Waverton Primary School

Learning Together – Achieving Together

Maths in EYFS

In the Foundation Stage children will be taught Maths skills through the Specific Area Mathematics**.** Mathematics consists of two aspects, **Number** and **Numerical Patterns**. Children will take part in whole class Maths lessons, guided group sessions and when appropriate 1:1 sessions. Children will be given the opportunity to explore and investigate through their self- initiated play. Shape, space and measure will be taught alongside Number and Numerical Pattern.

Below are the Development Matters statements for the Specific Area **Mathematics**, and the two aspects, **Number** and **Numerical Patterns**. Please note, the statements and ELGs are not the EYFS curriculum. Through carefully planned activities, chosen by us, activities based around the interests of the children and children working and exploring independently they will develop their Mathematics skills.

3-4 Years

- 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.
- 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'.
- 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'.
- 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'.
- Make comparisons between objects relating to size, length, weight and capacity
- 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.
- Talk about and identifies 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...'

Reception

- Count objects, actions and sounds.
- Subitise.
- Link the number symbol (numeral) with its cardinal number value
- Count beyond ten.
- Compare numbers
- 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 0–10.
- Select, rotate and manipulate shapes in order to develop spatial reasoning skills.
- Compose and decompose shapes so that children recognise a shape can have other shapes within it, just as numbers can.
- Continue, copy and create repeating patterns.
- Compare length, weight and capacity.

ELG Number

- **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.**

ELG Numerical Patterns

- **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**

Waverton Primary School

Learning Together – Achieving Together

Yearly Maths Overview Texts

Autumn 1 Only One you / I wanna be like you…		Autumn 2 Celebrations	
Objectives: Numbers to 5 Sorting Comparing Groups	**Text and Rhymes:** The Three Bears The Three Pigs Goldilocks Three Blind Mice Five Little Speckled Frogs Five Little Ducks Five Currant Buns Five Little Men in a Flying Saucer Washing Line Jez Alborough – taking away Anno's Counting book- adding 1 more Frog and Toad- Alost Button- Arnold Lobel- sorting The Button Box M Reid-sorting The Gingerbread Man- Comparing Groups The Enormous Turnip- Comparing Groups Mr Gumpy's Outing- Comparing Groups	**Objectives:** Addition and Subtraction to 5 1 more and 1 Less Time- My Day	**Text and Rhymes:** Previous stories and rhymes The Very Hungry Caterpillar Eric Carle- time Maisy Goes Camping Lucy Cousins Five Little Ducks -Denise Fleming Five Tiddly Widdly Tadpoles – Debbie Tarbett Five Little Monkeys Jumping on the Bed- Eileen Christelow The Bad Tempered Ladybird Eric Carl – time A Second is a Hiccup Hazel Hutchins Peace at Last Jill Murphy Alfie at Nursery School Shirley Hughes- My day
Spring 1 How to Catch a Star		**Spring 2 Superheroes**	
Objectives: Number Bonds to 5 Numbers to 10 2D Shape	**Text and Rhymes:** Previous stories and rhymes Days of the Week Song 1,2 buckle my shoe Little Miss Muffet The Very Busy Spider How do Dinosaurs count to 10? Yoel & Teague The Terrible Dinosaurs Paul Stickland Feast for 10 Catherine Falwell Play hopscotch to 10	**Objectives:** Addition and Subtraction to 10 3D Shape Positional language Doubles	**Text and Rhymes** Supertato Sue Hendra & Paul Linnet Quack and Count Keith Baker Animals on Board Stuart Murphy We're Going on a Bear Hunt Michael Rosen Rosie's Walk Pat Hutchins Little red Riding Hood Mrs Wishy Washy Joe Cowling Me on a Map Joan Sweeney In and Out the Dusty Blue Bells The Shape book Series Mac Barbett & Jon Klassen
Summer 1 Castles		**Summer 2 Out and About**	
Objectives: Exploring Pattern Count to 20 Count on and Back to 20 and beyond- addition/ subtraction- greater /less than Money	**Text and Rhymes :** Princess Mirror Belle Julia Donaldson Princess and the Wizard Julia Donaldson Zog Julia Donaldson Pattern Bugs Trudy Harris Tongue Twisters Pattern red lorry, yellow lorry Clap your hands and wiggle your fingers song Duck duck goose game We will rock you Queen clapping song AAB pattern song – Musical Maths youtube Mouse Count Ellen Stoll Walsh The Shopping Basket John Burningham Kippers Toy Box Mick Inkpen Incy Wincy Spider	**Objectives:** Number patterns- doubles, halves Odd and Even numbers Length Capacity Weight	**Text and Rhymes:** The Hungry Caterpillar Eric Carle The Bad Tempered Ladybird Eric Carle – time The Busy Spider Eric Carle The Snail and the Whale Julia Donaldson Superworm Julia Donaldson Oliver's Vegetables Vivian French This is the Story of Alison Hubble Allan Ahlberg The Doorbell Rang Pat Hutchins Bean Thirteen Matthew McElligott Maths Storytime Nrich Six Dinner SidnInga Moore Titch Pat Hutchins Tall Jez Albourgh Where's My Teddy Jez Albrough Who Sank the boat Pamela Allen How much does a ladybird Weigh? Alison Limentani Balancing Act Ellen Stoll Walsh

