Maths Curriculum Overview

Reception

Our Maths curriculum follows the Statutory Framework for the Early Years Foundation Stage and the non-statutory guidance, Development Matters. We use the NCETM Mastering Number programme to guide the teaching of Number and Numerical Patterns. Number Sense Maths Early Years Number Sense is used to develop fluency with number. The Spatial Reasoning toolkit is used to guide the teaching of Spatial Reasoning.

Mastering Number

Terms 1 and 2	Terms 3 and 4	Terms 5 and 6
Pupils will build on previous experiences of number from their home and nursery environments, and further develop their subitising and counting skills. They will explore the composition of numbers within 5. They will begin to compare sets of objects and use the language of comparison. Pupils will: • identify when a set can be subitised and when counting is needed • subitise different arrangements, both unstructured and structured, including using the Hungarian number frame • make different arrangements of numbers within 5 and talk about what they can see, to develop their conceptual subitising skills • spot smaller numbers 'hiding' inside larger numbers connect quantities and numbers to finger patterns and explore different ways of representing numbers on their fingers • hear and join in with the counting sequence, and connect this to the 'staircase' pattern of the counting numbers, seeing that each number is made of one more than the previous number • develop counting skills and knowledge, including: that the last number in the count tells us 'how many' (cardinality); to be accurate in counting, each thing must be counted once and once only and in any order; the	Pupils will continue to develop their subitising and counting skills and explore the composition of numbers within and beyond 5. They will begin to identify when two sets are equal or unequal and connect two equal groups to doubles. They will begin to connect quantities to numerals. Pupils will: • continue to develop their subitising skills for numbers within and beyond 5, and increasingly connect quantities to numerals • begin to identify missing parts for numbers within 5 • explore the structure of the numbers 6 and 7 as '5 and a bit' and connect this to finger patterns and the Hungarian number frame • focus on equal and unequal groups when comparing numbers • understand that two equal groups can be called a 'double' and connect this to finger patterns • sort odd and even numbers according to their 'shape' • continue to develop their understanding of the counting sequence and link cardinality and ordinality through the 'staircase' pattern • order numbers and play track games • join in with verbal counts beyond 20, hearing the repeated pattern within the counting numbers	Pupils will consolidate their counting skills, counting to larger numbers and developing a wider range of counting strategies. They will secure knowledge of number facts through varied practice. Pupils will: • continue to develop their counting skills, counting larger sets as well as counting actions and sounds • explore a range of representations of numbers, including the 10-frame, and see how doubles can be arranged in a 10-frame • compare quantities and numbers, including sets of objects which have different attributes • continue to develop a sense of magnitude, e.g. knowing that 8 is quite a lot more than 2, but 4 is only a little bit more than 2 • begin to generalise about 'one more than' and 'one less than' numbers within 10 • continue to identify when sets can be subitised and when counting is necessary • develop conceptual subitising skills including when using a rekenrek

need for 1:1 correspondence; understanding that anything can be counted, including actions and sounds • compare sets of objects by matching • begin to develop the language of 'whole' when talking about objects which have parts		

Number Sense Maths Early Years Number Sense

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7
Autumn 1				Non-number		Number: Subitising quantities to 3	
				Spatial reasoning *Construction and 3D shapes*	Spatial reasoning *Construction 3D shapes*	**Book 1:** Subitising 1 - 2	**Book 2:** Subitising 1 – 3
				Continue spatial reasoning for rest of term through provocations in continuous provision			
Autumn 2	Non-number		Number: Subitising quantities to 5				
	Spatial reasoning *2D shapes and shape puzzles*	Spatial reasoning *2D shapes and shape puzzles*	**Book 3:** Subitising 1 - 4	**Book 3:** Subitising 1 - 4	**Book 4:** Subitising 1 - 5	**Book 4:** Subitising 1 – 5 (tens frames)	
	Continue spatial reasoning all term through provocations in continuous provision →						

Spring 1	Non-number		Number: Enumerating between 6 and 10 items			
	Pattern	Pattern	**Book 5:** Subitising 6 - 10	**Book 5:** Subitising 6 - 10	Counting out up to 10 items from a collection (not covered by EYNS)	
	Continue pattern all term through provocations in continuous provision →					
Spring 2	Non-number	Partitioning 2, 3, 4, 5 and 10 and 'number bonds' for these number				
	Spatial reasoning *Symmetry (incl. shape puzzles & construction)*	**Books 6 & 7:** Partitioning 2 and 3	**Book 8:** Partitioning 4	**Book 9:** Partitioning 5	**Book 10:** Partitioning 10	**Book 10:** Partitioning 10
	Continue spatial reasoning all term through provocations in continuous provision →					

