Reception Maths Overview – (Based on White Rose Maths Shed Maths supported by NCETM Numberblocks)

AUTUMN 1	NUMBER ELEMENT	SSM ELEMENT	
White Rose Focus	**Numbers to 5** **Comparing Groups** (quantities of identical & non-identical objects) **Change within 5** (One more & one less)	**Sorting** (into groups) **Time** (my day)	
Additional Foci		**2D shape** WR Spring (recognition and describing sides) **Money** (1p, 2p, 5p) **Time** (Identifying numbers on a clock)	**Rationale –** Each shape and coin is introduced with the corresponding number so children make links between numbers and their application in the real world. Children also identify where numbers are on an analogue clock to develop familiarity and as a precursor to telling the time in year 1.
Week 1-3	Assessment		TRANSITION & BASELINE
Week 4 S1 Episodes 1 (One)	Introduce 1	Circle 1 on the clock 1p	• Recognise 1 • Identify the quantity 1 (the oneness of 1) • Recognise a 1p coin • Find 1 on the clock • Introduce a circle – with 1 side
Week 5 S1 Episodes 2 (Another One) S1 Episodes 3 (Two)	Introduce 2	2 on the clock 2 step repeating patterns 2p	• Recognise 2 • Identify the quantity 2 (the twoness of 2) • Know that 2 is 1 more than 1 • Know that 1 + 1 is 2 • Know that 2-1 is 1 • Recognise a 2p coin – understand it is equivalent to 2 x 1ps • Find 2 on the clock • Be able to continue 2 step repeating patterns
Week 6 S1 Episodes 4 (Three)	Introduce 3	Triangles 3 on the clock 3 step repeating patterns 3p	• Recognise 3 • Identify the quantity 3 (the threeness of 3) • Know that 3 is 1 more than 2 • Know that 3 is 2 more than 1 • Know that 1 + 2 (or 2+1) is 3 • Know that 3-1 is 2 and 3-2 is 1

			• Find 3 on the clock • Understand number conservation – However you arrange the three objects, there are still 3 (use triangular arrangements and dice). • Introduce different triangles with 3 sides. • Be able to continue 3 step repeating patterns
Week 7 S1 Episodes 5 (One, Two, Three!)	Consolidate to 3	Triangles 3 on the clock	• Count to 3 – forwards and backwards using the 1 to 1, the stable order, the cardinal, the abstraction and the order-irrelevance principles. (see WRM) • Compare numbers 1,2 and 3 – 'bigger' and 'smaller' • Order numbers 1 to 3 • Know 3 is made of 2 and 1 or 1+1+1 • Know that 2 is 1 less than 3, 1 is 1 less than 2 • Count out 3 objects from a larger set. • Use a 5 frame and recognise how many spaces there are when it contains 3 objects. • Recognise which arrangements of objects contain a group of 3. • There isn't a 3p coin – how can we pay 3p?
AUTUMN 2	**NUMBER ELEMENT**	**SSM ELEMENT**	
Week 1 S1 Episode 6 (Four) S1 Episode 8 (Three Little Pigs)	Introduce 4	Quadrilaterals 4 on the clock	• Recognise 4 • Count out 4 objects from a larger group and recognize the structure of 4 as a square number and within a five frame Use different arrangements of 4 to explore number conservation. • Recognise 4 items without counting (subitise) • Count to 4 (forwards and backwards) • Sequence numbers to 4 • Know that 4 is one more than 3 • Partition 4 into 3s, 2s and 1s and use the terms add and takeaway to describe the combinations. • Find 4 on the clock • Introduce a range of quadrilaterals and name the most common
Week 2 S1 Episodes 7 (Five) S1 Episodes 9 (Off We Go!) S1 Episodes 11 (Stampolines)	Introduce 5		• Recognise 5 • Count out 5 objects from a larger group and look at ways of arranging (including using a dice arrangement and a 5 frame). • Subitise to 5 (include instant recognition of number of fingers held up (to 5). Be able to hold up correct number of fingers without counting. • Count forwards and backwards to 5 (encourage children to line up to count)