Waverton Primary School

Learning Together – Achieving Together

Sample Long Term Curriculum Overview

Mathematics					
Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Cardinality & Counting Accurate counting of sets of objects 1-5 NB S1 episodes 9 & 10 (1:1 correspondence, cardinality) Subitising 1-3 NB S1 episodes 1-4 (introducing 1, 2 and 3) Numeral Recognition 1-5 **Composition** Conceptual subitising - noticing numbers within numbers **Comparison** Compare sets 1-5 using vocab of more / fewer / most /fewest **Measures** Height **Pattern** Simple AB patterns (complete, copy, make own and spot/correct errors in patterns)	**Cardinality & Counting** Accurate counting of sets of objects 1-10 and ordering numbers 1-10 Subitising 1-5 NB S1 episodes 6 & 7 (introducing 4 and 5) **Composition** Applied conceptual subitising NB S1 episode 11 (Stampolines) Inverse operations - splitting and recombining sets of objects 1-5 including part whole model NB S1 episode 12 (Whole of me) **Comparison** Compare numbers using vocab of more/less Find 1 more using sets of objects on tens frames and on a number track **Shape/Space** 2D shapes and their properties **Pattern** identifying unit of repeat - AB & ABC patterns	**Cardinality & Counting** Counting backwards 10-1 & ordering numbers 10-1 **Composition** Systematic approach to partitioning sets of objects 1-5 including part whole model NB S1 episode 14 (Holes) Start to learn number bonds 1-5 **Comparison** Find 1 less using sets of objects on tens frame and on a number track **Measures** Length **Shape/Space** Spatial vocabulary (in front, behind, in between, on, in, under, first second, third) **Pattern** More complex patterns - ABB, ABBC generalising pattern and transferring to another format e.g. link pattern of shapes to movements	**Composition** Splitting and recombining sets of objects 6-9 Use part whole model and tens frame NB S2 episodes 1-5 (introducing 6-10) **Comparison** 1 more/1 less using mental numberline (see Pattern plan) NB S2 episodes 6 & 7 (Just add one & ten green bottles) **Measures** Mass **Shape/Space** representing spatial relationships as maps Spatial vocabulary (forwards, backwards, up, down, across) **Pattern** Numerical Patterns - staircase patterns linked to 1 more/1 less in comparison	**Cardinality & Counting** Counting beyond 10 noticing pattern in ones **Composition** Systematic approach to splitting and recombining sets of objects 1-10 use part whole model and tens frame Consolidate bonds to 5, 4, 3, 2, 1 Make generalisations Start to learn some number bonds for 10 NB S2 Episode 13 (Blast Off!) **Measures** Time - sequence of events **Shape/Space** 3D shapes properties of shapes **Patterns** Numerical patterns odds & evens NB S2 episode 11 (Odds & Evens)	**Cardinality & Counting** Counting beyond 20 noticing pattern in tens **Composition** Look at part whole models splitting numbers 1-10 where both parts are the same - learn those not known Link to doubles and halves work in patterns NB S2 episode 9 (Double Trouble) Splitting into more than 2 parts - link to sharing fairly in comparison NB S2 episode 10 (The three threes) **Comparison** Focus on sharing fairly NB S2 episode 8 (Counting Sheep) **Measures** Capacity **Shape/Space** Relationships between shapes **Pattern** Symmetry/reflections Numerical patterns doubles and halves

