5 How can we make... Show me ... Can you show me a different way? How many ways can we find? Add, take away, subtract More, less Altogether Is equal to
<ul style="list-style-type: none"> Select, rotate and manipulate shapes to develop spatial reasoning skills 	<ul style="list-style-type: none"> Provide high-quality pattern and building sets, including pattern blocks, tangrams, building blocks and magnetic construction tiles, as well as found materials. Challenge children to copy increasingly complex 2D pictures and patterns with these 3D resources, guided by knowledge of learning trajectories: “I bet you can’t add an arch to that,” or “Maybe tomorrow someone will build a staircase.” Teach children to solve a range of jigsaws of increasing challenge. 	As Nursery plus: Triangular, round Fits, balance, side, shape, size Match, copy turn



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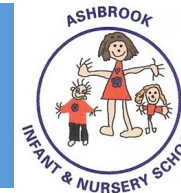
Activities and Vocabulary in Reception that prepare our children to be Mathematicians in

Key Stage 1

<u>Objectives</u>	<u>Activities</u>	<u>Language</u>
<ul style="list-style-type: none"> Compose and decompose shapes so that children recognise a shape can have other shapes within it, just as numbers can. 	<ul style="list-style-type: none"> Investigate how shapes can be combined to make new shapes: for example, two triangles can be put together to make a square. Encourage children to predict what shapes they will make when paper is folded. Wonder aloud how many ways there are to make a hexagon with pattern blocks. Find 2D shapes within 3D shapes, including through printing or shadow play. 	<p>As nursery plus: Join, fit, together, separate, make, combine Introduce additional shapes e.g. diamond, semi-circle, hexagon, octagon, prism, pyramid etc.</p>
<ul style="list-style-type: none"> Continue, copy and create repeating patterns. 	<ul style="list-style-type: none"> Make patterns with varying rules (including AB, ABB and ABBC) and objects and invite children to continue the pattern. Make a deliberate mistake and discuss how to fix it. 	<p>As Nursery plus: Patterns Continue, copy, repeat What comes next?</p>
<ul style="list-style-type: none"> Compare length, weight and capacity 	<ul style="list-style-type: none"> Model comparative language using 'than' and encourage children to use this vocabulary. For example: "This is heavier than that." Ask children to make and test predictions. "What if we pour the jugful into the teapot? Which holds more?" 	<p>As Nursery plus: Using than to compare e.g. taller than, shorter than, holds more, holds less Half full, half empty, overflowing Longest, shortest, heaviest, lightest, tallest, smallest,</p>

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Progression in Mathematics

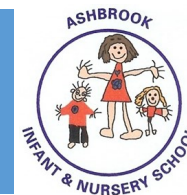


	Year 1	Year 2	Year 3
Place Value: Counting	<ul style="list-style-type: none"> Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number. Count numbers to 100 in numerals; count in multiples of twos, fives and tens. <p>Autumn 1 / Autumn 2 Spring 2 / Spring 4</p>	<ul style="list-style-type: none"> Count in steps of 2, 3 and 5 from 0 and in tens from any number, forwards and backwards. <p>Autumn 1</p>	<ul style="list-style-type: none"> Count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number. <p>Autumn 1 / Autumn 3</p>

	Year 1	Year 2	Year 3
Place Value: Represent	<ul style="list-style-type: none"> Identify and represent numbers using objects and pictorial representations . Read and write numbers to 100 in numerals . Read and write numbers from 1 to 20 in numerals and words. <p>Autumn 1 / Autumn 2 Spring 2 / Spring 4</p>	<ul style="list-style-type: none"> Read and write numbers to at least 100 in numerals and in words. Identify, represent and estimate numbers using different representations, including a number line. <p>Autumn 1</p>	<ul style="list-style-type: none"> Identify, represent and estimate numbers using different representations. Read and write numbers up to 1000 in numerals and in words. <p>Autumn 1</p>

Ashbrook Infant and Nursery School

Progression in Mathematics



	Year 1	Year 2	Year 3
Place Value: Use PV and Compare	<ul style="list-style-type: none"> Given a number, identify one more and one less. <p>Autumn 1 / Autumn 4 Spring 2 / Summer 4</p>	<p>Recognise the place value of each digit in a two-digit number (tens, ones.)</p> <p>Compare and order numbers from 0 up to 100; use $<$ $>$ and $=$ signs.</p> <p>Autumn 1</p>	<ul style="list-style-type: none"> Recognise the place value of each digit in a three-digit number (hundreds, tens, ones.) Compare and order numbers up to 1000. <p>Autumn 1</p>

	Year 1	Year 2	Year 3
Place Value: Problems and Rounding		<ul style="list-style-type: none"> Use place value and number facts to solve problems. <p>Autumn 1</p>	<ul style="list-style-type: none"> Solve number problems and practical problems involving these ideas. <p>Autumn 1</p>

