

## Year 3

<u>Children know how to:</u>	<u>Opportunities and ideas for <a href="#">journaling</a>. “How do mathematicians..”</u>	<u>Problem Solving and reasoning opportunities</u>	<u>NCETM Spine and Assessment Materials</u>
<b>AUTUMN</b>			
<b><u>Number: Place Value (3 WEEKS)</u></b>			<a href="#">Year 3 Spine 1</a>
Hundreds	<u>White Rose Activities</u>  Numbers to 1,000 on a place value grid  How do mathematicians order numbers?  How do mathematicians find more or less?	NRICH <a href="#">Which scripts?</a> <a href="#">Coded hundred square</a> <a href="#">Number differences</a> <a href="#">Magic Vs</a> <a href="#">Number match</a> <a href="#">Sitting round the party tables</a> <a href="#">Take three numbers</a> <a href="#">That number square</a>  <a href="#">I See Reasoning</a> Page 6-22	1.17: TP 1.1- 1.7 (explores composition of 100) 1.17: TP 3.4-3.8  1.18: TP 5.4  1.17: TP 1.5  <a href="#">Yr3 NCETM assessment materials</a> Page 9-12
Represent numbers to 1000			
100s, 10s and 1s (1)			
100s, 10s and 1s (2)			
Number line to 1000			
Find 1, 10, 100 more or less than a given number			
Compare objects to 1000			
Compare numbers to 1000			
Order numbers			
Count in 50s			
<b><u>Number: Multiplication and Division (1) (3 WEEKS)</u></b>			<a href="#">Year 3 Spine 2</a>
Multiplication- equal groups	How do mathematicians multiply by...	NRICH <a href="#">Ordering cards</a> <a href="#">Music to my ears</a> <a href="#">A square of numbers</a> <a href="#">Follow the numbers</a>  <a href="#">I See Reasoning</a> Page 54-87	2.8: TP 1.1-1.10 (moves on to 6x and 9x table but at this stage secure 3x table)  2.7: TP 1.1-1.11, 2.1-2.8, 3.1-3.10, 4.1-4.13, 5.1-5.7  <a href="#">Yr3 NCETM assessment materials</a> Page 16-18
Multiply by 3			
Divide by 3			
The 3 times table			
Multiply by 4			
Divide by 4			
The 4 times table			
Multiply by 8			
Divide by 8			
The 8 times table			
<b><u>Number: Fractions (2 WEEKS) (YEAR 2 UNIT)</u></b>			<a href="#">Year 2 Spine 3</a>
Make equal parts	<u>White Rose Activities</u>		<a href="#">3.0: Guidance on the teaching of fractions at KS1</a>
Recognise a third			

Find a third	Working with parts and wholes Problem solving with fractions  How do mathematicians find equivalent fractions?  How do mathematicians find count in fractions?		<a href="#">Yr2 NCETM assessment materials</a> Page 19-22
Unit fractions			
Non-unit fractions			
Equivalence of 1/2 and 2/4			
Find three quarters			
Count in fractions			
<b><u>Number: Addition and Subtraction (5 WEEKS)</u></b>			
Add and subtract multiples of 100	How do mathematicians add 3 digit numbers?	NRICH <a href="#">Buying a balloon</a> <a href="#">Super shapes</a> <a href="#">Strike it out</a> <a href="#">Dicey addition</a> <a href="#">Half time</a> <a href="#">Play to 37</a> <a href="#">Build it up</a> <a href="#">Finding fifteen</a> <a href="#">Domino square</a> <a href="#">Got it</a> <a href="#">Consecutive numbers</a> <a href="#">Dice in a corner</a> <a href="#">4 Dom</a>	1.20: TP 1.1-1.3, 2.1-2.4, 3.1-3.5, 4.1- 4.7, 5.1-5.5  1.21: TP 1.1- 1.6, 2.1-2.10  Teach this first 1.17: TP 2.1- 2.11 3.1- 3.13, 4.1-4.10 (mental calculation strategies around the number 100).  1.19: TP 1.1-1.3, 2.1-2.12, 3.1-3.11, 4.1-4.4 (mental strategies up to 999)  1.18: TP 5.1- 5.15 (mental addition within 1,000)  <a href="#">Yr3 NCETM assessment materials</a> Page 13-15
Add and subtract 3-digit and 1-digit numbers- not crossing 10			
Add and subtract 3-digit and 1-digit numbers- crossing 10			
Subtract a 1-digit number from a 3-digit number- crossing 10			
Add and subtract 3-digit and 2-digit numbers- not crossing 100			
Add 3-digit and 2-digit numbers- crossing 100			
Subtract a 2-digit number from a 3-digit number- crossing 100			
Add and subtract 100s			
Spot the pattern- making it explicit			
<b>SPRING</b>			
<b><u>Number: Addition and Subtraction (2 WEEKS)</u></b>			
Add and subtract a 2-digit and 3-digit numbers- not crossing 10 or 100	Continued from Autumn unit		
Add a 2-digit and 3-digit numbers- crossing 10 or 100			