			• Sequence numbers to 5. Identify missing numbers to 5.
Week 3 S1 Episode 10 (How to Count)	Consolidate to 5	Pentagons 5 on the clock 5p	• Know that 5 is one more than 4 • Partition 5 in various ways using the vocabulary add and takeaway • Find 5 on the clock • Introduce a pentagon • Recognise 5p and investigate its equivalence to 2ps and 1ps • Use informal jottings to record numbers / quantities.
Week 4 S1 Episode 12 (The Whole of Me) S1 Episode 13 (The Terrible Twos)	Composition of numbers to 5 Number bonds to 5		• Explore partitioning a whole number into parts • Recognise that even when partitioned, the total remains the same. • Number bonds to 5
Week 5 S1 Episode 14 (Holes)	Comparing quantities of identical then non identical objects		• Recognise that the number of a group can be changed by adding to it or taking from it. • Compare quantities and use the terms more, less, fewer
Week 6 S1 Episode 15 (Hide & Seek)	1 more / 1 less Introduce taking away		• Say 1 more or 1 less to 5 without counting. • Relate taking 1 away to counting backwards
Week 7		Sorting into groups	• Sort objects based on colour / size / shape • Investigate sorting the same objects in different ways • Play Guess my Rule with objects you have sorted
Week 8		My day	

SPRING 1	**NUMBER ELEMENT**	**SSM ELEMENT**	
White Rose Focus	**Numbers bonds to 5** **Numbers to 10** (counting & comparing groups) **Addition to 10** (combining 2 groups, number bonds using 10-frame and part-whole model)	**Spatial Awareness** **3D shape** **2D shape** (started in Autumn)	

Additional Foci	**Numerical Patterns** WR Summer (Odds & Evens) (Doubling & Halving)		When children are learning to subitise (recognise quantity without counting), it makes sense to talk about ways in which each number can be arranged and patterns in these arrangements. Using Numicom to 10 highlights the difference between odd and even numbers and so it makes sense to introduce the vocabulary. Recognising 6 as 2, 3s and 8 as 2, 4s etc helps children to subitise larger numbers and so the vocabulary double and half is introduced here.
Week 1 S3 Episode 5 (Zero) S3 Episode 1 (Once upon a Time) S3 Episode 2 (Blockzilla)	Introducing 0 Number bonds to 5	• Consolidate recognition of 2D shapes with up to 5 sides (Circle, Semicircle, Triangle, Square, Rectangle, Pentagon) • 3D shapes • Consolidate sorting from Term 1	• Introducing the concept of zero • Zero is 1 less than 1 and an absence of something • A review of numbers 1 to 5 (including totaling values and coins) • Comparison of numbers to 5 using the language of greater than and less than
Week 2 S3 Episode 3 (The Numberblocks Express) S3 Episode 4 (Fruit Salad) S4 Episode 2 (Pattern Palace)	Number bonds to 5	• Pattern • Time up to 5 o'clock	• Composition of 5 • Partitioning and combining 5 in different ways • Composition of numbers to 5 • Exploring the part, part-whole model to partition and combine numbers to 5 • Pattern
Week 3 S2 Episode 1 (Six) S2 Episode 8 (Counting Sheep) S3 Episode 18 (The Legend of Big Tum)	Counting to 6 The Six-ness of 6	• Weight (use balances and Numicom for number bond equivalence) • Introduce 6 o'clock • Introduce hexagons	• Meet Six • Counting (1 to 6) • Subitising (dice patterns) • Exploring equivalent ways to represent 6 • Partitioning 6 into equal groups • Factors of 6
Week 4 S2 Episode 2 (Seven) S2 Episode 12 (Fluffies)	Counting to 7 The Seven-ness of 7	• Space & Pattern • Introduce 7 o'clock • Introduce heptagons	• Meet Seven • 7 is one more than 6 • Counting (1 to 7) • Counting 1 to 8