Summer 1	Non-number		Composition of 6 – 9, and comparison of numbers to 10				
	Measures	Measures	**Book 11:** Composition of 6 - 9	**Book 11:** Composition of 6 - 9	**Book 12:** Comparing numbers to 10	**Book 12:** Comparing numbers to 10	
	Continue measures all term through provocations in continuous provision →						
Summer 2	Patterns in numbers to 10			Non-number			
	Book 13: Patterns in odd and even numbers	Book 13: Patterns in doubles	Book 13: Equal distribution	Pattern	Spatial reasoning *Maps and plans*	Measures	

Year 1

Our Maths curriculum follows the National Curriculum. We use Number Sense Maths to guide the small steps for children's learning in Number and Calculation. The non-statutory National Curriculum guidance is used to plan Shape and Space lessons, with Oak Academy slides being used to support this planning and the Spatial Reasoning toolkit used to support Continuous Provision.

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7
Autumn 1	Stage 1 Book 1	Stage 1 Book 2	Stage 1 Book 3	Stage 1	Stage 2 Book 1	Stage 2 Book 2	Stage 2 Book 3
	Subitising 1 - 5	Subitising 6 - 10	Subitising on tens frames	Gap teaching and consolidation	Make and Break 5	Make and Break 4, 3 & 2	Make and Break 10
Autumn 2	Stage 2 Book 4	Stage 2 Book 5	Stage 2 Book 6	Stage 2 Book 7	Stage 2	Stage 2	
	Make and Break 6	Make and Break 7	Make and Break 8	Make and Break 9	Gap teaching and consolidation	Gap teaching and consolidation	
Spring 1	Stage 3 Book 1	Stage 3 Book 1	Stage 3 Book 2	Stage 3 Book 2	Stage 3 Book 3	Stage 3 Book 3	
	One More, One Less	One More, One Less	Two More, Two Less	Two More, Two Less	Number 10 Fact Families	Number 10 Fact Families	
Spring 2	Stage 3 Book 4	Stage 3 Book 4	Stage 3 Book 5	Stage 3 Book 6	Stage 3 Book 6	Stage 3	
	Five and A Bit	Five and A Bit	Know About Zero	Doubles and Near Doubles	Doubles and Near Doubles	Gap teaching and consolidation	
Summer 1	Stage 3 Book 7	Stage 3 Book 7	Stage 3 Book 8	Stage 3 Book 9	Stage 3 Book 9	Stage 3 Book 9	
	Number Neighbours	Number Neighbours	7 Tree & 9 Square	Strategy Selection	Strategy Selection	Strategy Selection	
Summer 2	Stage 4 Book 1	Stage 4 Book 1	Stage 4 Book 1	Stages 3&4	Stages 3&4	Stages 3&4	Stages 3&4
	Ten and A Bit	Ten and A Bit	Ten and A Bit	Gap teaching and consolidation	Gap teaching and consolidation	Gap teaching and consolidation	Gap teaching and consolidation

