

Mathe Curriculum overview

## SY 2022-23

At Deanshanger Primary School we follow the White Rose Curriculum which links to the National Curriculum. This document shows how maths progresses through the different maths areas across the year groups. The Reception year's curriculum is in a separate table at the beginning of this overview document.

In each of the major areas (Number, Measurement, Geometry and Statistics), the curriculum has been broken down into key areas. For each of these areas, you can then see which National Curriculum objectives are covered along with the term and block number in which that objective is first met on the White Rose Maths schemes.

At Deanshanger Primary School we also promote the use of the following apps to be used in school and at home:

- Numbots for Reception, Year One and Year Two- supporting the learning of Number, Addition and Subtraction.
- TT Rockstars from Years Two to Six- supporting the learning of Multiplication and Division.

## Reception Year Mathematics at Deanshanger School

	EYFS Statutory Educationa	l Programme: Developing a str	rong grounding in number is	s essential so that all childre	n develop the necessary bui	lding blocks to excel				
Mathematics	mathematically. Children sh	ould be able to count confider	rtly, develop a deep underst	anding of the numbers to 10	, the relationships between t	hem and the patterns within				
(Number and	those numbers.	rose numbers.								
Numerical Pattern)	By providing frequent and organising counting – child curriculum includes rich op important that children dev about what they notice and	, providing frequent and varied opportunities to build and apply this understanding - such as using manipulatives, including small pebbles and tens frames for zanising counting - children will develop a secure base of knowledge and vocabulary from which mastery of mathematics is built. In addition, it is important that the rriculum includes rich opportunities for children to develop their spatial reasoning skills across all areas of mathematics including shape, space, and measures. It is portant that children develop positive attitudes and interests in mathematics, look for patterns and relationships, spot connections, 'have a go', talk to adults and peers wut what they notice and not be afraid to make mistakes.								
Learning	<u>Getting to know your</u>	<u>It's me 1,2,3: WRM</u>	Alive in 5: WRM	Building 9 and 10: WRM	To 20 and beyond: WRM	Find my pattern-				
Opportunities	WRM Providing opportunities for children to count different objects, actions- during songs, sounds during phonics. Number recognition- what numbers can you see? Start with numbers 1-5. Start with numbers 1-5. Maths display- organise the numbers 1-5 in order. What comes first? Relating maths to other	<ul> <li>Looking at making the number 1,2 and 3 in different ways.</li> <li>Showing how to make the numbers 1,2 and 3 using number frames.</li> <li>Using different objects to represent the numbers.</li> <li>Counting with different objects.</li> <li>It's me 1,2,3: WRM</li> <li>Recap making groups of 1,2</li> </ul>	<ul> <li>*Counting 1-5 ext 1-10.</li> <li>*Using 5 frames/10 frames.</li> <li>*Looking at how many altogether.</li> <li>*Taking away-one less.</li> <li>*Composition of 5.</li> <li>*Writing numbers to 5-showing one less using symbols.</li> <li>*Rolling number song- 2, 5 10's.</li> </ul>	<ul> <li>Making 9 and 10.</li> <li>Representing 9 and 10 in different ways.</li> <li>Using 10 frames and representing how many.</li> <li>Matching numerals and amounts.</li> <li>Ordering numbers to 10-some children may be able to go beyond 10.</li> <li>Rolling number song- 2, 5, 10's.</li> </ul>	<ul> <li>Number patterns to 20.</li> <li>Making numbers to 20- using ten frames.</li> <li>Matching objects and numerals.</li> <li>Counting-how many.</li> <li>Beyond 20- what comes next- using ten frames- how many do I need?</li> <li>Estimating different amounts.</li> <li>Writige different amounts.</li> </ul>	Doubling: WRM •Doubling numbers. •Looking at pairs. •Use of dice for doubling. •Counting how many. •Making a matching pair: •Domino game. •Addition sentences- 1+1, 2+2 etc. Find my pattern- Sharing: WRM				
	areas Just like me: WRM	and 3.	<u>Alive in 5: WRM</u>	Building 9 and 10: WRM	To 20 and beyond: WRM	•Sharing different amounts.				

*Sorting objects into	*Match objects to the	*Composition of numbers	•Counting back from 10-	*Missing numbers.	•Looking at half.
different groups.	numeral.	2-5.	some children may count back from 20.	*Number sequence.	*Equal amounts between
*Colour, size and shape sorting.	*Looking at one more/one less.	*Looking at how many altogether- basic addition	•Making 10 in different	•Ordering numbers to 20-	different groups. •Resiting, and writing.
•Opportunities for counting different items- buttons,	*Sorting 2D shapes into different groups.	(possibility of introducing signs + =).	ways- use of 10 frames/20 frames.	comes next?	numbers to 10.
number beads, numicon, cubes.	*Create a 2D shape	•Using a five frame- how many on the bus? How	*Comparing numbers within 10- some children	•Most and least. •Number patterns.	•Making different groups. •Sea creatures-
*Comparing different	picture/collage- link to artist Piet Mondrian who uses	many waiting to get on- introducing a mathe story.	may compare to 20.	•Making numbers to 10 and	corresponding shapes
groups with afferent amounts in- children to choose different objects for	art.	*Different objects to support with additional number line.	less when comparing	20. •Writing different numbers	*Seashell repeating patterns. Find My Pattern odd and
comparing. Who has more? Exploring this in	*Shape walks around the school- hunting for 2D	5 frame, 10 frame, introduction of signs.	•Counting backwards-	to show different amounts. •Motching_ different	even numbers - WRM
groups with a partner.	shapes. Light and dark: WRM	Alive in 5: WRM	different number songs to help- revisiting 10 green	shapes.	everybody have a friend concept)
•Printing using fruits and vegetables- <u>.</u>	•Making 4 and 5.	*Comparing mass- discussing heavier/lighter.	bottles. •Using weighing scales-	First, then, now: WRM	•Even and odd extension-
•Creating repeating patterns using different	•Using 5 frames and looking at how to make 4 and 5 in	•Use of weighing scales.	digital ones.	*Counting back	numbers. •One Odd Days story link
objects.	different ways.	*Capacity- exploring half full, full, empty, nearly full.	*Exploring floating and sinking- link to the story.	*Adding more.	•Making our own odd day.
-Beads and threads, counting bears, pegs and	*Ladybird playdough mats- making numbers 1-5 in	•Measuring capacity- how	Shape and pattern 3D and 2D shapes: WRM	*Simple addition sentences.	•How many cubes. Writing amounts.
•Hand printing a repeating	ayjerent ways. •Making four and five in	many cups of water can I fit in here?	•Using 3D and 2D shapes	amounts.	•Barrier Game.
pattern.	different ways.	<u>Growing 6,7,8- WRM.</u> *Composition of numbers.,	•Counting how many shapes used-linking to	•Number bonds to 5 and possibly 10 depending on children's abilities.	•Making equal groups- use plates and bears.

