Maths

Tadpoles	Frogs	Reception
• *Has an awareness of routines* • Can take part in finger rhymes with numbers • *Can recite numbers in sequence up to 5* • Can compare quantities, and begins to show an awareness in more/less • *Begins to spot amounts around the room, for example, 'there's two, I'm two'* • *Begins to show an interest in counting objects* • *Begins to recognise numerals 0-3* • *Shows an interest in number* • *Can count actions such as jumps, claps, hops* • *Begins to sort various objects into categories such as shape, size, colours* • *Uses the language of size, such as big, little, tiny, small, huge, tall* • *Begins to represent number using their fingers* • Spots different patterns in the environment such as stripes, polka dots, etc. • *Shows an interest in shape*	• Talks about everyday routines using language such as first, then etc. • Can subitise to 3 (without counting) • *Can recite numbers 1-10 forwards and backwards* • *Can count forwards to 20.* • Compares quantities using language such as more, less, fewer, same • Describe a familiar route and locations, using words like 'in front of' and 'behind'. • *Orders numbers 0-5 forwards and backwards* • *Counts out quantities to match numerals 0-5* • Know that the last number reached when counting a small set of objects tells you how many there are in total ('cardinal principle'). • Shows fingers to represent up to 5 • *Compares height, length, weight, and capacity, uses language such as heavy, light, full, empty, tall, short* • Explores 2D shapes and uses words to describe them such as pointy, round, sides, corners etc. • *Explores 3D shapes through building and making models.* • *Recognises numerals 0-5*	• *Can subitise to 5 (without counting)* • Can recite numbers up to and beyond 20, understanding the pattern used when counting. • *Recognises numerals to 20.* • *Have a deep understanding of numbers to 10: one more/one less, what numbers are made up of, the 'threeness of 3', 'fourness of 4' etc.* • *Compare quantities to 10, using greater/more than & less/fewer than.* • *Automatically recalls number bonds to 5, without rhymes, and begins to recall number bonds to 10.* • *Uses resources to solve addition and subtraction number problems involving single numbers to 10.* • *Explores patterns within numbers to 10 including odds and evens, halving, doubling and sharing.* • *Can recognise and begin to name 2D & 3D shapes.* • *Uses language and resources to talk about size, weight, capacity, position, distance, time and money.* • *Uses mathematical language to describe 2D and 3D shapes, including sides, corners, edges, faces.* • *Recognises, creates and describes patterns such as AB & ABC patterns.*

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	• Can copy and follow on an ABAB pattern, correcting errors in patterns • Says one number name for each item • Solves real world maths problems with numbers up to five • Experiments with symbols and marks as well as numerals • Understands positions through language alone, e.g. under, over, on top • Selects shapes appropriately to build and recreate models combining shapes to create new ones	• *Understands the meaning of time and is able to use language such as, morning, afternoon, evening, first, then, now accurately, to begin sequencing events.* • *Begins to explore different resources such as watch, clock, stopwatch and counting, to measure periods of time.*	
Children show an interest in shape, being able to sort objects by size, shape, and colour. Children can use the language of size and are beginning to show an interest in patterns. Children show an interest in number, recognising numerals to 3, reciting numbers to 5, counting actions, and representing amounts on their fingers. Children begin to spot and compare amounts in the environment.	Children uses their language to talk about everyday routines, and describe familiar routes and locations using prepositional language. Children explore 2D and 3D shapes. Children can select shapes to build and recreate models and patterns using language such as round and pointy to described shapes. Children enjoy solving maths problems and can recite numbers 1-10 forwards and backwards, recognising numerals 0-5 and being able to order these in sequence. Children can count objects to 5 matching the correct quantity and knowing the last number counted is the total amount. Children can recognise small quantities of objects without counting and can represent quantities on their fingers.	Children have a deep understanding of numbers to 10, including knowing number bonds to 5 and some number bonds to 10 and know the 'threeness of three' for example. Children can subitise to 5. Children can verbally count to and past 20, recognising the pattern of the counting system. Children can compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity. Children can explore and represent patterns within numbers to 10, including evens and odds, double facts and how quantities can be distributed equally. Children can add and subtract single digits. Children can confidently recognise and begin to name 2D and 3D shapes and use mathematical language to describe these. Children explore time as a concept and use different resources to measure periods of	

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		time as well as confidently use language to talk about time and sequence events. Children confidently use mathematical language to talk about size, position, distance, length, weight, capacity, money.	

- Children will use their prior knowledge and apply this in the following way:
- In Year 1 children are expected to count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number. To prepare children for this, in Reception we practise counting to 20 and beyond forwards and backwards and beginning with different numbers within 20.
- In Year 1 children are expected to count, read and write numbers to 100 in numerals. To prepare for this, in Reception children gain a deep understanding of numbers to 10 as well as recognise numbers to 20 and count beyond 20.
- In Year 1, when given a number, children are expected to identify one more and one less. To prepare for this, in Reception, children practise finding one more and one less than a number up to 10.
- In Year 1, children are expected to 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. To prepare children for this, in Reception children represent numbers to 20 using different methods such as resources and pictures. Children also begin to practise mathematical comparisons such as more and fewer.
- In Year 1 children are expected to read and write numbers from 1 to 20 in numerals and words. To prepare children for this, in Reception practise counting to 20 and beyond and being to recognise numbers to 20.

- In Year 1 children are expected to read, write and interpret mathematical statements involving addition (+), subtraction (–) and equals (=) signs. To prepare for this, in Reception children are introduced to number sentences and practise reading and writing number sentences to show addition and subtraction within 10.
- In Year 1 children are expected to represent and use number bonds and related subtraction facts within 20. To prepare for this, in Reception children recall number bonds to 5 and begin to recall number bonds to 10.
- In Year 1 children are expected to add and subtract one-digit and two-digit numbers to 20, including zero. To prepare for this, in Reception children practise adding and subtracting single digits up to 10.
- In Year 1 children are expected to solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations. To prepare for this, in Reception children solve addition and subtraction problems within 10 and practise using different resources such as concrete to help.

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- In Year 1 children are expected to recognise, find and name a half as one of two equal parts of an object, shape or quantity. To prepare for this, in Reception children begin to find half of shapes and numbers using concrete resources and the concept of sharing.
- In Year 1 children are expected 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]. To prepare for this, in reception children begin to use mathematical language to describe and compare length, height, weight, capacity and time through exploration.
- In Year 1 children are expected to recognise and know the value of different denominations of coins and notes. To prepare for this, in Reception children are introduced to money/coins up to 20p and begin to use mathematical language to talk about money.
- In Year 1 children are expected to sequence events in chronological order using language [for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening] To prepare for this, in Reception children begin to sequence their days and orally talk about when different events happen during the day.
- In Year 1 children are expected to recognise and use language relating to dates, including days of the week, weeks, months and years. To prepare for this, in Reception we use a calendar to talk about the day and month which we are in and the sequence of these.
- In Year 1 children are expected 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]. To prepare for this, in Reception children begin to use mathematical language to talk about shapes and the suitability of these for different uses such as building.
- In Year 1 children are expected to describe position, direction and movement. To prepare for this, in Reception children begin to use mathematical langue to describe position such as on top of, behind, in front of, next to.
- In year 1, children are expected to be able to talk how they have solved a calculation, for example knowing that 5+4=9 because they know that double 5 is 10 and 4 is one less than 5 so it is 9 because 9 is one less than 10. In Reception, children explore doubles and number bonds to 10 through various resources such as numicon. Our Maths curriculum is heavily focussed on numbers to 10 to develop a deep understanding of those numbers to 10.