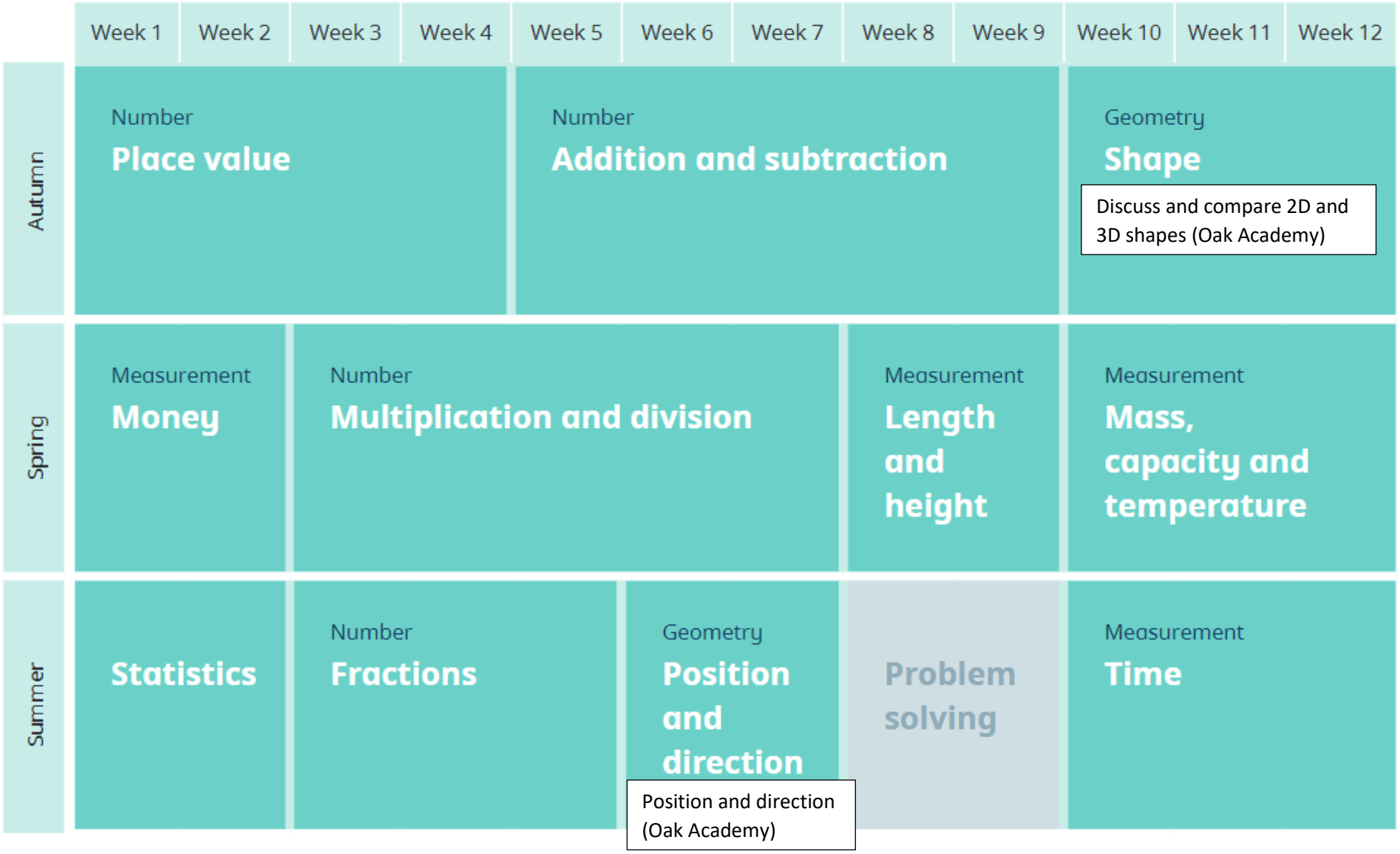
Shape and Space units

Recognise, compose, decompose and manipulate 2D and 3D shapes

Position and direction including fractions of turns

Year 2

Our Maths curriculum follows the National Curriculum. We use White Rose Maths to guide the small steps for children's learning and the Number Sense Maths programme to develop fluency. The non-statutory National Curriculum guidance is used to plan Shape and Space lessons, with Oak Academy slides being used to support this planning and the Spatial Reasoning toolkit used to support Continuous Provision.