	*Adding one more and taking	*Looking at the numbers	numbers to 10 and	First, then now: WRM	*Pattern spotting- odd and
	one away.	6,7,8.	possibly beyond,	•Subtracting different	eveni
	*Opportunities to write	*Making the numbers	*Recap naming 2D and 3D	amounts.	Recapping number bonds to
	numbers showing how to	6,7,8- how many ways can	shapes and their	*\//niting.como.cimplo	5/10.
	make numbers 1-5.	we make these numbers?	properties.	subtraction sentences.	Or the Move- WRM
	*Sorting 2D shapes into	*Sorting the numbers	Assessment- covering	*C . I I I I	
	different groups.	6,7,8.	aspects from Autumn and	"Saying how many are left	Problem solving- book links
	*Matching numerals to	Growing 6.7.8: WRM	Spring I: WRM	after taking some away.	(ainosaurs and animais).
	objects-on the snowman.	*Matching, the numbers	*Exploring composition of	*Counting how many are	•How many-looking at the
	*Matching, each, amount, to	678	numbers to 10- making	ugu.	
	the numeral	0,7,0.	numbers in different ways-	<ul> <li>Making repeating</li> </ul>	uga.
		*Combing numbers-	using ten frames.	patterns- taking one away.	<ul> <li>Making boats- exploring</li> </ul>
	*Making different groups-	addition sentences, number	•Number bonds to 5	First, then, now WRM	floating and sinking.
	looking at how many in each	sentences, using 10	(composition link).		*Making bridges- how do
	group-some simple additions.	rames.		*Making different shapes	we make them strong- prior
	*Positional language walk-	*Writing number sentences	•Writing numbers to 10,	using circles.	link Isambard Kingdom
	can we go over, under,	to show combining two	possibly w 20.	*Making different shapes	Brunel.
	behind, next to, through?	numbers.	Spring consolidation:	using triangles.	•One more one less teddy's
		*Part whole models- how	<u>WRM</u>	*Making different shapes	picnic.
		many altogether?	•Map work- Looking at	using rectangles.	•E
		Making pairs: WRM	ways Little Red Riding	•	Exploring the different
		Manuel Paul 3. WINNI	Hood could cross the forest	"Looking at different shapes 2D and 3D shappes	shapes within other shapes
		*Looking at making pairs.	safely.	zo unu so snupes.	
		*Counting in 2's.	*Recognising numbers from	*Counting the different	<u>Or the move: WRM</u>
		0	1-10 and 1-20.	shapes.	*Cuisenaire rods.
		*Combing two groups.	•Matahing number	*Making different patterns.	
			riviaiching numbers and	0 00 1	•Looking at place value.

	*Making more than 8- how	*Recapping repeating	*Patterns- Repeating
	many pairs can we make?	patterns.	patterns.
	al I. II	C . I.I.I.	*D    ,  ,
	*Looking at how many	Spring consolidation:	*Relationships between
	altogether.	<u>VVRM</u>	numbers.
	*Making number sentences.	*Exploring number	*Counting, how many-
	1 11 11 . 11	composition- 1-10- making	Matching the correct number
	<u>L'engin and reight-</u>	numbers in different ways.	of animals/creatures to each
	<u>time/days of the week:</u>		family group.
	<u>WRM</u>	*Number bonds to 5	
	*Comparing length- look at	(composition link).	*Shape patterns.
	whole class heights- who	*One more and one less-	<u>Or the move: WRM</u>
	is taller? How do you	using addition and	*C T I ·
	know? Who is the tallest?	subtraction simple	"Spatial reasoning.
	*T I I . 1.00 I .I	sentences.	*Completing an obstacle
	*Introducing different units		course.
	of measure.	*Some capacity links-	
		story book link.	•Number bonds to 5 and
		To 20 and beyond WRM	10- using bowls and teddies.
			(part whole models).
		*Rolling number song- 2,	<b>.</b>
		5, 10's.	*Using shapes to develop
			spatial reasoning.
		*Weighing the ingredients	•Making our own maps-
		using the digital scales.	aetting to school
		*Number patterns to 20	88
			Consolidation: WRM
		<ul> <li>Matching numbers and</li> </ul>	*D I I I I I I I I I I I I I I I I I I I
		numerals.	-Recap number bonds to IU.
			*One more and one less.

