

Mathematics



St Thomas and St Anne's CE Primary school

Intent

We believe that in order for pupils to be confident mathematicians, they need a firm foundation and concrete understanding of number and the number system and so, across the school, we use the Concrete Pictorial Abstract (CPA) approach to teaching mathematics. This allows children to explore mathematical concepts in lots of different ways, using a range of visual representations and it helps children to see the links between different concepts in this subject. This approach is utilised from foundation stage right through to Year 6. We use a mastery approach to teaching maths and aim for all children to achieve this.

Implementation

To support children to develop their mathematical knowledge, skills and understanding, a lesson structure is in place for maths lessons. This structure includes: a daily starter which recaps and feedbacks from previous learning; introduction of new learning and expert modelling which is developed further by significant opportunities to talk. This provides children with the opportunity to practise the new skill collaboratively and then in independent application. The independent aspect includes challenges, activities and questions designed to develop fluency, varied fluency, reasoning and problem solving. Daily assessment in the form of questioning, learning conversations with children and marking of books, identifies any children who may need additional support to achieve mastery of concepts and timely interventions ensure that children catch up. Maths lessons are taught daily and in addition to this, children are taught rapid recall of key mathematical facts and 'Flashback 4' activities, which utilise interleaving and distribution to aid memory.

Children have opportunities across the curriculum to use and apply their mathematical skills, knowledge and understanding in real life contexts.

Please see long term planning sequences below.

Early Number – EYFS

We have adopted a systematic approach to teaching children early number concepts as we believe like phonics for reading, a solid conceptual understanding of number are the building blocks for successful mathematicians.

Children in Reception follow the Number Blocks series as well as having opportunities to explore other aspects of the EY mathematics curriculum.

[Number Blocks Support materials](#)

EYFS Curriculum Companion

Year 1

Term	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 (within 10) Small Steps: 15 NCETM Spine: 1.1 (comparison context) 1.3 , (numbers 0-5) and 1.4 (numbers 6-10) Note: part-whole shows up in 1.2 which could be used before 1.3				Number: Addition and Subtraction (within 10) Small Steps: 18 NCETM Spine: 1.2 (part whole model) 1.5 , 1.6 , 1.7			Geometry: Shape Small Steps: 5 NCETM Spine: N/A	Number: Place Value (within 20) Small Steps: 8 NCETM Spine: 1.10 (TP 1 and 2)		Consolidation	
Spring	Number: Addition and Subtraction (within 20) Small Steps: 8 NCETM Spine: 1.10 (TP 5), 1.11 (TP 5 and 6)				Number: Place Value (within 50) includes counting in 2s and 5s Small Steps: 9 NCETM Spine: 1.9 , 2.1			Measurement: Length and Height Small Steps: 3 NCETM Spine: 1.1		Measurement: Weight and Volume Small Steps: 6 NCETM Spine: 1.1		Consolidation
Summer	Number: Multiplication and Division Small Steps: 7 NCETM Spine: 2.1 (TP 1-3) could also ref back to 1.8 TP 2			Number: Fractions Small Steps: 4 NCETM: Key Stage 1 Year 1: Halving shapes or objects Year 1: Find a quarter of a shape or object		Geometry: Position & Direction Small Steps: 3 NCETM Spine: N/A	Number: Place Value (within 100) Small Steps: 6 NCETM Spine: 1.9		Measures: Money Small Steps: 3 NCETM Spine: 2.1 (TP 4 – 6)	Measurement: Time Small Steps: 6 NCETM Spine: N/A		Consolidation

NCETM Progression Grids can be found [here](#)

Year 2 and Year 3 (Elm Class)

This [NCETM Spine Link](#) directs you to the page including all three spines (Add and Subtract, Multiplication and Division, Fractions) and the hyperlinks on the document takes you to the relevant segment which offer: teacher guidance, PowerPoint representations, and video guidance.

White Rose Overview: <https://whiterosemaths.com/resources/schemes-of-learning/primary-sols/>

NCETM Teaching for Mastery home page: <https://www.ncetm.org.uk/teaching-for-mastery/>

Autumn Term (Y2/3)