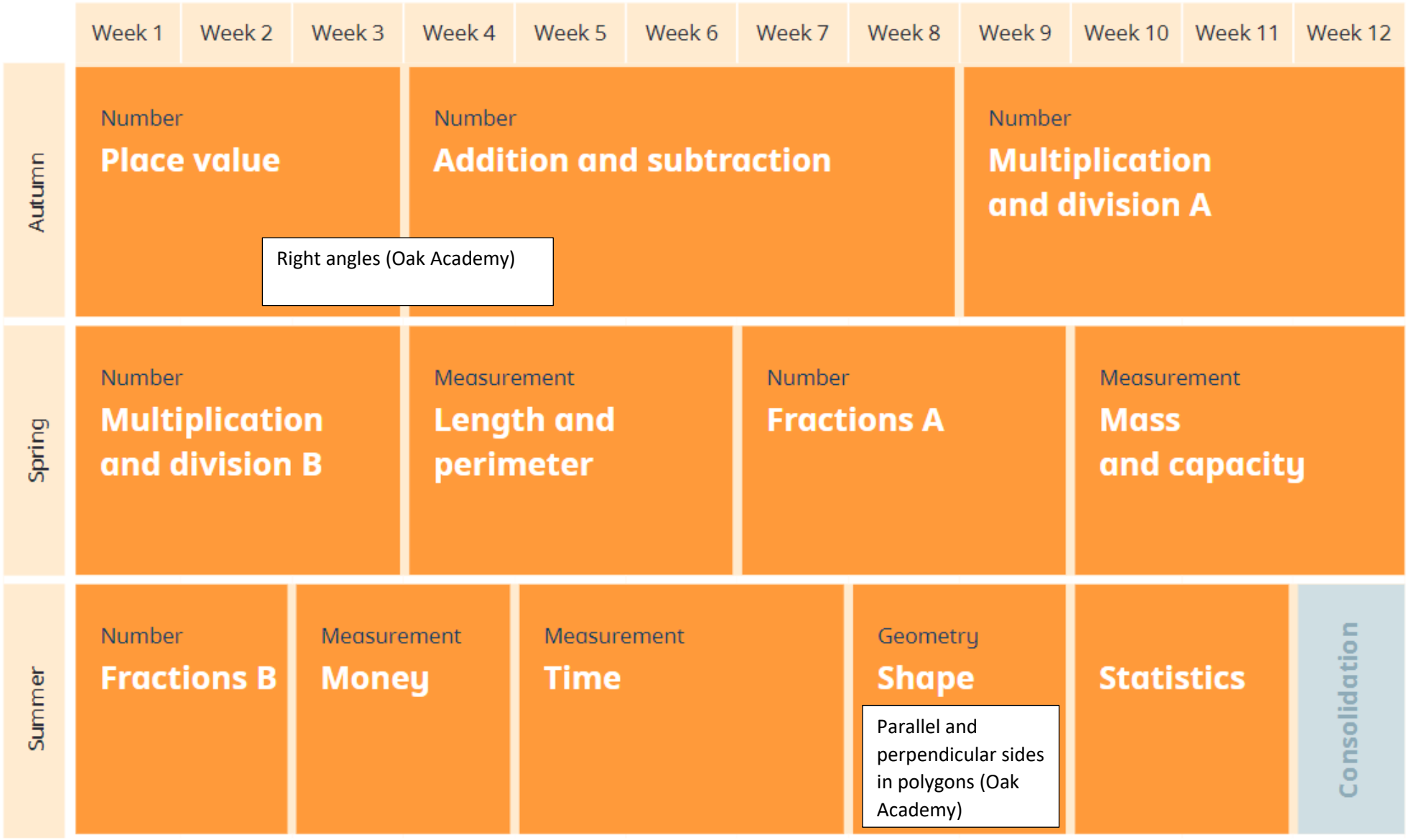


Fluency - Number Sense Maths Number Facts Fluency

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7
Autumn 1	Stage 1 & 2 (review)	Stage 3 Books 1 – 3 (review)	Stage 3 Books 4 – 6 (review)	Stage 3 Books 7 & 8 (review)	Stage 3 Book 9 (review)	Stage 4	Stage 3 Stage 4
	Subitising and partitioning	-One More, One Less -Two More, Two Less -Number 10 Fact families	-Five and A Bit -Know About Zero -Doubles and Near Doubles	-Number Neighbours -7 Tree 9 Square	Strategy Selection	Ten and A Bit	Gap teaching and consolidation
Autumn 2	Stage 5	Stage 5	Stage 5	Stage 5	Stage 5	Stage 5	
	Make Ten and Then: Addition	Make Ten and Then: Addition	Make Ten and Then: Addition	Make Ten and Then: Subtraction	Make Ten and Then: Subtraction	Make Ten and Then: Subtraction	
Spring 1	Stage 5	Stage 5	Stage 5	Stage 5	Stage 5	Stage 5	
	More Doubles and Near Doubles	More Doubles and Near Doubles	More Doubles and Near Doubles	Adjusting	Adjusting	Adjusting	
Spring 2	Stage 5 Strategy Selection	Stage 5 Strategy Selection	Stage 5 Strategy Selection	Stage 6 Calculating with Multiples of 10	Stage 6 Two-Digit Numbers: Calculating with Ones	Stage 6 Two-Digit Numbers: Calculating with Tens	
Summer 1	Stage 6	Stage 6	Teacher decision on use of sessions over period of KS1 SATs				
	Make the Next Ten and Then	Make the Previous Ten and Then					
Summer 2	Stage 5	Stage 5	Stage 5	Stage 5	Stage 5	Stage 5	Stage 5
	Stage 6	Stage 6	Stage 6	Stage 6	Stage 6	Stage 6	Stage 6
	Small group gap teaching and consolidation	Whole class gap teaching and consolidation	Small group gap teaching and consolidation	Whole class gap teaching and consolidation	Small group gap teaching and consolidation	Whole class gap teaching and consolidation	Small group gap teaching and consolidation

Year 3

Our Maths curriculum follows the National Curriculum. We use White Rose Maths to guide the small steps for children's learning. The non-statutory National Curriculum guidance is used to plan Shape and Space lessons, with Oak Academy slides being used to support this planning and the Spatial Reasoning toolkit used to support Continuous Provision.