Ashbrook Infant and Nursery School

Progression in Mathematics

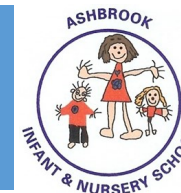


	Year 1	Year 2	Year 3
Addition & Subtraction: Recall, Represent, Use	<ul style="list-style-type: none"> Read, write and interpret mathematical statements involving addition (+) subtraction (-) and equals (=) signs. Represent and use number bonds and related subtraction facts within 20. <p>Autumn 2 Spring 1</p>	<ul style="list-style-type: none"> Recall and use addition and subtraction facts to 20 fluently and derive and use related facts up to 100. 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 calculation and solve missing number problems. <p>Autumn 2</p>	<ul style="list-style-type: none"> Estimate the answer to a calculation and use inverse operations to check answers. <p>Autumn 2</p>

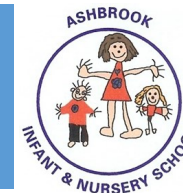
	Year 1	Year 2	Year 3
Addition & Subtraction: Calculations	<ul style="list-style-type: none"> Add and subtract one digit and two digit numbers to 20, including zero. <p>Autumn 2 Spring 1</p>	<ul style="list-style-type: none"> Add and subtract numbers using concrete objects, pictorial representations and mentally, including: <ul style="list-style-type: none"> ◇ A two digit number and ones ◇ A two digit number and tens ◇ Two two digit numbers ◇ Adding three one digit numbers. <p>Autumn 2</p>	<ul style="list-style-type: none"> Add and subtract numbers mentally, including: <ul style="list-style-type: none"> ◇ A three digit number and ones ◇ A three digit number and tens ◇ A three digit number and hundreds Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction. <p>Autumn 2</p>

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Progression in Mathematics



	Year 1	Year 2	Year 3
Addition & Subtraction: Solve Problems	<ul style="list-style-type: none"> Solve one-step problems that involve addition and subtraction using concrete objects and pictorial representations and missing number problems. <p>Autumn 2 Spring 1</p>	<ul style="list-style-type: none"> Solve problems with addition and subtraction: <ul style="list-style-type: none"> ◇ using concrete objects and pictorial representations, including those involving numbers, quantities and measures. ◇ Applying their increasing knowledge of mental and written methods. <p>Autumn 2</p>	<ul style="list-style-type: none"> Solve problems, including missing number problems using number facts, place value and more complex addition and subtraction. <p>Autumn 2</p>
	Year 1	Year 2	Year 3
Multiplication & Division: Recall, Represent, Use		<ul style="list-style-type: none"> Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables including recognising odd and even numbers. Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot. <p>Autumn 4 Spring 1</p>	<ul style="list-style-type: none"> Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables. <p>Autumn 3</p>



	Year 1	Year 2	Year 3
Multiplication & Division: Calculations		<ul style="list-style-type: none"> Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (x) division (/) and equals (=) signs <p>Autumn 4 Spring 1</p>	<ul style="list-style-type: none"> Write and calculate mathematical statements for multiplication and division using the mathematical tables that they know including for two-digit numbers times one digit numbers using mental and progressing to formal written methods. <p>Autumn 3 Spring 1</p>
	Year 1	Year 2	Year 3
Multiplication & Division Solve Problems	<ul style="list-style-type: none"> 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. <p>Summer 1</p>	<ul style="list-style-type: none"> Solve problems involving multiplication and division using materials, arrays, repeated addition, mental methods and multiplication and division facts including problems in contexts. <p>Autumn 4 Spring 1</p>	<ul style="list-style-type: none"> 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. <p>Spring 1</p>



	Year 1	Year 2	Year 3
Fractions: Recognise and Write	<ul style="list-style-type: none"> 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. <p>Summer 2</p>	<ul style="list-style-type: none"> Recognise, find, name and write fractions $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{4}$, and $\frac{3}{4}$ of a length, shape, set of objects or quantity. <p>$\frac{1}{3}$</p> <p>Spring 2</p>	<ul style="list-style-type: none"> Count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10. Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators. Recognise and use fractions as numbers; unit fractions and non-unit fractions with small denominators. <p>Spring 5</p>
	Year 1	Year 2	Year 3
Fractions: Compare		<ul style="list-style-type: none"> Recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$ <p>Spring 4</p>	<ul style="list-style-type: none"> Recognise and show, using diagrams, equivalent fractions with small denominators. Compare and order unit fractions, and fractions with the same denominators. <p>Summer 1</p>



	Year 1	Year 2	Year 3
Fractions: Calculations		<ul style="list-style-type: none"> Write simple fractions, for example $1/2$ of $6 = 3$ $\frac{1}{3}$ Spring 4	<ul style="list-style-type: none"> Add and subtract fractions with the same denominator within one whole (for example $5/7 + 1/7 = 6/7$) Summer 1
	Year 1	Year 2	Year 3
Fractions: Solve Problems			<ul style="list-style-type: none"> Solve problems that involve all of the above. Spring 5 Summer 1