Weeks	Block	Similar Content	NCETM PD Material links		NCETM Mapping document
			Year 2	Year 3	
Autumn 1 -3	Number: Place value Y2: Numbers to 100 Y3 Numbers to 1000	<p>Counting Year 2 (Aut B1) • Count forwards and backwards to 100 Year 3 (Aut B1) • Hundreds</p> <p>Representing numbers Year 2 (Aut B1) • Represent numbers to 100 • Tens and Ones - part-whole model • Tens and Ones using addition • Use a place value chart Year 3 (Aut B1) • Represent numbers to 1000 • 100s, 10s and 1s (1) • 100s, 10s and 1s (2) • Number line to 1000</p> <p>Compare groups and numbers Year 2 (Aut B1) • Compare objects • Compare numbers Year 3 (Aut B1) • Compare objects to 1,000 • Compare numbers to 1,000</p> <p>Order numbers Year 2 (Aut B1) • Order objects and numbers Year 3 (Aut B1) • Order numbers</p> <p>Within this block, Year 2 focus on numbers to 100 whilst Year 3 focus on numbers to 1,000 There are many opportunities for the class to focus on similar skills and understanding together before focusing separately on numbers of different sizes. Ensure children continue to use a range of concrete and pictorial representations to support their understanding.</p> <p>Find more or less Year 3 (Aut B1) • Find 1, 10, 100 more or less than a given number.</p>	1.9 (revisit Year 1 PV to 100) 2.1 (count in 2s, 5s, 10s)	1.17 (TP1 hundreds, 1000, 50s, 25s) 1.18 (TP1 100s,10s,1s) (TP2 number line to 1000) (TP3 1,10,100 more or less) (TP4 compare order)	Number and Place Value
Autumn 4 -9	Number: Addition and Subtraction Year 2: Within 100 Year 3: Within 1000	<p>Addition and Subtraction (1) Common Content</p> <p>Money Year 2 (Aut B3) • Count money - notes and coins • Select money Year 3 (Spr B2) • Pounds and pence • Convert pounds and pence</p> <p>Add and subtract multiples Year 2 (Aut B2) • Add and subtract 1s • 10 more and 10 less • Add and subtract 10s Year 3 (Aut B2) • Add and subtract multiples of 100 • 3-digit and 1-digit numbers • 3-digit and 2-digit numbers • Add and subtract 100s • Spot the pattern</p> <p>Addition - adding more Year 2 (Aut B2, B3) • Add a 2-digit and 1-digit - crossing 10 • Add two 2-digit numbers - not crossing 10 • Add two 2-digit numbers - crossing 10 • Add three 1-digit numbers • Find the total - money Year 3 (Aut B2, Spr B2) • Add 3-digit and 1-digit - crossing 10 • Add 3-digit and 2-digit - crossing 100 • 2-digit and 3-digit - not crossing 10/100 (addition) • 2-digit and 3-digit - crossing 10 or 100 • 3-digit numbers - not crossing 10 or 100 • 3-digit numbers - crossing 10 or 100 • Add money</p> <p>Fact families & number bonds Year 2 (Aut B2, Aut B3) • Fact families - addition and subtraction bonds to 20 • Check calculations • Bonds to 100 (tens) • Bonds to 100 (tens and ones) • Make the same amount - money</p> <p>In this block, we have incorporated some of the money blocks in order to provide better coverage of the steps for both year groups. Other money steps will be covered in the multiplication block. Children start by making different amounts using coins and notes before adding and subtracting money throughout the block. Year 2 focus on number bonds to 20 and 100. This will be a good opportunity for Year 3 to also recap this key learning as it will support their mental addition and subtraction throughout the rest of the block.</p>	Could refer back to 1.2 (for part-whole), 1.8 (support with tens and bonds to 100), 1.9 (TP 6 using PV for fact families) 1.7 (fact families inverse etc.) 1.14 (add and sub tens, 10 more less) 1.13 - (covers most small steps) 1.14 , 1.15 1.16 (subtraction 2 digit 2 digit, bonds 10s and 1s) 1.11 (three addends) 2.1 (TP 2 bonds to 100 from Y3)	1.18 (TP 5 add and sub multiples of 100) 1.19 1.17 (TP 3 + 4 crossing 10s and 100s) 1.20 (written addition) 1.21 (written subtraction)	Addition and Subtraction

Autumn 10 -11	Multiplication	<div> <div> <div>Multiplication</div> <div>Common Content</div> </div> <div> <div> <div> Counting in multiples Year 2 (Aut B1,B3) <ul style="list-style-type: none"> Count in 2s, 5s and 10s Count in 3s Count money - pence Count money - pounds Year 3 (Aut B1) <ul style="list-style-type: none"> Count in 50s </div> <div> Equal groups Year 2 (Aut B4) <ul style="list-style-type: none"> Recognise equal groups Make equal groups Add equal groups The Multiplication Symbol Multiplication from Pictures Year 3 (Aut B3) <ul style="list-style-type: none"> Multiplication - equal groups </div> <div> Times-tables Year 2 (Aut B4) <ul style="list-style-type: none"> 2 times-table 5 times-table 10 times-table Year 3 (Aut B3) <ul style="list-style-type: none"> Multiply by 3 Divide by 3 3 times-table Multiply by 4 Divide by 4 4 times-table Multiply by 8 Divide by 8 8 times-table </div> <div> Arrays Year 2 (Aut B4) <ul style="list-style-type: none"> Use arrays Year 3 (Spr B1) <ul style="list-style-type: none"> Comparing statements Related calculations </div> </div> <div> <div> <p>In this block, children start exploring multiplication through counting in multiples. It will support both year groups to count in 2s, 5s, 10s and 3s.</p> <p>Year 2 will focus on representing multiplication and clearly seeing the link with repeated addition. They look at the 2, 5 and 10 times-tables.</p> <p>Year 3 build on their Year 2 understanding and look at the 3, 4 and 8 times-tables as well as recapping previous learning. They move on to using Base 10 and place value counters to explore formal multiplication as they start to use the written column multiplication method.</p> </div> <div> Formal multiplication Year 3 (Spr B1) <ul style="list-style-type: none"> Multiply 2-digits by 1-digit (1) Multiply 2-digits by 1-digit (2) </div> </div> </div> </div>	2.2, 2.3 (TP1) 2.5 (arrays) 2.3 (2x table), 2.4 (10 and 5 x table)	2.6 (revisit for equal groups)	Multiplication and Division
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Spring Term (Year 2/3)