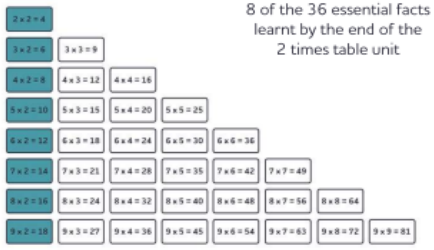


Fluency - Number Sense Maths Number Facts Fluency

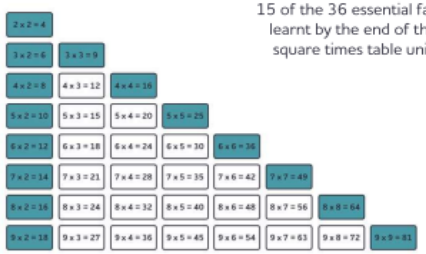
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7
Autumn 1	Stage 5 Book 1 (review)	Stage 5 Book 2 (review)	Stage 5 Book 3 (review)	Stage 5 Book 4 (review)	Stage 5 Book 6	Stage 6 Book 6	Stage 6 Book 7
	Make Ten and Then: Addition	Make Ten and Then: Subtraction	More Doubles and Near Doubles	Adjusting	Make Ten and Then: Subtraction Part 2	Make Ten and Then: Subtraction Part 2	Strategy Selection Part 2
Autumn 2	Stage 6 Books 1 – 3 (review)	Stage 6 Books 3 – 5 (review)	Stage 6 Book 6	Stage 6 Book 6	Stage 6 Book 6	Stage 6 Book 6	
	Calculating with multiples of 10 Calculating with ones Calculating with tens	Calculating with tens Make the next 10 and then Make the previous 10 and then	Strategy Selection	Strategy Selection	Strategy Selection	Strategy Selection	

Fluency - Number Sense Maths Times Table Facts Fluency

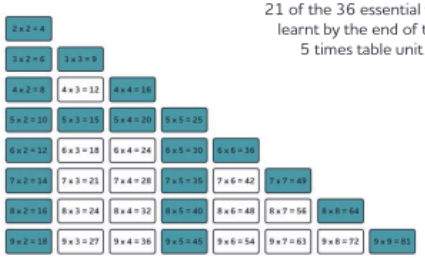
Autumn	Spring		Summer		
	Stage 1 Unit 1 Doubles	Stage 2 Unit 1 2 Times Table	Stage 2 Unit 2 Square Times Table	Stage 2 Unit 3 5 Times Table	Stage 2 Unit 4 Consolidation
	5 weeks	*5 weeks* *(8 facts)*	*5 weeks* *(7 new facts)*	*5 weeks* *(6 new facts)*	*3-5 weeks* *21 out of 36 facts learnt by end of Year 3*



8 of the 36 essential facts learnt by the end of the 2 times table unit



15 of the 36 essential facts learnt by the end of the square times table unit



21 of the 36 essential facts learnt by the end of the 5 times table unit

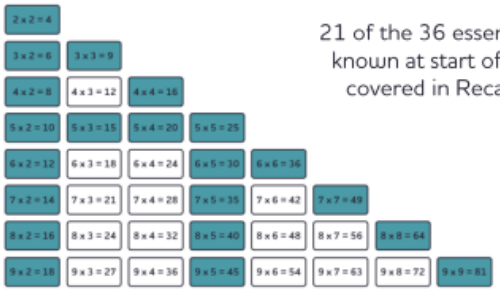
Year 4

Our Maths curriculum follows the National Curriculum. We use White Rose Maths to guide the small steps for children's learning.



Fluency - Number Sense Maths Times Table Facts Fluency

Autumn			Spring						Summer			
Stage3 Unit 1 Recap	Stage 3 Unit 2 3 Times Table	Stage 3 Unit 3 4 Times Table	Stage 3 Unit 4 6 Times Table	Stage 3 Unit 5 7 Times Table	Stage 3 Unit 6 8 Times Table	Stage 3 Unit 7 9 Times Table	Stage4 Unit1 More squares	Stage4 Unit2 10&11 TT	Stage 4 Unit 3 12 Times Table	Stage 4 Unit 4 MTC Prep	MTC	Stage 5 Consolidation
3 weeks	*5 weeks (5 new facts)*	*5 weeks (4 new facts)*	*3 weeks (3 new facts)*	*3 weeks (2 new facts)*	*2 weeks (1 new fact)*	*2 weeks (0 new facts)*	*1 wk*	*1 wk*	*4 weeks*	*3 weeks*	*1 wk*	*3-5 weeks*
		30 out of 36 facts learnt by end of Autumn Term			*All 36 facts learnt by mid Spring 2*		*(Remaining facts needed for MTC learnt)*					



21 of the 36 essential facts known at start of Y4 and covered in Recap unit



26 of the 36 essential facts learnt by the end of the 3 times table unit



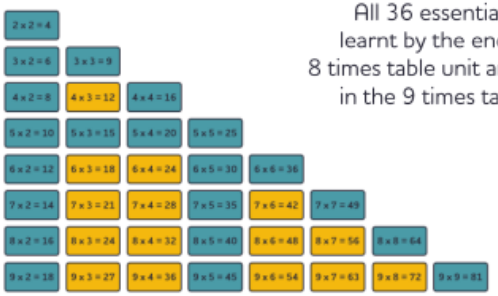
30 of the 36 essential facts learnt by the end of the 4 times table unit