Waverton Primary School

Learning Together – Achieving Together

Resources from White Rose and Number Blocks will be used where appropriate

Reception - Notes and guidance

Autumn Progression

Number and Place Value	Numbers to 5	→ One, two, three
		→ Four
		→ Five
Addition and Subtraction	Sorting	→ Sorting into groups
Number and Place Value	Comparing groups	→ Comparing quantities of identical objects
		Comparing quantities of non-identical objects
Addition and Subtraction	Change within 5	→ One more
		→ One less
Measurement	Time	→ My day

Series 1 Overview

stories and mathematics

Numbers to 5

Episode	Name	Storyline	Mathematics
1	One	A little block falls out of the sky, meets her numberling and discovers one wonderful world, singing and counting to one.	• Meet *One* • Counting to 1
2	Another One	*One* discovers it's tricky to play tennis when you're the only block in the world. She bumps into a magic mirror and meets *Another One* – and they join forces to make *Two*.	• Meet *Two* • 2 is one more than 1
3	Two	*Two* finds a pair of magic dancing shoes and shows *One* that everything is better with 2, singing and counting things that belong in pairs.	• Counting to 2 • The 'twoness' of 2
4	Three	*Three* arrives with a bang – and a song-and-dance about her favourite number: 1, 2, 3, Everybody Look at Me!	• Meet *Three* • 3 is one more than 2
5	One, Two, Three!	*Three* does magic tricks with apples to show the others who goes first, who's biggest and how to surprise your number friends.	• Counting to 3 • Comparing numbers 1,2 and 3 – 'bigger' and 'smaller' • Ordering numbers 1 to 3 • 3 is made of 2 and 1
6	Four	*Four* is the new block on the block and he can't wait to share how much he loves to be square!	• Meet *Four* • 4 is one more than 3 • Counting to 4 • The structure of 4 as a square number • Recognition of 4 items without counting (subitising)
7	Five	*Five* arrives to get the band together – and gets the party started – with a big high five!	• Meet *Five* • 5 is one more than 4 • Counting to 5 • Line up 1 to 5 in order
8	Three Little Pigs	The Numberblocks present their very own, very numbery version of the classic tale: The Three Little Pigs and the Big Bad Square.	• Counting to 4 • Adding 1s
9	Off We Go!	*Five* and friends set off on a rhyming romp through field and forest but they keep getting mixed up!	• Counting to 5 • Line up 1 to 5 in order • Identify missing numbers within a 1 to 5 line-up
10	How to Count	It's a lovely day for a picnic but one of the flapjacks is missing! Is there a flapjack-snaffler on the loose or has *Three* forgotten what Numberblocks do best?	• The key principles of counting: • **One-to-one correspondence** – match one number name to each item to be counted • **Cardinality** - the last number in the count is the total size of the group • **Stable order**- say the number names in the correct order
11	Stampolines	*Three* opens a stampoline park, where her friends have splatty fun making inky prints of all the shapes they can make.	• Subitising numbers 1 to 5 • Different ways of arranging blocks to 5 • Conservation of number – different arrangement of blocks but the number remains the same
12	The Whole of Me	The Numberblocks show us what they are made of in a song and dance all about the parts that make a whole.	• Composition of numbers 1 to 5 • Introduction to the 'part-part-whole' structure of number • Partitioning a whole number into parts • Conservation of number – a number can be partitioned but the whole (total) remains the same
13	The Terrible Twos	Double trouble as *Four* splits and a pair of tricky twins turn up: The Terrible *Twos*, who decide it's time to tickle their friends to pieces.	• 4 can be partitioned into 2 and 2, and, 1 and 1 and 1 and 1.
14	Holes	*Five* and friends discover a hole that makes their heads fall off!	• The number of a group can be changed by adding to it or taking from it. • Addition and subtraction of 1 • Number bonds to 5
15	Hide and Seek	*Five* is so good at hide and seek, she can find the others without looking up from her book – but how?	• Addition and subtraction of numbers to 5 • Number bonds to 5