Subtract a 2-digit number from a 3-digit number- crossing 10 or 100			
Add two 3-digit numbers- not crossing 10 or 100			
Add two 3-digit numbers- crossing 10 or 100			
Subtract a 3-digit number from a 3-digit number- no exchange			
Subtract a 3-digit number from a 3-digit number-exchange			
Estimate answers to calculations			
Check answers			
<b><u>Number: Multiplication and Division (2) (3 WEEKS)</u></b>			
Comparing statements	<p><u>White Rose Activities</u>  Multiply 2-digits by 1-digit - no exchange  Multiply 2-digits by 1-digit - exchange  Divide 100 into 2, 4, 5 and 10 equal parts  Divide with remainders</p> <p>How do mathematicians multiply?</p> <p>How do mathematicians divide?</p>	<p><u>I See Reasoning</u>  Page 54,64</p> <p><u>NRICH</u>  <u>What's in the box?</u>  <u>lp dip</u>  <u>Journeys in Numberland</u>  <u>The pied Piper of Hamelin</u></p>	<p><u>Yr3 NCETM assessment materials</u>  P16-18</p>
Related calculations			
Multiply 2-digits by 1-digit (1)			
Multiply 2-digits by 1-digit (2)			
Divide 2-digits by 1-digit (1)			
Divide 2-digits by 1-digit (2)			
Divide 2-digits by 1-digit (3)			
Scaling			
How many ways?			
<b><u>Measurement: Time (1 WEEK)</u></b>			
Months and years	<p>How do mathematicians read the time?</p>	<p><u>I See Reasoning</u>  Page 95,102,103</p> <p><u>NRICH</u>  <u>Olympic Starters</u>  <u>What is the time?</u>  <u>Clocks</u>  <u>Two clocks</u>  <u>The time is 5 on the clock</u>  <u>Approaching midnight</u>  <u>Wonky Watches</u>  <u>Watch the Clock</u></p>	<p><u>Yr3 NCETM assessment materials</u>  P22-25</p>
Hours in a day			
Telling the time to 5 minutes			
Telling the time to the minute			
<b>Statistics</b>			
Pictograms		<p><u>NRICH</u></p>	