33 of the 36 essential facts learnt by the end of the 6 times table unit



35 of the 36 essential facts learnt by the end of the 7 times table unit



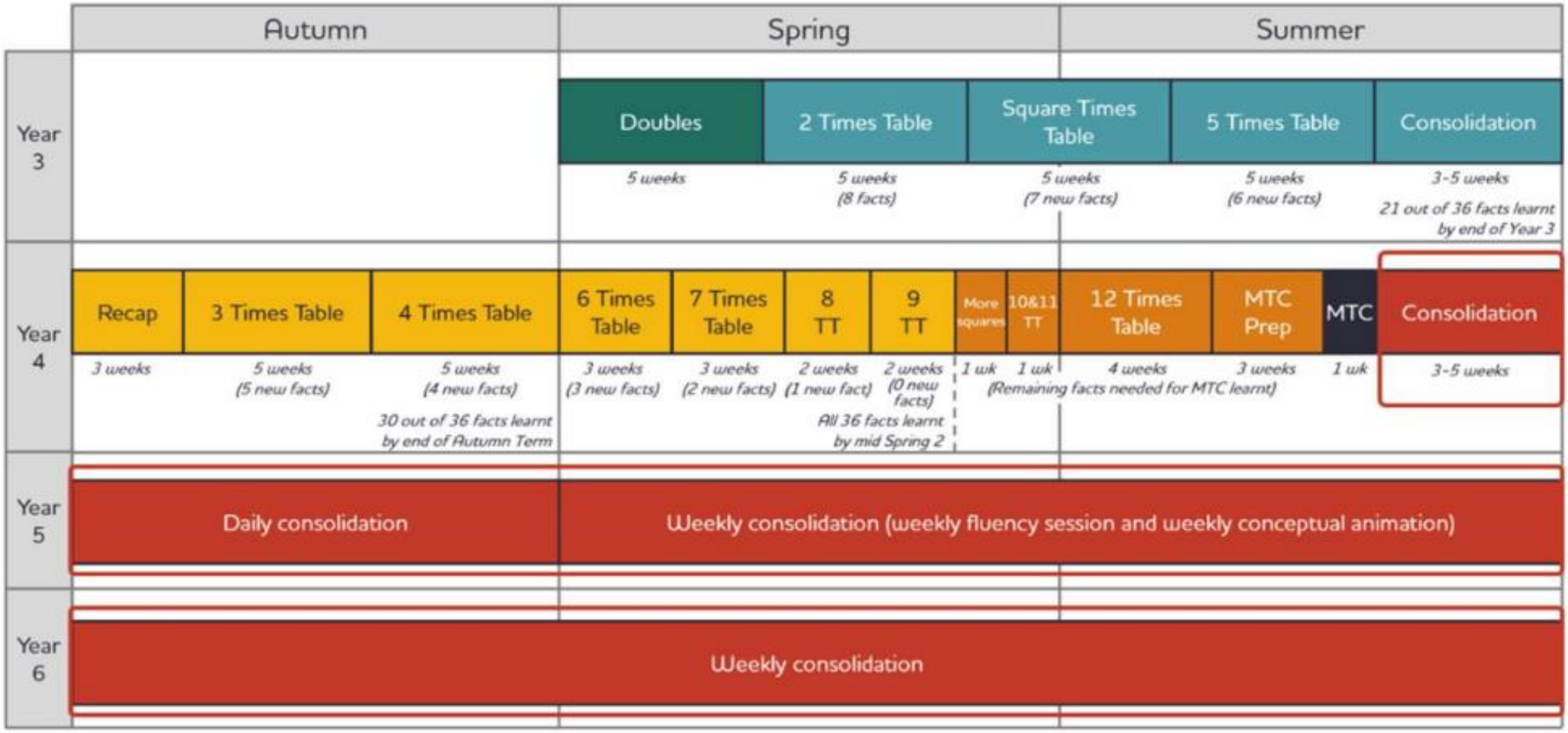
All 36 essential facts learnt by the end of the 8 times table unit and secured in the 9 times table unit

Year 5

Our Maths curriculum follows the National Curriculum. We use White Rose Maths to guide the small steps for children's learning.