Weeks	Block	Similar Content	NCETM PD Material links		NCETM Mapping document
			Year 2	Year 3	
Spring 1-2	Division	<p>Division Common Content</p> <div style="border: 1px solid black; padding: 5px; margin: 10px;"> <p>Division</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>Year 2 (Spr B1)</p> <ul style="list-style-type: none"> • Make equal groups- sharing • Make equal groups- grouping • Divide by 2 • Divide by 5 • Divide by 10 </div> <div style="width: 45%;"> <p>Year 3 (Spr B1)</p> <ul style="list-style-type: none"> • Divide 2-digits by 1-digit (1) • Divide 2-digits by 1-digit (2) • Divide 2-digits by 1-digit (3) </div> </div> </div> <p>In Year 2, children are introduced to the division symbol (+) and use this to write number sentences. Children recall division facts from the 2,5 and 10 times tables and use their understanding of dividing by 2 to find odd and even numbers.</p> <p>In Year 3, children start to investigate different ways to divide larger 2-digit numbers by 1-digit numbers. These include using concrete representations and part-whole models with and without remainders.</p> <p>Scaling and correspondence problems are distinct to Year 3 and draw together their multiplication and division understanding.</p> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="border: 1px solid black; padding: 5px; text-align: center;"> <p>Odd & Even Year 2 (Spr B1)</p> <ul style="list-style-type: none"> • Odd and Even numbers </div> <div style="border: 1px solid black; padding: 5px; text-align: center;"> <p>Scaling Year 3 (Spr B1)</p> <ul style="list-style-type: none"> • Scaling </div> <div style="border: 1px solid black; padding: 5px; text-align: center;"> <p>Correspondence Year 3 (Spr B1)</p> <ul style="list-style-type: none"> • How many ways? </div> </div> <p>Year Specific</p>	<p>1.4 and 1.10 TP 3 if needed to refer back to y1 odd/even numbers)</p> <p>2.6 - (TP 1-3 sharing and grouping) (TP 4 divide by 2, 5, 10)</p>	<p>2.6 TP4 related 2.13 (TP 6 related facts taken from y4)</p> <p>2.19 (related facts taken from y5)</p> <p>2.17 and 2.8 (TP 5 scaling)</p> <p>2.14 (select from TP 1 & 2) 2.15 (TP 1)</p>	Multiplication and Division
Spring 3-4	Statistics	<p>Statistics Common Content</p> <div style="border: 1px solid black; padding: 5px; margin: 10px;"> <p>Pictograms</p> <p>Year 2 (Spr B1)</p> <ul style="list-style-type: none"> • Draw pictograms (1-1) • Interpret pictograms (1-1) • Draw pictograms (2, 5 and 10) • Interpret pictograms (2, 5 and 10) <p>Year 3 (Spr B3)</p> <ul style="list-style-type: none"> • Pictograms </div> <div style="border: 1px solid black; padding: 5px; margin: 10px;"> <p>Bar Charts</p> <p>Year 2 (Spr B1)</p> <ul style="list-style-type: none"> • Block diagrams <p>Year 3 (Spr B3)</p> <ul style="list-style-type: none"> • Bar charts </div> <p>In this block, teachers may decide to recap tally charts with the whole class as this skill can be used throughout this block.</p> <p>Year 2 are introduced to block diagrams, whilst Year 3 build on this understanding when drawing and interpreting bar charts.</p> <p>This block provides good opportunities to recap all four operations when reading and interpreting different sets of data.</p> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="border: 1px solid black; padding: 5px; text-align: center;"> <p>Tally Charts Year 2 (Spr B2)</p> <ul style="list-style-type: none"> • Make tally charts </div> <div style="border: 1px solid black; padding: 5px; text-align: center;"> <p>Tables Year 3 (Spr B3)</p> <ul style="list-style-type: none"> • Tables </div> </div> <p>Year Specific</p>	NA	NA	Statistics

Spring 5	Measurement Length and Height	<p>Length and Height Common Content</p> <div> <div> Measure Length Year 2 (Spr B5) <ul style="list-style-type: none"> Measure length (cm) Measure length (m) Year 3 (Spr B4) <ul style="list-style-type: none"> Measure length Equivalent lengths – m & cm Equivalent lengths – mm & cm </div> <div> Compare & Order Lengths Year 2 (Spr B5) <ul style="list-style-type: none"> Compare lengths Order lengths Year 3 (Spr B4) <ul style="list-style-type: none"> Compare lengths </div> <div> Four Operations Year 2 (Spr B5) <ul style="list-style-type: none"> Four operations with lengths Year 3 (Spr B4) <ul style="list-style-type: none"> Add lengths Subtract lengths </div> </div> <p>In this block, both year groups measure, compare, add and subtract lengths.</p> <p>Year 2 focus on measuring in centimetres as well as considering whether objects are longer or shorter than a metre. They measure longer distances in metres using different equipment.</p> <p>Year 3 begin to look at the equivalence between different measurements. Teachers may decide to introduce simple equivalences of centimetres and metres to Year 2 as this will strengthen their understanding when measuring in the different units.</p> <p>Year Specific</p>	Could ref back to 1.1	2.16 (TP 1 to introduce)	Measurement
Spring 6 -8	Geometry: Y2 Shape, position and direction Y3 Shape and perimeter	<p>Geometry Common Content</p> <div> <div> Movement & Turns Year 2 (Sum B1) <ul style="list-style-type: none"> Describing movement Describing turns Describing movement and turns Year 3 (Sum B3) <ul style="list-style-type: none"> Turns and angles Right angles in shapes Compare angles </div> <div> 2-D Shapes Year 2 (Spr B3) <ul style="list-style-type: none"> Recognise 2-D and 3-D shapes Count sides on 2-D shapes Count vertices on 2-D shapes Draw 2-D shapes Sort 2-D shapes Year 3 (Sum B3, Spr B4) <ul style="list-style-type: none"> Recognise and describe 2-D shapes Draw accurately Measure perimeter Calculate perimeter </div> <div> 3-D Shapes Year 2 (Spr B3) <ul style="list-style-type: none"> Recognise 2-D and 3-D shapes Count faces on 3-D shapes Count edges on 3-D shapes Count vertices on 3-D shapes Sort 3-D shapes Year 3 (Sum B3) <ul style="list-style-type: none"> Recognise and describe 3-D shapes Make 3-D shapes </div> </div> <div> <div> Lines Year 3 (Sum B3) <ul style="list-style-type: none"> Horizontal and vertical Parallel and perpendicular </div> <div> Symmetry Year 2 (Spr B3) <ul style="list-style-type: none"> Lines of symmetry </div> <div> Patterns Year 2 (Spr B3, Sum B1) <ul style="list-style-type: none"> Make patterns with 2-D shapes Make patterns with 3-D shapes Making patterns with shapes </div> </div> <p>Both year groups recognise and describe 2-D and 3-D shapes. This block incorporates perimeter for Year 3 when they are looking at 2-D shapes. Year 2 have separate learning on symmetry and teachers may decide to recap this with Year 3. Year 3 are introduced to more specific mathematical vocabulary to describe different types of lines.</p> <p>Year Specific</p>	NA	NA	Geometry Properties of Shape