			• Number bonds within 7
Week 5 S2 Episode 3 (Eight) S2 Episode 9 (Double Trouble) S3 Episode 14 (Octoblock to the Rescue)	Counting to 8 The Eight-ness of 8	• Capacity – relate to doubling and partitioning • Introduce 8 o'clock • Introduce octagons	• Meet Eight • • Counting (1 to 8) • 8 is one more than 7 • Subitising (8) • Doubling (1, 2, 4, 8) and halving • Partitioning 8 into equal groups • Pairs of numbers that total 8
Week 6 S2 Episode 4 (Nine) S2 Episode 10 (The Three Threes) S4 Episode 5 (The Wrong Number?) S4 Episode 1 (Flatland)	Counting to 9 The Nine-ness of 9	• Length and measure – link to number size, use rods to be measured and compared with Numberblocks and other measures • Introduce 9 o'clock • Introduce nonagons	• Meet Nine • Counting (1 to 9) • The structure of square numbers (4 and 9) • Partitioning and combining 9 • Partitioning 9 into 3 equal groups • Partitioning is the inverse of combining • 2D shapes and their properties up to octagon
SPRING 2	**NUMBER ELEMENT**	**SSM ELEMENT**	
Week 1 S2 Episodes 5 (Ten) S2 Episodes 6 (Just Add 1) S3 Episode 7 (Numberblobs)	Counting to 10 The Ten-ness of 10		• Meet Ten • Counting (1 to 10) • 10 ones are equivalent to one 10. • Adding 1 • Counting 1 to 10 • Counting to 10
Week 2 S3 Episode 6 (Now we are 6 to 10) S2 Episodes 15 (Ten Green Bottles) S2 Episodes 7 (Blast Off)		• Introduce 10 o'clock • Introduce decagons • Introduce 10p coin and ways of making 10p with other coins	• A review of numbers 6 to 10 • Subtracting 1 • Counting (1 to 10) • Counting down 10 to 1 • Count back from 10 to 1 • Number bonds that total 10
Week 3			• Subtracting 2 from numbers up to 10

S2 Episodes 13 (The Two Tree) S3 Episode 12 (Numberblock Rally) S2 Episodes 11 (Odd & Evens)			• Counting in 2s • Subtraction • Odd and even numbers • Equal groups
Week 4 S2 Episode 14 (Numberblock Castle) S3 Episode 15 (Ten Again) S3 Episode 8 (Building Blocks) S4 Episode 4 (Mirror, Mirror)	Combining two groups to find the whole Number bonds to 10 – ten frame Number bonds to 10 – part whole model		• Adding more than 1 to make 5 to 10 • Pairs of numbers that total 10 • Building with blocks and exploring space and pattern (to 10) • Doubling, tripling (and prime numbers!)
Week 5 S3 Episode 9 (Peekaboo!) S3 Episode 10 (Hiccups)	Comparing groups up to 10	Time – related to things we do in the day	• Comparison of numbers to 10 using the language of 'bigger than' 'smaller than' leading to 'greater than' and 'less than' • Comparison of numbers to 10 (greater than, less than and equals sign) • Partitioning and combining numbers in different ways
Week 6 S3 Episode 11 (What's the Difference) S3 Episode 13 (Five and Friends)		Time – yesterday, tomorrow, before, after	• Comparison of numbers to 10 • Finding the difference to make 7 • Numbers 6 to 10 are made from 5 and a bit

SUMMER - Teens numbers			
White Rose Focus	**Numbers to 20** (counting) **Count on and back** (Adding/ taking away by counting on/ back)	**Exploring Pattern** (making simple patterns, exploring more complex patterns) **Measure** (Length, height & distance, weight, capacity)	