				*Using ten frames- counting how many. *Estimating- how many.		•Writing numbers and matching correct number of objects. •Shapes (recognition and
						shape pictures). •Repeating patterns. •Addition. •Subtraction.
White Rose Maths	<ul> <li>Number and place value- numbers to 5.</li> <li>Addition and subtraction- sorting.</li> <li>Number and place value- comparing groups.</li> <li>Addition and subtraction- change within 5.</li> <li>Measurement- time.</li> <li>WHITE ROSE &amp; NUMBER BLOCKS</li> <li>Getting to know you.</li> </ul>	<ul> <li>Number and place value- numbers to 5.</li> <li>Addition and subtraction- sorting.</li> <li>Number and place value- comparing groups.</li> <li>Addition and subtraction- change within 5.</li> <li>Measurement- time.</li> <li>WHITE ROSE &amp; NUMBER BLOCKS</li> <li>It's ME 1,2,31</li> </ul>	<ul> <li>Addition and subtraction- numbers to 5. Number and place value- numbers to 10. Addition and subtraction- addition to 10.</li> <li>Geometry- shape and space.</li> <li>WHITE ROSE &amp; NUMBER BLOCKS</li> <li>Alive in 5!</li> <li>Growing 6,7,8.</li> <li>Building 9 and 10 Numbers</li> <li>5, 6, 7, 8,9 Money Time</li> </ul>	<ul> <li>Addition and subtraction- numbers to 5. Number and place value- numbers to 10. Addition and subtraction- addition to 10.</li> <li>Geometry- shape and space.</li> <li>WHITE ROSE &amp; NUMBER BLOCKS</li> <li>Building 9 and 10.</li> <li>Consolidation Numbers.</li> <li>7, 8, 9, 10 Halving</li> <li>Doubling Sharing</li> <li>subiticing.</li> </ul>	*Geometry- exploring patterns. *Addition and subtraction- change. *Number and place value- numbers to 20. *Multiplication and division- numerical patterns. *Measurement- measure. WHITE ROSE & NUMBER BLOCKS To 20 and beyond. First then now.	<ul> <li>Geometry- exploring patterns. Addition and subtraction- change.</li> <li>Number and place value- numbers to 20.</li> <li>Multiplication and division- numerical patterns.</li> <li>Measurement-measure.</li> <li>WHITE ROSE &amp; NUMBER BLOCKS</li> <li>Find my pattern.</li> <li>On the move.</li> <li>Consolidation.</li> </ul>
	Just like mel	Light and Dark. Consolidation Numbers.	Shape Early doubling subitising.		Numbers 10, 11, 12, 13, 14, 15 Money, time, shape	Numbers 16, 17, 18, 19, 20 Money, time, shape Halving, doubling, sharing subitising.

	Matching. Sorting &	4, 5, ,6,7,8 Money Time			Halving, doubling, sharing	
	Comparing Numbers I, 2,	Shape subitising Early			subitising.	
	3,4,5 subitising Money	doubling.				
	Time Shape.					
Development	<u>3-4 Years:</u>	3-4 Years:	*Count objects, actions, and	*Count objects, actions,	*Count objects, actions, and	•Count objects, actions, and
Matters	*Talk about and identify	•Solve real world	sounds.	and sounds.	sounds.	sounds.
	the patterns around them.	mathematical problems with	*Link the number symbol	*Link the number symbol	*Subitise	•Subitise
(Possible age-	For example: stripes on	numbers up to 5.	(numeral) with its cardinal	(numeral) with its cardinal	•C	•C+
related statements)	clothes, designs on rugs	*Salaat ah an oo annoonsi ataluu	number value.	number value.	"Couni beyona ien.	"Couni beyona len.
[ ·····,	and wallpaper.	lat surfaces for building a	* Inderstand the 'one more.	*Company numbers	*Compare numbers.	*Compare numbers.
	* lse informal language like	triangular prism for a roof	than/one less than?	compare numbers.	•	•1
	'nointu' 'spottu' 'blobs' etc	etc	relationship between	*Explore the composition	"Undersiand the one more	"Undersiding the one more
	Extend and create ABAB		consecutive numbers	of numbers to 10.	narvone less man	
	patterns - stick leaf stick	*Combine shapes to make		*Select notate and	consecutive numbers	sonsosutius numbers
	leaf.	new ones – an arch, a bigger	*Explore the composition of	manipulate shapes to	consecutive numbers.	consecutive humbers:
		triangle, etc.	numbers to 10.	develop spatial reasoning	*Explore the composition of	*Explore the composition of
	*Notice and correct an	*Talk about and explore 2D	*Compare lepath, weight	skille	numbers to 10.	numbers to 10.
	error in a repeating	and 3D shapes (for example)	and capacity		*Automotically posall	*Automotically pocall
	pattern.	circles, rectangles. triangles.	<u>-</u> <u>9</u> .	*Compose and decompose	number bords for numbers	number bonde for numbers
	*Begin to describe a	and cuboide) using informal	*Subitise.	shapes so that children	0-5 and some to 10	0-5 and some to 10
	sequence of events, real	and mathematical language:	*Compare numbers.	recognise a shape can		