Spring 9-12	Fractions	<div> <div> <h2>Fractions</h2> <h3>Common Content</h3> <div> <div> <h4>Unit & Non-Unit Fractions</h4> <p>Year 2 (Spr B4)</p> <ul style="list-style-type: none"> Unit fractions Non-unit fractions Count in fractions <p>Year 3 (Spr B5)</p> <ul style="list-style-type: none"> Unit and non-unit fractions Making the whole Fractions on a number line </div> <div> <h4>Fractions of an Amount</h4> <p>Year 2 (Spr B4)</p> <ul style="list-style-type: none"> Find a half Find a quarter Find a third Find three quarters <p>Year 3 (Spr B5)</p> <ul style="list-style-type: none"> Fractions of an amount (1) Fractions of an amount (2) Fractions of an amount (3) </div> <div> <h4>Equivalence</h4> <p>Year 2 (Spr B4)</p> <ul style="list-style-type: none"> Equivalence of $\frac{1}{2}$ and $\frac{3}{4}$ <p>Year 3 (Sum B1)</p> <ul style="list-style-type: none"> Equivalent fractions (1) Equivalent fractions (2) Equivalent fractions (3) </div> <div> <p>In this block, both year groups look at unit and non-unit fractions and find fractions of amounts. Year 3 move on to comparing, ordering, adding and subtracting fractions.</p> <p>Year 2 should focus on halves, quarters and thirds to ensure a good understanding.</p> </div> </div> <div> <div> <h4>Recognising Fractions</h4> <p>Year 2 (Spr B4)</p> <ul style="list-style-type: none"> Make equal parts Recognise a half Recognise a quarter Recognise a third </div> <div> <h4>Tenths</h4> <p>Year 3 (Spr B5)</p> <ul style="list-style-type: none"> Tenths Count in tenths Tenths as decimals </div> <div> <h4>Compare & Order</h4> <p>Year 3 (Sum B1)</p> <ul style="list-style-type: none"> Compare fractions Order fractions </div> <div> <h4>Add & Subtract</h4> <p>Year 3 (Sum B1)</p> <ul style="list-style-type: none"> Add fractions Subtract fractions </div> </div> <div> <h3>Year Specific</h3> </div> </div> </div>	Key Stage 1 Fractions	revisit Key Stage 1 3.1 , 3.2 3.6 (TP 3 Fractions of amounts)	Fractions
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Summer Term (Y2/3)

Weeks	Block	Similar Content	NCETM PD Material links		NCETM Mapping document
			Year 2	Year 3	
Summer 1-2	Time	<p>Time</p> <p>Common Content</p> <p>Converting Time Year 2 (Sum B3) • Hours and Days Year 3 (Sum B2) • Months and years • Hours in a day</p> <p>Telling the time Year 2 (Sum B3) • O'clock and half past • Quarter past and quarter to • Telling time to 5 minutes Year 3 (Sum B2) • Telling the time to 5 minutes • Telling the time to the minute</p> <p>Finding and comparing durations Year 2 (Sum B3) • Find durations of time • Compare durations of time Year 3 (Sum B2) • Finding the duration • Comparing durations • Start and end times • Measuring time in seconds</p> <p>Digital time Year 3 (Sum B2) • Using a.m. and p.m. • 24-hour clock</p> <p>Year Specific</p> <p>Both year groups tell the time to the nearest 5 minutes, with Year 3 moving on to tell the time to the nearest minute. Year 2 focus on converting time between days and hours. Year 3 revisit this as well as looking at how many days in each month and within a year. Both year groups measure time and compare durations. Year 3 begin to look at digital time and consider the use of a.m. and p.m.</p>	NA	NA	Measurement
Summer 3-5	Problem Solving and Consolation	<p>Year 2 During this block, Year 2 will consolidate learning and possibly carry out their end of year SATS assessments. This is dependent on the school timetable so will vary from school to school. Teachers should focus on any gaps in understanding.</p> <p>Year 3 During this block, Year 3 can recap their work on the four operations. Using assessment data and knowledge of the children, teachers can decide where there are gaps in learning and therefore where children need to focus. Children can apply the four operations into other areas including measures.</p>			