	Numerical Patterns (Doubling, Halving, Sharing, Odds & Evens)		
Week 1 S4 Episode 6 (Eleven)	Counting to 11 The eleven-ness of 11 Add to a number by counting on and take away from a number by counting back	• Introduce 11 o'clock	• Introduce the concept of 1 ten – make practically in different ways • Introduce 11 as 1 ten and 1 one – make practically and relate each digit to its place value. • Count forwards and backwards from different numbers • Use 2 dice and add on from the first dice
Week 2 S4 Episode 7 (Twelve) S4 Episode 10 (Blockstar) S4 Episode 8 (The Way of the Rectangle) S4 Episode 9 (Ride the Rays)	Counting to 12 The twelve-ness of 12 Doubling and halving Sharing	• Introduce 12 o'clock • Rectangles	• Introduce 12 as 1 ten and 2 ones. • Look at how each digit corresponds to its place value. • Introduce arrays as columns and rows Look at 12 as being 3 lots of 4 or 4 lots of 3 or 6 lots of 2 or 2 lots of 6 • Can children find any other rectangular numbers? • Is 4 a rectangular number – no – but it is a quadrilateral • Look at other ways in which 12 can be segmented and use the vocabulary of 'add' and 'plus' to show how they total 12 when combined. • Look at what we double to get 12. Halve 12. Can we halve 11? • Can you share 12 things between 2,3,4 or 5 people? How many do they each get?
Week 3 S4 Episode 11 (Thirteen) S4 Episode 12 (Fourteen) (could introduce Ten's Place in prep for next week)	Counting to 13 The thirteen-ness of 13 Counting to 14 The fourteen-ness of 14 Doubling and halving Sharing		• Introduce 13 as 1 ten and 3 ones. • Explain that is has an irregular name (thirteen not threeteen) • Introduce 14 as 1 ten and 4 ones. • Explain that it has a regular name • Look at what we double to get 14. Halve 14. Can we halve 13? • Can you share 13 or 14 things between 2,3,4 or 5 people? How many do they each get?
Week 4 S4 Episode 13 (Fifteen) S4 Episode 14 (Tween Scenes) S4 Episode 15 (Step Squads)	Counting to 15 The fifteen-ness of 15		• Introduce 15 as 1 ten and 5 ones. • Explain that is has an irregular name (fifteen not fiveteen) • Recap the equals sign (balancing bridge)

S5 Episode 1 (Fifteen Minutes of Fame) S5 Episode 2 (On your Head) S5 Episode 3 (Ten's Place) S5 Episode 4 (Balancing Bridge) S5 Episode 5 (Sixteen) S5 Episode 6 (Square Club)	Counting to 16 The sixteen-ness of 16 Doubling and halving Sharing		• Introduce 16 as 1 ten and 6 ones. • Explain that it has a regular name • Introduce 16 as a square number. Recap other square numbers (9, 4) • Look at what we double to get 16. Halve 16. Can we halve 15? • Can you share 15 or 16 things between 2,3,4 or 5 people? How many do they each get?
Week 5 S5 Episode 7 (Seventeen) S5 Episode 8 (Eighteen) S5 Episode 10 (Nineteen) S5 Episode 9 (Loop the Loop – up to 18)	Counting to 19 The numberness of 17, 18, 19 Doubling and halving Odd and even Sharing		• Introduce 17, 18, 19 as 1 ten and x ones. • Explain that they all have regular names • Look at what we double to get 18. Can we double numbers to get 17 and 19? Can we halve 17 and 19? Why? Relate to odd and even. • Can you share 17, 18, or 19 things between 2,3,4 or 5 people? How many do they each get?
SUMMER 2	**NUMBER ELEMENT**	**SSM ELEMENT**	
Week 1 S5 Episode 11 (Twenty) S5 Episode 14 (I can count to 20) S5 Episode 12 (Tall Stories) S5 Episode 13 (Flights of Fancy) S5 Episode 15 (Heist)	Counting to 20 To 20-ness of 20 Numbers to 20 section of WR Maths	Pattern (WR Math) Measure (WR Maths)	• Introduce twenty as 2 tens and no extra ones
S6			1. Sign of the Times 2. Fun Times Fair 3. The Lair of Shares 4. Terrible Twosday 5. Divide and Drive 6. Twenty-One and On 7. We're Going On A Square Hunt

			8. Thirty's Big Top 9. Land of the Giants 10. Fifty 11. Sixty's High Score 12. The Big One 13. One Hundred 14. One Thousand And One More To Explore