orfic	ictional, using words	'sides', 'corners'; 'straight',	*Compare length, weight,	have other shapes within	*Select, rotate, and	*Select, rotate, and
such	h as 'first', 'then'	'flat', 'round'.	and capacity.	it, just as numbers can.	manipulate shapes to	manipulate shapes to
•Mal	ake comparisons	*Make comparisons between		•Understand the 'one more	develop spatial reasoning skills.	develop spatial reasoning skills.
betw	ween objects relating	objects relating to size, length,		than/one less than		
to siz	ize, length, weight, and	weight, and capacity.		relationship between	*Compose and decompose	*Compose and decompose
capa	acity.	Recention		consecutive numbers.	shapes so that children	shapes so that children
Rece	eption:			*Subitise.	recognise a shape can	recognise a shape can have
		*Count objects, actions, and			nave oirer snapes wiinin ii,	oiner snapes wiinin ii, jusi
*Cou	runt objects, actions, and	sounds.			just as numbers can.	as numbers can.
soun	nds.	*Subitise.			*Continue, copy, and create	*Continue, copy, and create
*Con	mpare numbers.	*Explore the composition of			repeating patterns.	repeating patterns.
*Cou	runt beyond ten.	numbers to 10.			ELG: Number.	ELG: Number.
*E×p	plore the composition of	<ul> <li>Link the number symbol</li> </ul>			ELG: Numerical Patterns.	ELG: Numerical Patterns.
num	nbers to 10.	(rumeral) with its cardinal				
*Con	ntinue, copy, and create	number value.				
reper	eating patterns.	*Select, rotate, and				
*Con and	ompare length, weight, I capacity.	manipulate shapes to develop spatial reasoning skills.				
*6		* Link the number symbol				
auc*	ibilise.	(numeral) with its cardinal				
*Sele	lect, rotate, and	number value				
man deve skills	nipulate shapes to velop spatial reasoning ls	•Compose and decompose shapes so that children recognise a shape can have other shapes within it, just as numbers can.				

*Compare length, weight, and		
capacity.		

Early Years Scheme- White Rose:

Ear	ly years		FILTER	
	Week 1 Week 2 Week 3	Week 4 Week 5 Week 6	Week 7 Week 8 Week 9	Week 10 Week 11 Week 12
Autumn term	Getting to know you (Take this time to play and get to know the children!) Contains overviews and frequently asked questions	Just like me! Match and sort Compare amounts Compare size, mass & capacity Exploring pattern	<b>It's me 1, 2, 3!</b> Representing 1, 2 & 3 Comparing 1, 2 & 3 Composition of 1, 2 & 3 Circles and triangles Positional language	<b>Light &amp; dark</b> Representing numbers to 5 One more or less Shapes with 4 sides Time
	VIEW	VIEW	VIEW	VIEW
Spring term	Alive in 5! Introducing zero Comparing numbers to 5 Composition of 4 & 5 Compare mass (2) Compare capacity (2)	<b>Growing 6, 7, 8</b> 6, 7 & 8 Combining two amounts Making pairs Length & height Time (2)	Building 9 & 10 Counting to 9 & 10 Comparing numbers to 10 Bonds to 10 3-D shapes Spatial awareness Patterns	Consolidation
ummer term	To 20 and beyond Build numbers beyond 10 Count patterns beyond 10 Spatial reasoning 1 Match, rotate, manipulate	<b>First, then, now</b> Adding more Taking away Spatial reasoning 2 Compose and decompose	<b>Find my pattern</b> Doubling Sharing & grouping Even & odd Spatial reasoning 3 Visualise and build	<b>On the move</b> Deepening understanding Patterns & relationships Spatial mapping (4) Mapping
S	VIEW	VIEW	VIEW	VIEW

Years One to Six Mathematic	s at Deanshanger Primary School

	Year One	Year Two	Year Three	Year Four	Year Five	Year Six
Place Value	Count to and across 100,	Count in steps of 2,3, and	Count from 0 in multiples	Count in multiples of	Count forwards or	
	forwards and backwards,	5 from 0, and in tens from	of 4,,8,50, and 100; find 10	6,7,9,25 and 1000.	backwarde in steps of	
Counting	beginning with 0 or 1, or	any number forward and	or 100 more or less than a		powers of 10 for any given	
	from any given number.	backward.	given number.	Count backwards through	number up to 1,000,000.	
				zero to include negative		
	Count numbers to 100 in	Autumn I	Autumn I	rumbers.	Count forwards and	
	numerals; count in				backwards with positive	
	multiples of twos, fives and			Autumn I	and regative whole	
	tens.				numbers, including through	
					zero.	
	Autumn I					
	Spring, I				Autumn I	
	Spring 3					
	Summer 4					
Place Value:	Identify and represent	Read and write numbers to	Identify, represent and	Identify, represent and	Read, write (order and	Read, write (order and
Dennert	numbers using objects and	at least 100 in numerals	estimate numbers using	estimate numbers using	compare) numbers to at	compare) numbers up to
Represeni	pictorial representations.	and in words.	different representations.	different representations.	least 1,000,000 and	10,000,000 and determine
					determine the value of each	the value of each digit.
	Read and write numbers	Identify, represent and	Read and write numbers up	Read Roman numerals to	digit.	
	from 100 in numerals.	estimate numbers using	to 1000 in numerals and in	100 (I to C) and know that		Autumn I
		different representations,	worde.	over time, the numeral	Read Roman numerals to	
	Read and write numbers	including the number line.		system changer to include	1000 (M) and recognise	
	from I to 20 in numerals		Autumr I	the concept of zero and	years written in Roman	
	and words.	Autumn I		place value.	numerals.	
	Autumn I			Autumn I	Autumn I	
	Spring/l					
	Spring 3					
	Summer 4					