	Measurement Year 2: Mass, Capacity and Temperature Year 3: Mass and Capacity	<p>Mass, Capacity & Temperature Common Content</p> <div> <div> <p>Measure and compare mass Year 2 (Sum B4)</p> <ul style="list-style-type: none"> • Measure mass in grams • Measure mass in kilograms <p>Year 3 (Sum B4)</p> <ul style="list-style-type: none"> • Measure mass (1) • Measure mass (2) • Compare mass </div> <div> <p>Measure and compare capacity Year 2 (Sum B4)</p> <ul style="list-style-type: none"> • Millilitres • Litres <p>Year 3 (Sum B4)</p> <ul style="list-style-type: none"> • Measure capacity (1) • Measure capacity (2) • Compare capacity </div> </div> <div> <p>In this block, teachers may decide to recap the Year 2 steps looking at non-standard units and temperature with all the class as this provides a good basis for learning.</p> <p>Both year groups then measure and compare mass and capacity using standard units.</p> <p>Year 3 build on their learning by adding and subtracting mass and capacity, recapping their calculation skills.</p> </div>	NA	NA	Measurement
Summer 9-12	Consolidation and investigations	<div> <p>Year 2</p> <p>During this block, Year 2 will consolidate learning from the year. Teachers can decide where to focus with the children depending on assessment data and knowledge of the children's gaps in understanding.</p> </div> <div> <p>Year 3</p> <p>During this block, Year 3 can recap their fractions learning, followed by their learning on shape, space and measure. Teachers can decide where to focus with the children depending on assessment data and knowledge of the children's gaps in understanding.</p> </div>			

Year 4/5 (Ash Class)

This [NCETM Spine Link](#) directs you to the page including all three spines (Add and Subtract, Multiplication and Division, Fractions) and the hyperlinks on the document takes you to the relevant segment which offer: teacher guidance, PowerPoint representations, and video guidance. TP stands for 'Teaching Point' as referenced.

White Rose Overview: <https://whiterosemaths.com/resources/schemes-of-learning/primary-sols/>

NCETM Teaching for Mastery home page: <https://www.ncetm.org.uk/teaching-for-mastery/>

Autumn Term Overview (Y4/5)

Weeks	Block	Similar Content	NCETM PD Material links		NCETM Mapping document
			Year 4	Year 5	
Autumn 1-4	Number: Place value	<p>Place Value</p> <p>Common Content</p> <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="border: 1px solid black; padding: 5px; width: 15%;"> Roman Numerals Year 4 (Aut B1) • Roman Numerals to 100 Year 5 (Aut B1) • Roman Numerals to 1,000 </div> <div style="border: 1px solid black; padding: 5px; width: 15%;"> Representing numbers Year 4 (Aut B1) • 1000s, 100s, 10s and 1s • Partitioning • Number line to 10,000 Year 5 (Aut B1) • Numbers to 10,000 • Number to 100,000 • Numbers to a million </div> <div style="border: 1px solid black; padding: 5px; width: 15%;"> Counting Year 4 (Aut B1) • Count in 1,000s • 1,000 more or less • Count in 25s Year 5 (Aut B1) • Counting in 10s, 100s, 1,000s, 10,000s and 100,000s </div> <div style="border: 1px solid black; padding: 5px; width: 15%;"> Compare and order Year 4 (Aut B1) • Compare numbers • Order numbers Year 5 (Aut B1) • Compare and order numbers to 100,000 • Compare and order numbers to one million </div> <div style="border: 1px solid black; padding: 5px; width: 15%;"> Rounding Year 4 (Aut B1) • Round to the nearest 10 • Round to the nearest 100 • Round to the nearest 1,000 Year 5 (Aut B1) • Round to the nearest 10, 100 and 1,000 • Round numbers within 100,000 • Round numbers to one million </div> <div style="border: 1px solid black; padding: 5px; width: 15%;"> Negative Numbers Year 4 (Aut B1) • Negative numbers Year 5 (Aut B1) • Negative numbers </div> </div> <p style="text-align: center; margin-top: 10px;">↑ ↑ ↑ ↑ ↑ ↑</p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px; text-align: center;"> <p>Year 4 and 5 have a great deal of common content in this block.</p> <p>Year 4 work with numbers up to 10,000 while Year 5 work with numbers to one million. Year 5 may recap Year 4 content before moving onto similar ideas with larger numbers e.g. comparing and ordering and rounding.</p> </div>	1.17 (count in 25s), 1.22 (negative numbers)	1.26 (negative numbers) 1.27 (negative numbers)	Number and Place Value
Autumn 5-7	Addition and Subtraction	<p>Addition and Subtraction</p> <p>Common Content</p> <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="border: 1px solid black; padding: 5px; width: 30%;"> Addition Year 4 (Aut B2) • Add two 4-digit numbers - no exchange • Add two 4-digit numbers - one exchange • Add two 4-digit numbers - more than one exchange Year 5 (Aut B2) • Add whole numbers with more than 4-digits (column method) </div> <div style="border: 1px solid black; padding: 5px; width: 30%;"> Subtraction Year 4 (Aut B2) • Subtract two 4-digit numbers - no exchange • Subtract two 4-digit numbers - one exchange • Subtract two 4-digit numbers - more than one exchange • Efficient subtraction Year 5 (Aut B2) • Subtract whole numbers with more than 4-digits (column method) </div> <div style="border: 1px solid black; padding: 5px; width: 30%;"> Estimate and check Year 4 (Aut B2) • Estimate answers • Checking strategies Year 5 (Aut B2) • Round to estimate and approximate • Inverse operations (addition and subtraction) </div> </div> <p style="text-align: center; margin-top: 10px;">↑ ↑ ↑</p> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div style="border: 1px solid black; padding: 5px; width: 20%;"> Add and subtract multiples of 10 Year 4 (Aut B2) • Add and subtract 1s, 10s, 100s and 1000s </div> <div style="border: 1px solid black; padding: 5px; width: 50%; text-align: center;"> <p>In this block, the Year 4 steps for both addition and subtraction are broken down into steps that focus on the number of exchanges the children are dealing with. Whilst Year 5 only have one small step for both addition and subtraction, teachers may decide to recap previous learning or break down their learning in a similar way to Year 4.</p> <p>Although Year 4 focus on 4-digit numbers and Year 5 focus on 5-digit numbers, the skills that children use are similar across both year groups allowing teachers to teach the class as a whole group.</p> </div> <div style="border: 1px solid black; padding: 5px; width: 20%;"> Multi-step problems Year 5 (Aut B2) • Multi-step addition and subtraction problems </div> </div>	1.22 (TP 3 add sub 1s,10s,100s,1000s and TP5). Refer back to 1.20 and 1.21 for introducing written methods.	1.26 (negative numbers) 1.27 (negative numbers)	Addition and Subtraction