Bar charts	To be taught in Geography unit	<a href="#">How Big Are Classes 5, 6 and 7?</a> <a href="#">Our Sports</a> <a href="#">Class 5's Names</a> <a href="#">Going for Gold</a> <a href="#">The Domesday Project</a> <a href="#">The Car That Passes</a> <a href="#">If the World Were a Village</a> <a href="#">Now and Then</a> <a href="#">It's a Tie</a> <a href="#">Real Statistics</a>	
Tables			
<b><a href="#">Measurement: Length and Perimeter (3 WEEKS)</a></b>			
Measure length	<a href="#">White Rose Activities</a> What is perimeter? Calculate perimeter activity  How do mathematicians measure?	<a href="#">I See Reasoning</a> Page 94,-95, 105-109  <b>NRICH</b> <a href="#">Olympic starters</a> <a href="#">Car journey</a>	<a href="#">Yr3 NCETM assessment materials</a> P22-25
Equivalent lengths- m and cm			
Equivalent lengths- mm and cm			
Compare lengths			
Add lengths			
Subtract lengths			
Measure perimeter			
Calculate perimeter			
<b><a href="#">Number: Fractions (2 WEEKS)</a></b>			
Unit and non-unit fractions	How do mathematicians find fractions of amounts?	<b>NRICH</b> <a href="#">Fraction Match</a> <a href="#">Matching fractions</a>  <a href="#">I See Reasoning</a> Page 75-88	<a href="#">Year 3 Spine 3</a>  <u>Teach this first</u>  3.1: TP 1.1-1.7, 2.1-2.7, 3.1-3.6, 4.1-4.5 (Pre-teach of the part-whole relationship)  3.2: TP 1.1-1.2, 2.1-2.6, 3.1-3.8, 4.1-4.6, (Pre-teach of unit fractions)  3.3: TP 1.1-1.6, 2.1-2.7, 3.1-3.5, 4.1-4.6, 6.1-6.6  3.2: TP 6.1- 6.9  3.3: TP 5.1-5.6  3.4: TP 1.1-1.15, 3.1- 3.5
Making the whole			
Tenths			
Count in tenths			
Tenths as decimals			
Fractions on a number line			
Fractions of a set of objects (1)			
Fractions of a set of objects (2)			
Fractions of a set of objects (3)			

			<p>3.4: TP 2.1-2.8</p> <p>3.2: TP 5.1- 5.4,</p> <p>3.3: TP: 4.1-4.5</p> <p>3.3: TP: 7.1-7.6, 8.1-8.13</p> <p>3.4: TP 4.1- 4.5</p> <p><a href="#">Yr3 NCETM assessment materials</a> Page 19-21</p>
<b>SUMMER</b>			
<b><u>Number: Fractions (3 WEEKS)</u></b>			
Equivalent fractions (1)	See above	See above	See above
Equivalent fractions (2)			
Equivalent fractions (3)			
Compare fractions			
Order fractions			
Add fractions			
Subtract fractions			
<b><u>Measurement: Time (2 WEEKS)</u></b>			
Months and years	<u>White Rose Activity</u> 24-hour clock  Consolidate from Spring term.	See above	
Hours in a day			
Telling the time to 5 minutes			
Telling the time to the minute			
Using a.m. and p.m.			
24-hour clock			
Measuring time in seconds			
<b><u>Measurement: Money (1 WEEK)</u></b>			
Pounds and pence	Big focus on add and subtract. Extend if needed.	<u>I See Reasoning</u> Page 97-98  NRICH <u>How much did it cost?</u>	<u>Yr3 NCETM assessment materials</u> Page 22-25
Convert pounds and pence			
Add money			
Subtract money			
Give change			
<b><u>Geometry: Properties of Shape (2 WEEKS)</u></b>			
Turns and angles		<u>I See Reasoning</u>	

Right angles in shapes	How do mathematicians turn?	P111-118	<a href="#">Yr3 NCETM assessment materials</a> Page 26-27
Compare angles			
Draw accurately			
Horizontal and vertical			
Parallel and perpendicular			
Recognise and describe 2D shapes			
Recognise and describe 3D shapes			
Make 3D shapes			
<b><u>Measurement: Mass and Capacity (3 WEEKS)</u></b>			
Measure mass (1)	<u>White Rose Activities</u> Measure mass Measure capacity Temperature activity  How do mathematicians compare mass?  How do mathematicians compare capacity?	<u>I See Reasoning</u> P94-95  <u>NRICH</u> <a href="#">Olympic starters</a> <a href="#">Car journey</a> <a href="#">Oh Harry</a>	<a href="#">Yr3 NCETM assessment materials</a> Page 22-25
Measure mass (2)			
Compare mass			
Add and subtract mass			
Measure capacity (1)			
Measure capacity (2)			
Compare capacity			
Add and subtract capacity			