Place Value: Use PV and Compare	Given a number, identify one more and one less. Autumn I Spring I Spring 3 Summer 4	Recognise the place value of each digit in a two-digit number (tens, ones). Compare and order numbers from 0 up to 100; use <, > and = signs. Autumr 1	Recognise the place value of each digit in a three- digit number (hundreds, tens, ones). Compare and order numbers up to 1000. <b>Autumn 1</b>	Find 1000 more or less than a given number. Recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones). Order and compare numbers beyond 1000. Autumn 1	(Read, write), order and compare numbers to at least 1,000,000 and determine the value of each digit. Autumn 1	(Read, write), order and compare numbers to at least 10,000,000 and determine the value of each digit. Autumn 1
Place Value: Problems and Rounding		Use place value and number facts to solve problems. Autumn I	Solve number problems and practical problems involving these ideas. Autumn I	Round any number to the nearest 10, 100 or 1000. Solve number and practical problems that involve all of the above and with increasingly large positive numbers. Autumn 1	Interpret negative numbers in context. Round any number up to 1,000,000 to the nearest 10, 100, 1000, 10,000, and 100,000. Solve number problems and practical problems that involve all of the above. Autumn I	Round any whole number to a required degree of accuracy. Use negative numbers in context, and calculate intervals across zero. Solve number and practical problems that involve all of the above. Autumn I
Addition and Subtraction: Recall, Represent, Use	Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equal (=) signs.	Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100.	Estimate the answer to a calculation and use the inverse operations to check answers. Autumn 2	Estimate and use inverse operations to check answers to a calculation. Autumn 2	Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy.	

	Represent and use number	Show that addition of two			Autumr 2	
	bonds and related	numbers can be done in				
	subtraction facts within 20.	any order (commutative)				
	, , , , , , , , , , , , , , , , , , ,	and subtraction of one				
	Autumn 2	number from another				
	Spring 2	cannot.				
		Recognise and use the				
		inverse relationship				
		between addition and				
		subtraction and use this to				
		check calculations and				
		solve missing number				
		problems.				
		Autumn 2				
Addition &	Add and subtract one-digit	Add and subtract numbers	Add and subtract numbers	Add and subtract numbers	Add and subtract whole	Perform mental
Subtant:	and two-digit numbers to	using concrete objects,	mentally, including:	with up to 4 digits using	numbers with more than 4	calculations, including with
Subiraciioni	20, including zero.	pictorial representations,	a three-digit number and	the formal written methods	digits, including using	mixed operations and large
Calculations		and mentally, including:	ones.	of columnar addition and	formal written methods	numbers.
	Autumn 2	a two-digit number and	a three-digit number and	subtraction where	(columnar addition and	
	Spring 2	ones.	tens.	appropriate.	subtraction).	Use their knowledge of the
		a two-digit number and	a three-digit number and			order of operations to carry
		tens.	hundreds.	Autumn 2	Add and subtract numbers	out calculations involving
		two two-digit numbers.			mentally with increasingly	the four operations.
		adding three one-digit	Add and subtract numbers		large numbers.	
		numbers.	with up to three digits,			Autumr 2
			using formal written		Autumn 2	
		Autumn 2	methods of columnar			
		-	addition and subtraction.			
			Autumr 2			

Addition & Subtraction: Solve Problems	Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7= 9 Autumr 2 Spring 2	Solve problems with addition and subtraction, using concrete objects and pictorial representations, including those involving numbers, quantities and measures. Apply their increasing knowledge of mental and written methods. Autumn 2	Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction. Autumn 2	Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why. Autumn 2	Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why. Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign.	Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why. Autumn 2
Multiplication & Division: Recall, Represent, Use		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. Spring 2	Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables. Autumn 3 Spring 1	Recall multiplication and division facts for multiplication tables up to 12x12. Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers. Recognise and use factor pairs and commutativity in mental calculations.	Identify multiples and factors, including finding, all factor pairs of a number, and common factors of factors of two numbers. Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers. Establish whether a number up to 100 is prime and recall prime numbers up to 19.	Identify common factors, common multiples and prime numbers. Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy. Autumn 2

				Autumr 4 Spring I	Recognise and use square numbers and cube numbers, and the notation for squared and cubed. Autumn 3 Spring 1	
Multiplication & Division: Calculations	C st w tc th di si	Calculate mathematical statements for nultiplication and division within the multiplication ables and write them using he multiplication (x), division (*) and equals (=) signs. Spring 2	Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers, using mental and progressing to formal written methods. Autumn 3 Spring 1	Multiply two-digit and three-digit numbers by a one-digit number using formal written layout. Spring 1	Multiply numbers up to 4 digits by a one- or two- digit number using a formal written method, including long multiplication for two-digit numbers. Multiply and divide numbers mentally drawing upon known facts. Divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context. Multiply and divide whole numbers and those involving decimals by 10,	Multiply multi-digit number up to 4 digits by a two- digit whole number using the formal written method of long multiplication. Divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context. Divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders
					Autumn 3	Perform mental calculations, including with

					Spring I	mixed operations and large numbers. Autumn 2
Multiplication & Division: Solve Problems	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	Solve one-step problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including	Solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which p. chiects are	Solve problems involving multiplying and adding, including using the distributive law to multiply two-digit numbers by one digit, integer scaling problems and harder	Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes.	Solve problems involving addition, subtraction, multiplication and division. Autumn 2
	Summer I	Spring 2	connected to m objects. Autumn 3 Spring I	such as n objects are connected to m objects. <b>Spring l</b>	nultiplication and division, including scaling by simple fractions and problems involving simple rates. Autumn 3 Spring 1	
Multiplication & Division: Combined Operations					Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign. Autumn 3 Spring 1	Use their knowledge of the order of operations to carry out calculations involving the four operations. Autumn 2
Fractions: Recognise and Write	Recognise, find and name a half as one of two equal parts of an object, shape or quantity.	Recognise, find, name and write fractions 1/3 %, 2/4, and ¾ of a length, shape, set of objects or quantity.	Count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts, and in dividing one-digit	Count up and down in hundredth; recognise that hundredths arise when dividing and object by one	Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths.	