Autumn 8-10	Multiplication and Division	<p>Multiplication and Division</p> <p>Common Content</p> <div> <div> Times-tables and multiples Year 4 (Aut B4, Spr B1) <ul style="list-style-type: none"> • Multiply and divide by 6 • 6 times table and division facts • Multiply and divide by 9 • 9 times table and division facts • Multiply and divide by 7 • 7 times table and division facts • 11 and 12 times table Year 5 (Aut B4) <ul style="list-style-type: none"> • Multiples </div> <div> Factors Year 4 (Spr B1) <ul style="list-style-type: none"> • Factor pairs • Factors • Common factors </div> <div> × and ÷ by multiples of 10 Year 4 (Aut B4) <ul style="list-style-type: none"> • Multiply by 10 • Multiply by 100 • Divide by 10 • Divide by 100 Year 5 (Aut B4) <ul style="list-style-type: none"> • Multiply by 10, 100 and 1,000 • Divide by 10, 100 and 1,000 • Multiples of 10, 100 and 1,000 </div> </div> <p>Year Specific</p> <div> <div> × and ÷ by 1 and 0 Year 4 (Aut B4) <ul style="list-style-type: none"> • Multiply by 1 and 0 • Divide by 1 </div> <div> Multiply 3 numbers Year 4 (Spr B1) <ul style="list-style-type: none"> • Multiply 3 numbers </div> <div> Primes, Squares and Cubes Year 5 (Aut B4) <ul style="list-style-type: none"> • Prime numbers • Square numbers • Cube numbers </div> </div> <p>In this block, Year 4 children focus on times-tables and Year 5 children link this learning to the concept of multiples. It is important that children focus on all times-tables up to the 12 times-table to improve fluency. Practicing on a daily basis will support children with retention.</p> <p>Year 5 move onto learning about prime, square and cube numbers whilst Year 4 may focus on multiplying 3 numbers and the associative law.</p>	<p>2.6 (TP5 for $x \div 0$ and 1), 2.8 (6x and 9x), 2.9 (7x), 2.13 ($x \div 10, 100$)</p>	<p>2.21 (factors multiples prime) 2.9 (square numbers) 2.13 (multiply divide 10,100,100) 2.19 (10,100,1000) 2.20 (cube numbers) 2.18 (maybe stand alone as equivalence)</p>	Multiplication and Division
Autumn 11-12	Length, area and perimeter	<p>Length, Perimeter and Area</p> <p>Common Content</p> <div> <div> Perimeter Year 4 (Aut B3) <ul style="list-style-type: none"> • Perimeter on a grid • Perimeter of a rectangle • Perimeter of rectilinear shapes Year 5 (Aut B5) <ul style="list-style-type: none"> • Measure perimeter • Calculate perimeter </div> <div> Area Year 4 (Spr B2) <ul style="list-style-type: none"> • What is area? • Counting squares • Making shapes • Comparing area Year 5 (Aut B5) <ul style="list-style-type: none"> • Area of rectangles • Area of compound shapes • Area of irregular shapes </div> </div> <p>Year Specific</p> <div> Kilometres Year 4 (Aut B3) <ul style="list-style-type: none"> • Kilometres </div> <p>Year 4 start the block looking at kilometres, this is a good opportunity for Year 5 to recap their previous year's learning ready for the rest of the block.</p> <p>Both year groups explore measuring and calculating the perimeter of rectilinear shapes in both centimetres and metres.</p> <p>When looking at area, Year 4 focus on counting squares to calculate the area of rectilinear shapes whilst Year 5 move onto using a formula to calculate the area of rectangles. They also calculate the area of rectilinear shapes and estimate the area of irregular shapes.</p> <p>#</p>	2.16	2.16	Measurement

Spring Term (Y4/5)