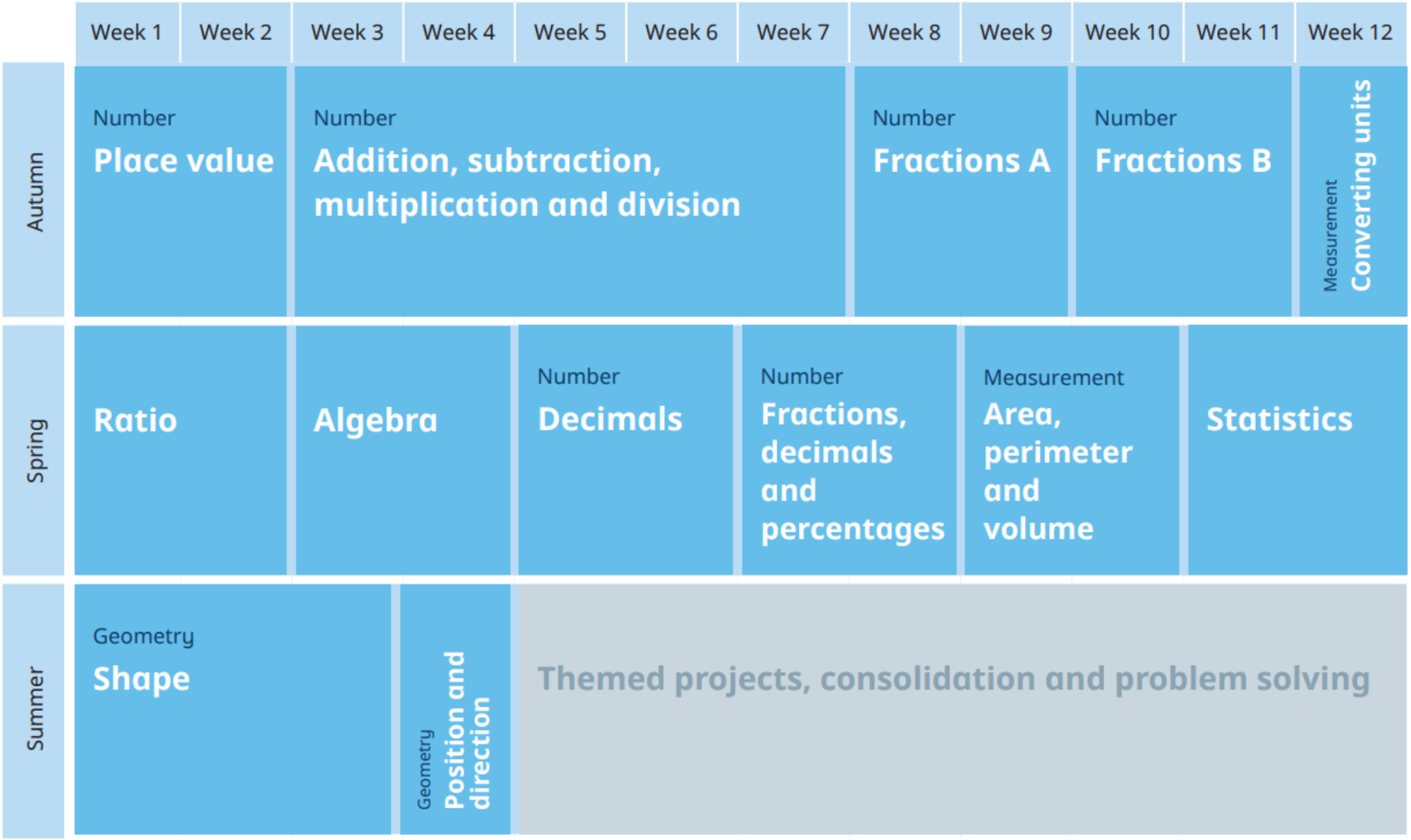
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Number **Place value**			Number **Addition and subtraction**		Number **Multiplication and division A**			Number **Fractions A**			
Spring	Number **Multiplication and division B**			Number **Fractions B**		Number **Decimals and percentages**			Measurement **Perimeter and area**		**Statistics**	
Summer	Geometry **Shape**			Geometry **Position and direction**		Number **Decimals**			Number **Negative numbers**	Measurement **Converting units**		Measurement **Volume**