	Recognise, find and name a	Summer I	numbers or quantities by	hundred and dividing		
	quarter as one of four		10.	tenths by ten.	Recognise mixed numbers	
	equal parts of an object,				and improper fractions and	
	shape or quantity.		Recognise, find and write	Spring 3	convert from one form to	
			fractions of a discrete set of		the other and write	
	Summer 2		objects: unit fractions and		mathematical statements >I	
			non-unit fractions with		as a mixed number.	
			small denominators.			
					Autumn 4	
			Spring 3		Spring 2	
Fractions:		Recognise the equivalence	Recognise and show, using	Recognise and show, using	Compare and order	Use common factors to
C		of 2/4 and ½.	diagrams, equivalent	diagrams, families of	fractions whose	simplify fractions; use
Compare			fractions with small	common equivalent	denominators are all	common multiples to
		Summer I	denominators.	fractions.	multiples of the same	express fractions in the
					number.	same denomination.
			Compare and order unit	Spring 3		
			fraction, and fractions with		Autumr 4	Compare and order
			the same denominators.		Spring 2	fractions, including
						fractions >l.
			Summer I			
						Autumr 3
						Autumn 4
Fractions:		Write simple fractions, for	Add and subtract fractions	Add and subtract fractions	Add and subtract fractions	Add and subtract fractions
Caladate		example ½ of 6 = 3	with the same denominator	with the same denominator.	with the same denominator	with different denominators
Calculations			within one whole.		and denominators that are	and mixed numbers, using
		Summer I		Spring 3	multiples of the same	the concept of equivalent
			Summer I		number.	fractions.
					Multiple proper fractions	Multiply simple pairs of
					and mixed numbers by	proper fractions, writing the
					whole numbers, supported	answer in its simplest form.
					by materials and diagrams.	

				Autumr 4	Divide proper fractions by
				Spring 2	whole numbers.
					Autumr 3
					Autumr 4
Fractions: Solve		Solve problems that	Solve problems involving		
		involve all of the above.	increasingly harder		
Problems		v	fractions to calculate		
		Spring 3	quantities, and fractions to		
		Summer I	divide quantities, including		
			ronOunit fractions where		
			the answer is a whole		
			number.		
			Spring 3		
Decimals			Recognise and write	Read and write decimal	Identify the value of each
			decimal equivalents of any	numbers as fractions.	digit in numbers given to
Recognise and			number of tenths or		three decimal places.
Write			hundredths.	Recognise and use	
				thousandths and relate	Spring 3
			Recognise and write	them to tenths, hundredths	
			decimal equivalents to ¼ ,	and decimal equivalents.	
			1/2, 3/4		
				Spring 3	
			Spring 4	Summer 3	
			Summer I		
Decimals:			Round decimals with one	Round decimals with two	
C			decimal place to nearest	decimal places to the	
Compare			whole number.	nearest whole number and	
				to one decimal place.	
			Compare numbers with the		
			same number of decimal		

		places up to two decimal	Read, write, order and	
		places.	compare numbers with up	
		•	to three decimal places.	
		Summer I		
			Spring 3 Summer 3	
Decimals:		Find the effect of dividing a	Solve problems involving	Multiply and divide
		one- or two-digit number	number up to three decimal	numbers by 10, 100 and
Calculations &		by 10 or 100.	places.	1000 giving answers up to
Problems				three decimal places.
		Identifying the value of the	Spring 3	
		digits in the answer as	Summer 3	Multiply one-digit number
		ones, tenths and		with up to two decimal
		hundredths.		places by whole numbers.
		Spring 4		Use written division
				methods in cases where the
				answer has up to two
				decimal places.
				Solve problems which
				require answers to be
				rounded to specified
				degrees of accuracy.
				Spring, 3
Fractions,		Solve simple measure and	Recognise the percent	Associate a fraction with
		money problems involving	symbol (%) and understand	division and calculate
Decimais ana		fractions and decimals to	that per cent relates to	decimal fraction
Percentages		two decimal places.	'number of parts per	equivalents.
-			hundred' and write	
		Spring 3	percentages as a fraction	Recall and use
		Spring 4	with denominator 100, and	equivalences between
	 	 Summer I	as a decimal.	simple fractions, decimals

			Solve problems which require knowing percentage and decimal equivalents of ½, ¼, 1/5, 2/5. 4/5 and those fractions with a denominator of a multiple of 10 or 25. <b>Spring 3</b>	and percentages, including in different contexts. <b>Spring 4</b>
Ratio and Proportion				Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts. Solve problems involving the calculation of percentages and use of percentages for comparison. Solve problems involving similar shapes where the scale factor is known or can be found. Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples.