	Year 1	Year 2	Year 3
Measurement: Using Measures	<ul style="list-style-type: none"> • Compare, describe and solve practical problems for: <ul style="list-style-type: none"> ◇ Lengths and heights (for eg. long/short, longer/shorter, tall/short, double/half) ◇ Mass/weight (for eg. heavy/light, heavier than, lighter than.) ◇ Capacity and volume (for eg. full/empty, more than, less than, half, half full, quarter.) ◇ Time (for eg. Quicker, slower, earlier, later.) • Measure and begin to record the following: <ul style="list-style-type: none"> ◇ Lengths and heights ◇ Mass/weight ◇ Capacity and volume • Solve problems that involve all of the above. <ul style="list-style-type: none"> ◇ Time (hours, minutes, seconds.) <p>Spring 3 / Spring 4 Summer 6</p>	<ul style="list-style-type: none"> • Choose and use appropriate standard units to estimate and measure: <ul style="list-style-type: none"> ◇ Length/height in any direction (m/cm) ◇ Mass (g/kg) ◇ Temperature (deg c) ◇ Capacity (ml/litres) to the nearest appropriate unit,. <p>Using rulers, scales, thermometers and measuring vessels.</p> <ul style="list-style-type: none"> • Compare and order lengths, mass, volume/ capacity and record the results using <p>Spring 5 Summer 4</p>	<ul style="list-style-type: none"> • Measure, compare, add and subtract: <ul style="list-style-type: none"> ◇ Lengths (mm/cm/m) ◇ Mass (g/kg) ◇ Volume/capacity (ml/l) <p>Spring 4 Summer 4</p>



	Year 1	Year 2	Year 3
Measurement: Time	<ul style="list-style-type: none"> Sequence events in chronological order using language (for eg. before, 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. <p>Summer 6</p>	<ul style="list-style-type: none"> 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. <p>Summer 3</p>	<ul style="list-style-type: none"> Tell and write the time from an analogue clock, including using Roman numerals from 1 to X11 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 (for example to calculate the time taken by particular events or tasks.) <p>Summer 2</p>



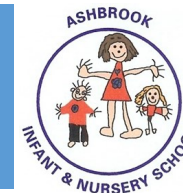
	Year 1	Year 2	Year 3
Geometry: 2-D Shapes	<ul style="list-style-type: none"> Recognise and name 2D shapes (for eg. Rectangles, squares, circles and triangles.) <p>Autumn 3</p>	<ul style="list-style-type: none"> Identify and describe the properties of 2D shapes including the number of sides and line symmetry in a vertical line. Identify 2D shapes on the surface of 3D shapes (for eg. a circle, on a cylinder and a triangle on a pyramid.) Compare and sort common 2D shapes and everyday objects. <p>Spring 3</p>	<ul style="list-style-type: none"> Draw 2D shapes. <p>Summer 3</p>
	Year 1	Year 2	Year 3
Geometry: 3D Shapes	<ul style="list-style-type: none"> Recognise and name common 3D shapes (for eg. cuboids, cubes, pyramids and spheres. <p>Autumn 3</p>	<ul style="list-style-type: none"> Recognise and name common 3D shapes (for eg. cuboids, cubes, pyramids and spheres. Compare and sort common 3D shapes and everyday objects. <p>Spring 3 Spring 4</p>	<ul style="list-style-type: none"> Make 3D shapes using modelling materials; recognise 3D shapes in different orientations and describe them. <p>Summer 3</p>



	Year 1	Year 2	Year 3
Measurement: Money	<ul style="list-style-type: none">Recognise and know the value of different denominations of coins and notes. <p>Summer 5</p>	<ul style="list-style-type: none">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. <p>Autumn 3</p>	<ul style="list-style-type: none">Add and subtract amounts of money to give change, using both £ and p in practical contexts. <p>Spring 2</p>



	Year 1	Year 2.	Year 3
Geometry: Position & Direction	<ul style="list-style-type: none"> Describe position, direction and movement including whole, half quarter and three quarter turns. <p>Summer 3</p>	<ul style="list-style-type: none"> 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 anti-clockwise.) <p>Spring 3 Summer 1</p>	



	Year 1	Year 2	Year 3
Statistics: Present and Interpret		<ul style="list-style-type: none"> Interpret and construct simple pictograms, tally charts, block diagrams and simple tables. <p>Spring 2</p>	<ul style="list-style-type: none"> Interpret and present data using bar charts, pictograms and tables. <p>Summer 3</p>
	Year 1	Year 2	Year 3
Statistics: Solve Problems		<ul style="list-style-type: none"> 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. <p>Spring 2</p>	<ul style="list-style-type: none"> Solve one-step and two-step questions (for eg. 'How many more?' and 'How many fewer?') using information presented in scaled bar charts and pictograms and tables. <p>Spring 3</p>