Waverton Primary School

Learning Together – Achieving Together

Reception - Notes and guidance

Spring Progression

Addition and Subtraction	Numbers to 5	→ Number bonds to 5
Number and Place Value	Numbers to 10	→ Counting to 6, 7 and 8
		→ Counting to 9 and 10
		→ Comparing groups up to 10
Addition and Subtraction	Addition to 10	→ Combining two groups to find the whole
		→ Number bonds to 10 – ten frame
		→ Number bonds to 10 – part-whole model
Geometry	Shape and space	→ Spatial awareness
		3-D shapes
		2-D shapes

Series 2 Overview

stories and mathematics

Numbers to 10

Episode*	Name	Storyline	Mathematics
1	Six	The Numberblocks make a new friend who likes to roll the dice, and with Six in the mix, everything's a game.	• Meet Six • Counting (1 to 6) • Subitising (dice patterns)
2	Seven	It's a rainy day for a picnic, but when lucky number Seven appears, everything comes up rainbows.	• Meet Seven • 7 is one more than 6 • Counting (1 to 7)
3	Eight	Numberland is rocked by the arrival of superblock Eight, known to his friends and fans as Octoblock.	• Meet Eight • Counting (1 to 8) • 8 is one more than 7 • Subitising (8)
4	Nine	Numberblock Nine arrives in Numberland, finds a friend in Four, sings a song about squares… and sneezes!	• Meet Nine • Counting (1 to 9) • The structure of square numbers (4 and 9) • Partitioning and combining 9
5	Ten	Ten comes to town and tells the team what it's like to be a perfect ten-block, singing *I'm Ten Ones* and *I'm One Ten*.	• Meet Ten • Counting (1 to 10) • 10 ones are equivalent to one 10.
6	Just Add One	One's idea of fun is singing, dancing and making friends by adding one!	• Adding 1 • Counting (1 to 10)
7	Ten Green Bottles	One of the bottles in Ten's collection accidentally falls off the wall and sparks a very numbery hullabaloo.	• Subtracting 1 • Counting (1 to 10) • Counting down 10 to 1
8	Counting Sheep	Six tries to get the cheeky sheep to sleep and discovers that two (or three) heads are better than one.	• Exploring equivalent ways to represent 6 • Partitioning 6 into equal groups • Factors of 6
9	Double Trouble	One explores the Double Dungeon of Doom in search of the golden apples and doubles all the way up to Octoblock.	• Doubling (1, 2, 4, 8) and halving • Partitioning 8 into equal groups
10	The Three Threes	When Nine needs a helping hand, he turns into a talented trio of bouncing blocks, the three Threes.	• Partitioning 9 into 3 equal groups • Partitioning is the inverse of combining
11	Odds and Evens	The Numberblocks play an exciting game of bounceball – it's the Even Tops versus the Odd Blocks.	• Odd and even numbers • Equal groups
12	Fluffies	One finds a friendly furball, two of them tickle Two and soon Numberland is full of fun and fluffies!	• Counting (1 to 8) • Number bonds within 7
13	Blast Off!	Ten promises to take the others on a trip to the moon but blasts off on her own. How will they get there?	• Count back from 10 to 1 • Number bonds that total 10
14	The Two Tree	The Numberblocks find a magic two-tree and play an action-packed game of throwing Twos.	• Subtracting 2 from numbers up to 10 • Counting in 2s
15	Numberblock Castle	One, Two, Three and Four have a castle-exploring adventure, with a little help from the friends they make along the way.	• Adding more than 1 to make 5 to 10

*These episodes were previously 16-30 of Series 1, but were renumbered on 10 September 2018; titles and content remain unchanged