Algebra	Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7= 9	Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.	Solve problems, including missing number problems.		Use simple formulae. Generate and describe linear number sequences. Express missing number problems algebraically. Find pairs of numbers that satisfy and equation with two unknowns. Enumerate possibilities of
					Enumerate possibilities of combinations of two variables. <b>Spring 2</b>

	Year One	Year Two	Year Three	Year Four	Year Five	Year Six
Measurement:	Compare, describe and	Choose and use appropriate	Measure, compare, add and	Convert between different	Convert between different	Solve problems involving
	solve practical problems	standard units to estimate	subtract: lengths	units of measure.	units of metric measure.	the calculation and
Using Medaures	for:	and measure length/height	(m/cm/mm);			conversion of units of
	Lengths and heights	in any direction (m/cm);	volume/capacity (l/ml).	Estimate, compare and	Understand and use	measure, using decimal
	Mass/weight	mass (kg/g); temperature		calculate different	approximate equivalences	notation up to three
	Capacity and volume	(°C); capacity (litres/ml) to	Spring 2	measures.	between metric units and	decimal places where
	Time	the rearest appropriate	Spring 4		common imperial units such	appropriate.
		unit, using rulers, scales,		Autumn 3	as inches, pounds and	
	Measure and begin to	thermometers and		Spring, 2	pints.	Use, read, write and
	record the following:	measuring vessels.		Summer 3		convert between standard
	Lengths and heights				Use all four operations to	units, converting
	Mass/weight				solve problems involving	measurements of length,

	Capacity and volume Time (hours, minutes, seconds). Spring 4 Spring 5 Summer 6	Compare and order lengths, mass, volume/capacity and record the results using, > < and =. Spring, 3 Spring, 4			measure using decimal notation, including scaling. Summer 5	mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to three decimal places. Convert between miles and kilometres. Spring 5
Measurement: Money	Recognise and know the value of different denominations of coins and notes. Summer 5	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.	Add and subtract amounts of money to give change, using both £ and p in practical contexts. Summer 2	Estimate, compare and calculate different measures, including money in pounds and pence. Summer 2	Use all four operations to solve problems involving measure (money).	
Measurement: Time	Sequence events in chronological order using language (before, after, next, first, today, yesterday,	Compare and sequence interval of time. Tell and write the time to five minutes, including	Tell and write the time from an analogue clock, including using Roman numerale from I to XII,	Read, write and convert time between analogue and digital 12and 24-hour clocks.	Solve problem involving converting between units of time.	Use, read, write and convert between standard units, converting measurements of time from a smaller unit of measure

	tomorrow, morning,	quarter past/to the hour	and 12-hour and 24-hour	Solve problems involving		to a larger unit, and vice
	afternoon and evening)	and draw hands on a clock	clocks.	converting from hours to		versa.
		face to show these times.		minutes; minutes to		
	Recognise and use		Estimate and read time	seconds; years to months;		
	language relating to dates,	Know the number of	with increasing accuracy to	weeks to days.		
	including days of the week,	minutes in an hour and the	the nearest minute; record			
	weeks, months and years.	number in a day.	and compare time in terms	Summer 3		
			of seconds, minutes and			
	Tell the time to the hour	Summer 2	hours; use vocabulary such			
	and half past the hour and		as o'clock, a.m./p.m.,			
	draw the hands on a clock		morning, afternoon, noon			
	face to show these times.		and midnight.			
	Summer 6		Know the number of			
			seconds in a minute and			
			the number of days in each			
			month, year and leap year.			
			Compare durations of			
			events.			
			Summer 3			
Measurement:			Measure the perimeter of	Measure and calculate the	Measure and calculate the	Recognise that shapes with
			simple 2-D shapes.	perimeter of a rectilinear	perimeter of composite	the same area can have
Perimeter, Area,				figure (including squares) in	rectilinear shapes in	different perimeter and vice
Volume			Spring 2	centimetres and metres.	centimetres and metres.	versa.
			Spring 4			
				Find the area of rectilinear	Calculate and compare the	Recognise when it is
				shapes by counting	area of rectangles	possible to use formulae for
				squares.	(including squares), and	area and volume of shapes.
					including using standard	
				Autumr 3	units, square centimetres	Calculate the area of
				Spring 2	(cm2) and square metres	parallelograms and
						triangles.

		(m2) and estimate the area	
		of irregular shapes.	Calculate, estimate and
			compare volume of cubes
		Estimate volume (including	and cuboids using standard
		cubes) and capacity.	units, including cubic
			centimetres (cm3) and cubic
		Spring 4	metres (m3), and extending
		Summer 6	to other units (for example,
			mm3 and km3)
			Spring 5

	Year One	Year Two	Year Three	Year Four	Year Five	Year Six
Geometry: 2-D	Recognise and name common 2-D shapes, for	Identify and describe the properties of 2–D shapes,	Draw 2-D shapes.	Compare and classify geometric shapes, including	Distinguish between regular and irregular polygons	Draw 2-D shapes using given dimensions and
Shapes	example, rectangles	including the number of	Summer 4	quadrilaterals and	based on reasoning about	angles.
	(including squares), circles,	sides and line symmetry in		triangles, based on their	equal sides and angles.	
	and triangles.	a vertical line.		properties and sizes.		Compare and classify
				Identify lines of symmetry	Use the properties of	geometric shapes based on
	Autumr 3	Identify 2-D shapes on the		in 2-D shapes presented in	rectangles to deduce	their properties and sizes.
		surface of 3-D shapes.		different orientations.	related facts and find	
					missing lengths and angles.	
		Compare and sort common		Summer 5		
		2-D shapes and everyday			Summer I	
		objects.				
		Autumr 3				
Geometry: 3-D	Recognise and name	Recognise and name	Make 3-D shapes using		Identify 3-D shapes from	Recognise, describe and
CI	common 3-D shapes.	common 3-D shapes.	modelling materials.		2-D representations.	build 3D shapes, including
Shapes	Including- cuboids, cubes,					nets.
	pyramids and spheres.				Summer I	