Fluency - Number Sense Maths Times Table Facts Fluency

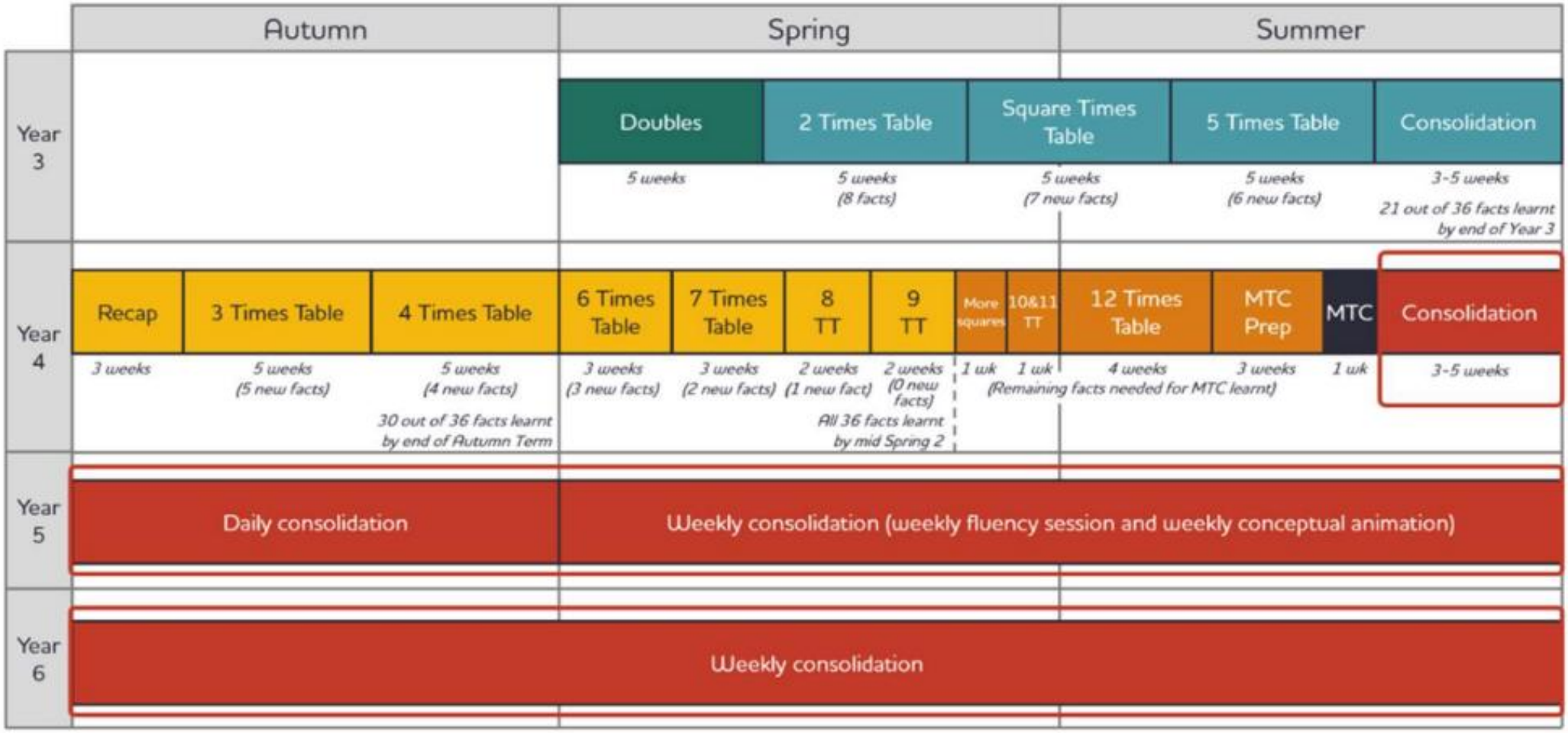


Year 6

Our Maths curriculum follows the National Curriculum. We use White Rose Maths to guide the small steps for children's learning.



Fluency - Number Sense Maths Times Table Facts Fluency



Problem solving and reasoning

Look for opportunities to use Gareth Metcalfe's 'I See Reasoning' and 'I See Problem Solving' resources.

Small Difference Questions

Complete with the correct symbol: < = >

4350	>	3000 + 350	8000 + 30 + 6 ☐ 8306
4350	☐	4000 + 400	800 + 300 + 6 ☐ 8306
4350	☐	4000 + 60	8000 + 600 + 30 ☐ 8360
4350	☐	4300 + 60	8000 + 200 + 160 ☐ 8360
4350	☐	4050 + 300	5000 + 4000 ☐ 8360

Agree or Disagree?

You have an unlimited number of 1000, 100, 10 and 1 coins.

All four types of coins are needed to make 1326



The easiest way to make 1326 is…

It can also be done by…

How Many Ways?

You have a pile of **100** and **1000** coins.

Make 4100



Level 1: *I can find a way.*
Level 2: *I can find different ways.*
Level 3: *I know all the ways it can be done.*

My first answer was…

To find my next answer I used one less… and…

Extend: *Can 4500 be made in more ways? Explain.*

Megan has read $\frac{3}{5}$ of her book.

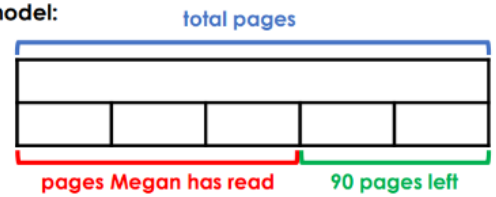
She has 90 pages left to read.

How many pages long is her book?

Task 29 Prompts: Part-finished book

SUPPORT

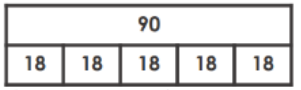
Bar model:



EXPLAIN

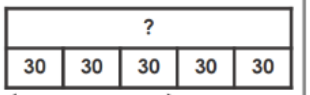
Explain the mistakes:

Mistake 1



$\frac{3}{5}$ of 90 = 54 pages

Mistake 2



$\frac{3}{5} = 90$ so $\frac{1}{5} = 30$

$30 \times 5 = 150$ pages

EXTEND

Sam is reading two books: 'Olympic Stories' and 'Jack's Big Surprise'.

He has read $\frac{3}{4}$ of Olympic Stories.

He has read $\frac{3}{5}$ of Jack's Big Surprise.

He has 60 pages left to read of each book.

How many pages long is each book?