Weeks	Block	Similar Content	NCETM PD Material links		NCETM Mapping document
			Year 4	Year 5	
Spring 1-3	Multiplication and division	<div style="text-align: center;"> <div style="background-color: #00728f; color: white; padding: 5px; margin-bottom: 10px;">Multiplication and Division</div> <div style="background-color: #002d4a; color: white; padding: 5px; margin-bottom: 10px;">Common Content</div> <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="border: 1px solid black; padding: 10px; width: 45%;"> <p style="text-align: center; margin: 0;">Multiplication</p> <p><small>Year 4 (Spr B1)</small></p> <ul style="list-style-type: none"> • Efficient multiplication • Written methods • Multiply 2-digits by 1-digit • Multiply 3-digits by 1-digit <p><small>Year 5 (Spr B1)</small></p> <ul style="list-style-type: none"> • Multiply 4-digits by 1-digit • Multiply 2-digits (area model) • Multiply 2-digits by 2-digits • Multiply 3-digits by 2-digits • Multiply 4-digits by 2-digits </div> <div style="border: 1px solid black; padding: 10px; width: 45%;"> <p style="text-align: center; margin: 0;">Division</p> <p><small>Year 4 (Spr B1)</small></p> <ul style="list-style-type: none"> • Divide 2-digits by 1-digit (1) • Divide 2-digits by 1-digit (2) • Divide 3-digits by 1-digit <p><small>Year 5 (Spr B1)</small></p> <ul style="list-style-type: none"> • Divide 4-digits by 1-digit • Divide with remainders </div> </div> <div style="display: flex; justify-content: space-around; align-items: center; margin: 10px 0;"> <div style="border: 1px solid black; padding: 10px; width: 45%; background-color: #e6f2ff;"> <p><small>In this block, both year groups look at more formal methods of multiplication and division. They are supported in their understanding through the use of concrete manipulatives.</small></p> <p><small>Teachers may decide to recap correspondence problems with Year 5 as well as building on Year 4's understanding of correspondence from Year 3.</small></p> </div> <div style="border: 1px solid black; padding: 10px; width: 10%; background-color: #ffe4b5; text-align: center;"> <p><small>Correspondence</small></p> <p><small>Year 4 (Spr B1)</small></p> <ul style="list-style-type: none"> • Correspondence problems </div> </div> <div style="background-color: #002d4a; color: white; padding: 5px; margin-top: 10px;">Year Specific</div> </div>	<p>2.10 (factor pairs),</p> <p>2.11 (11x, 12x & efficient mult),</p> <p>2.14 (multiplication)</p> <p>2.15 (division)</p> <p>2.12 (remainders)</p>	<p>2.23 (area model)</p> <p>2.15 (division)</p> <p>2.14 (written multiplication)</p>	Multiplication and Division

Spring 4-8	Number: Fractions	<p>Fractions</p> <p>Common Content</p> <ul style="list-style-type: none"> Equivalent Fractions <ul style="list-style-type: none"> Year 4 (Spr B3) <ul style="list-style-type: none"> Equivalent fractions (1) Equivalent fractions (2) Year 5 (Spr B2) <ul style="list-style-type: none"> Equivalent fractions Improper Fractions & Mixed Numbers <ul style="list-style-type: none"> Year 4 (Spr B3) <ul style="list-style-type: none"> Fractions greater than 1 Count in fractions Year 5 (Spr B2) <ul style="list-style-type: none"> Improper to mixed Mixed to improper Number sequences Adding Fractions <ul style="list-style-type: none"> Year 4 (Spr B3) <ul style="list-style-type: none"> Add 2 or more fractions Year 5 (Spr B2) <ul style="list-style-type: none"> Add & subtract fractions Add fractions within 1 Add 3 or more fractions Add fractions Add mixed numbers Subtracting Fractions <ul style="list-style-type: none"> Year 4 (Spr B3) <ul style="list-style-type: none"> Subtract 2 fractions Subtract from whole amounts Year 5 (Spr B2) <ul style="list-style-type: none"> Subtract fractions Subtract mixed numbers Subtract - breaking the whole Subtract 2 mixed numbers Fractions of an Amount <ul style="list-style-type: none"> Year 4 (Spr B3) <ul style="list-style-type: none"> Calculate fractions of a quantity Year 5 (Spr B2) <ul style="list-style-type: none"> Problem solving - calculate quantities Fraction of an amount Using fractions as operators <p>Year Specific</p> <ul style="list-style-type: none"> Recognising Fractions <ul style="list-style-type: none"> Year 4 (Spr B3) <ul style="list-style-type: none"> What is a fraction? Compare & Order <ul style="list-style-type: none"> Year 5 (Spr B2) <ul style="list-style-type: none"> Compare and order (<1) Compare and order (>1) Multiply Fractions <ul style="list-style-type: none"> Year 5 (Spr B2) <ul style="list-style-type: none"> Multiply unit fractions Multiply non-unit fractions Multiply mixed numbers <p>In this block, there is a lot of common content between year groups with Year 5 moving on to adding and subtracting fractions with different denominators, using their knowledge of equivalent fractions to support them. Year 5 also explore multiplying fractions before linking this to finding fractions of amounts.</p>	<p>May need to visit 3.0 (KS1 fractions) & Year 3 for intro.</p> <p>3.4 (add and sub fractions)</p> <p>3.7 (equiv - TP1 & TP2),</p> <p>3.5 (be selective - show more than one whole in fractions, count on & back past 1, add & sub)</p>	<p>revisit parts of earlier fractions to prepare for topic (3.1, 3.2, 3.3, 3.4)</p> <p>3.7 (equivalents and simplifying, compare order), 3.8 (add and subtract), 3.5 improper and mixed, 3.6 multiplying</p>	Fractions
Spring 9-12	Number: Decimals and Percentages	<p>Common Content</p> <ul style="list-style-type: none"> Decimals up to 2 d.p. <ul style="list-style-type: none"> Year 4 (Spr B4, Sum B1) <ul style="list-style-type: none"> Hundredths Hundredths as decimals Hundredths on a place value grid Write decimals Halves and quarters Year 5 (Spr B3) <ul style="list-style-type: none"> Decimals up to 2 d.p. Decimals as fractions (1) Decimals as fractions (2) Multiply & Divide by Powers of 10 <ul style="list-style-type: none"> Year 4 (Spr B4) <ul style="list-style-type: none"> Divide 1-digit by 10 Divide 2-digits by 10 Divide 1 or 2-digits by 100 Year 5 (Sum B1) <ul style="list-style-type: none"> Multiplying decimals by 10, 100 and 1,000 Dividing decimals by 10, 100 and 1,000 Adding & Subtracting Decimals Within 1 <ul style="list-style-type: none"> Year 4 (Sum B1) <ul style="list-style-type: none"> Make a whole Year 5 (Sum B1) <ul style="list-style-type: none"> Adding decimals within 1 Subtracting decimals within 1 Complements to 1 <p>Year Specific</p> <ul style="list-style-type: none"> Tenths <ul style="list-style-type: none"> Year 4 (Spr B4) <ul style="list-style-type: none"> Recognise tenths and hundredths Tenths as decimals Tenths on a place value grid Tenths on a number line Percentages <ul style="list-style-type: none"> Year 5 (Spr B3) <ul style="list-style-type: none"> Understand percentages Percentages as fractions and decimals Equivalent F.D.P Thousandths <ul style="list-style-type: none"> Year 5 (Spr B3) <ul style="list-style-type: none"> Understand thousandths Thousandths as decimals <p>Teachers may decide to start this block by recapping tenths with both year groups. They can then move on to decimals with up to 2 decimal places. Whilst Year 4 focus on converting between fractions and decimals, Year 5 are introduced to percentages. Year 5 then move on to thousandths before both year groups multiply and divide decimals by powers of 10.</p>	<p>Revisit 2.13 for $\div 10$ and 100),</p> <p>1.23 (tenths, hundredths),</p> <p>1.24 (mainly TP 1 and some of TP2)</p>	<p>continue from y4 1.23 and 1.24 (1/10, 1/100, 1/1000ths)</p> <p>1.24 (TP 3 compare and order)</p> <p>3.10 FDP (TP1,TP2,TP4, TP5)</p>	Fractions