		Compare and sort common	Recognise 3-D shapes in			Summer
	Autumn 3	3-D shapes and even iday	different orientations and			
	/(0001111/5	objects	describe them			
		oljects.	describe them.			
		Autump 3	Summer 4			
Geometruz			Recognise angles as a	Identify acute and obtuse	Know angles are measured	Find unknown angles in
			property of shape or a	angles and compare and	in degrees: estimate and	any triangles,
Angles & Lines			description of a turn.	order angles up to two	compare acute, obtuse and	quadrilaterals, and regular
				right angles by size.	reflex angles.	polygons.
			Identify right angles,			
			recognise that two right	Identify lines of symmetry	Draw given angles, and	Recognise angles where
			angles make a half turn,	in 2-D shapes presented in	measure them in degrees.	they meet at a point, are on
			three make three quarters	different orientations.		a straight line, or are
			of a turn and four a		Identify:	vertically opposite, and find
			complete turn.	Complete a simple	-angles at a point and one	missing angles.
				symmetric figure with	whole turn (total 360°).	
			Identify whether angles are	respect to a specific line of	-angles at a point on a	Summer I
			greater than one less than	symmetry.	straight line and ½ a turn	
			a right angle.		(total 180°).	
				Summer 5	-other multiples of 90°.	
			Identify horizontal and			
			vertical lines and pairs of		Summer I	
			perpendicular and parallel			
			lines.			
			Summer 4			
Geometry:	Describe position, direction	Order and arrange		Describe positions on a	Identify, describe and	Describe positions on the
Position and	and movement, including	combinations of		2-D grid as coordinates in	represent the position of a	full coordinate grid (all four
	whole, half, quarter and	mathematical objects in		the first quadrant.	shape following a reflection	quadrants).
Direction	three-quarter turns.	patterns and sequences.			or translation, using the	
				Describe movements	appropriate language, and	Draw and translate simple
	Summer 3	Use mathematical		between positions as	know that the shape has	shapes on the coordinate
		vocabulary to describe		translations of a given unit	not changed.	

position, direction and	to the left/right and		plane, and reflect them in
movement, including	up/down.	Summer 2	the axes.
movement in a straight line			
and distinguishing between	Plot specified points and		Summer 2
rotation as a turn and in	draw sides to complete a		
terms of right angles for	given polygon.		
quarter, half and three-			
quarter turns (clockwise	Summer 5		
and anti-clockwise).			
Summer 4			

	Year One	Year Two	Year Three	Year Four	Year Five	Year Six
Statistics:		Interpret and construct	Interpret and present data	Interpret and present	Complete, read and	Interpret and construct pie
Durant and		simple pictograms, tally	using bar charts,	discrete and continuous	interpret information in	charts and line graphs and
Present ana		charts, block diagrams and	pictograms and tables.	data using appropriate	tables, including timetables.	use these to solve problems.
Interpret		simple tables.		graphical methods,		
			Summer 5	including bar charts and	Spring 5	Spring 6
		Summer 3		time graphs.		
				Summer 6		
		Ask and answer simple	Solve one-step and two-	Solve comparison, sum and	Solve comparison, sum and	Calculate and interpret the
		questions by counting the	step questions using	difference problems using	difference problems using	mean as an average.
		number of objects in each	information presented in	information presented in	information presented in a	
		category and sorting the	scaled bar charts and	bar charts, pictograms,	line graph.	Spring 6
		categories by quantity.	pictograms and tables.	tables and other graphs.		
					Spring, 5	
		Ask and answer questions	Summer 5	Summer 6		
		about totalling and				
		comparing categorical data.				
		Summer 3				

## Year 1 Scheme (WR 3.0):



Year 2 Scheme (WR 3.0):



Year 3 Scheme (WR 3.0):

_	Week 1 Week 2	Week 3	Week 4	Week 5 Week 6	Week 7	Week 8	Week 9	Week 10 Week 11	Week 12		
ε	Number		Number	Number				Number			
Autumn ter	Place value			Addition and subtraction			Multiplication and division A				
		VIEW				VIEW			VIEW		
	Number		Measurer	nent	Number			Measurement			
pring term	Multiplication and division B		d Length and perimeter		Fractions A			Mass and capacity			
0,		VIEW		VIEW			VIEW		VIEW		
_	Number	Measuren	ient	Measurement		Geometry	63.	Statistics			
ummer tern	Fractions B	Money	/	Time		Shape			Consolidation		
S	VIEW		VIEW		VIEW		VIEW	VIEW			

Year 4 Scheme (WR 3.0):









	Week 1 Week 2	Week 3	Week 4	Week 5 Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	
	Number	Number	Number Addition, subtraction, multiplication and division				Number Number Fractions A Fraction		Number		
Autumn term	Place value	Additi and di							ons B	Measurement Converting units	
	VIEW				VIEW		VIEW		VIEW	VIEW	
	Number	Number		Number	Number		Measuren	nent	Statist	tics	
pring term	Ratio	Algebr	ra	Decimals	Fraction decimal percente	s s and ages	Area, pe and vol	erimeter ume			
S	VIEW		VIEW	VIEW		VIEW		VIEW		VIEW	
	Geometry		s								
Shape			Geometry Position and direction		Themed projects, consolidation and p		lation and prol	blem solving	solving		
		VIEW	VIEW								