Waverton Primary School

Learning Together – Achieving Together

Reception - Notes and guidance

Summer Progression

Geometry	Exploring patterns	Making simple patterns
		Exploring more complex patterns
Addition and Subtraction	Count on and back	Adding by counting on
		Taking away by counting back
Number and Place Value	Numbers to 20	Counting to 20
Multiplication and Division	Numerical patterns	Doubling
		Halving and sharing
		Odds and evens
Measurement	Measure	Length, height and distance
		Weight
		Capacity

Series 3 Overview

stories and mathematics

More on Numbers to 10

Episode	Name	Storyline	Mathematics
1	Once Upon a Time	Are you sitting comfortably? Then we'll begin a bedtime story all about the first five Numberblocks.	• A review of numbers 1 to 5
2	Blockzilla	Coming now to a screen near you: the monster tale of a colossal creature who really, really likes bigger numbers.	• Comparison of numbers 1 to 5 using the language of 'greater than' and 'less than'
3	The Numberblocks Express	All aboard for a riotous railway ride as the Numberblocks try to stop a runaway train.	• Composition of 5 • Partitioning and combining 5 in different ways
4	Fruit Salad	Welcome to the fabulous fun fruit factory, where *Three*'s super fruit-sorting machines aren't giving her any fruit.	• Composition of numbers to 5 • Exploring the part-part-whole model to partition and combine numbers to 5
5	Zero	When there's nothing there to count and none is the amount, nobody does it better than *Zero*.	• Introducing the concept of zero • Zero is one less than 1 and an absence of something
6	Now We Are Six to Ten	Are you sitting comfortably? Then we'll begin a bedtime story all about Numberblocks *Six* to *Ten*.	• A review of numbers 6 to 10
7	Numberblobs	Sing along to the Numberblobs counting song with the Numberblocks' favourite friends.	• Counting to 10
8	Building Blocks	The Numberblocks rescue a friendly alien who helps them build a tower to the stars.	• Building with blocks and exploring space and pattern
9	Peekabout	The number friends take turns hiding behind each other in a song and dance all about bigger and smaller.	• Comparison of numbers to 10 using the language of 'bigger than', 'smaller than' leading to 'greater than' and 'less than'
10	Hiccups	Every time Numberblock *Nine* hiccups, he falls to pieces – until the others find an unexpected cure.	• Composition of numbers to 10 • Partitioning and combining numbers in different ways
11	What's the Difference?	*Seven* shows the others how to be lucky like him: just ask a number friend to jump on your head! But how do you know which friend?	• Comparison of numbers to 10 • Finding the difference to make 7
12	Numberblock Rally	Ten riders, ten pedal-powered cars, but only one can lift the trophy. Welcome to the Numberblock Rally!	• Subtraction
13	Five and Friends	When *Five* and friends go missing from the five-star ball, *Six* to *Ten* discover they are all *Five*-and-a-friend!	• Numbers 6 to 10 are made from 5 and a 'bit'
14	Octoblock to the Rescue!	The terribly naughty Terrible *Twos* are making custard pies and Octoblock is all tied up: can his friends save the day?	• Pairs of numbers that total 8
15	Ten Again	The number friends all want to do different things today, so rocket *Ten* finds a clever way to do it all.	• Pairs of numbers that total 10
16	Flatland	Squarey, we're not in Numberland anymore! *Four* visits Flatland, where the flat shapes live, and becomes a real square.	• 2D Shape
17	Pattern Palace	*One* and chums carefully cross the precarious pattern puzzle paths over many magic moats to get to the Pattern Palace.	• Pattern
18	The Legend of Big Tum	A big hairy monster with a big hairy tummy who loves puzzles? Find out who is in Big Tum's tum!	• Problem solving and finding the missing number
19	Mirror, Mirror	*One* makes a wish that the magic mirror could make lots of friends at once – and soon it's pandemonium.	• Adding multiples of the same number
20	The Wrong Number	It was a grey day in the big city. *One* was wondering where her next case would come from, when a square silhouette appeared at the door....	• Problem solving – reasoning about number