Summer Term Overview (Y4/5)

Weeks	Block	Similar Content	NCETM PD Material links		NCETM Mapping document
			Year 4	Year 5	
Summer 1-2	Number: Y4 Decimals Y5 Money	<p>Decimals (including Money) Common Content</p> <div> <div> <p>Order and compare decimals Year 4 (Sum B1, Sum B2)</p> <ul style="list-style-type: none"> Compare decimals Order decimals Ordering money <p>Year 5 (Spr B3)</p> <ul style="list-style-type: none"> Order and compare decimals </div> <div> <p>Round decimals Year 4 (Sum B1, Sum B2)</p> <ul style="list-style-type: none"> Round decimals Estimating money Rounding decimals <p>Year 5 (Spr B3)</p> <ul style="list-style-type: none"> Rounding decimals </div> <div> <p>Calculating with decimals Year 4 (Sum B2)</p> <ul style="list-style-type: none"> Four operations Adding - same decimal places Subtracting - same decimal places Adding - different decimal places Subtracting - different decimal places Wholes and decimals <p>Year 5 (Sum B1)</p> <ul style="list-style-type: none"> Four operations Adding - same decimal places Subtracting - same decimal places Adding - different decimal places Subtracting - different decimal places Wholes and decimals </div> </div> <p>Pounds and Pence Year 4 (Sum B2)</p> <ul style="list-style-type: none"> Pounds and pence <p>In this block, Year 4 start by converting between pounds and pence. They then apply their learning in decimals in the context of money.</p> <p>Both year groups order, compare and round decimals. Year 4 look at decimals with up to 2 d.p. whilst Year 5 look at decimals with up to 3 d.p.</p> <p>Year 4 add and subtract decimals in the context of money whilst Year 5 add and subtract decimals in a series of small steps.</p> <p>Decimal sequences Year 5 (Sum B1)</p> <ul style="list-style-type: none"> Decimal sequences <p>Year Specific</p>	1.24 (TP2, TP7)	ref back to 1.23 TP 4 -6 1.24 (TP 4 & 6) 2.19 TP 2 and 2.29 (decimals by 10,100,1000)	Fractions
Summer 3	Measurement: time	<p>Time Common Content</p> <div> <div> <p>Converting Time Year 4 (Sum B3)</p> <ul style="list-style-type: none"> Hours, minutes and seconds Years, months, weeks and days Converting units of time <p>Year 5 (Sum B4)</p> <ul style="list-style-type: none"> Converting units of time </div> <div> <p>In this block, both year groups start by converting between different units of time.</p> <p>Teachers may decide to recap digital time with Year 5 as this will support their learning when looking at timetables.</p> </div> </div> <p>Digital time Year 4 (Sum B3)</p> <ul style="list-style-type: none"> Analogue to digital- 12-hour Analogue to digital- 24-hour <p>Timetables Year 5 (Sum B4)</p> <ul style="list-style-type: none"> Timetables <p>Year Specific</p>	NA	NA	Measurement

Summer 4-5	Statistics	<div> <div>Statistics</div> <div>Common Content</div> <div> <div> <div>Line graphs</div> <div>Year 4 (Sum B4)</div> <ul style="list-style-type: none"> Introducing line graphs Line graphs <div>Year 5 (Aut B3)</div> <ul style="list-style-type: none"> Read and interpret line graphs Draw line graphs Use line graphs to solve problems </div> <div> <div>Bar charts</div> <div>Year 4 (Sum B4)</div> <ul style="list-style-type: none"> Interpret charts Comparison, sum & difference </div> <div> <div>Tables</div> <div>Year 5 (Spr B3)</div> <ul style="list-style-type: none"> Read and interpret tables Two-way tables </div> </div> <div> <div>Teachers may decide to start this block by recapping bar charts with both year groups.</div> <div>Both year groups then look at line graphs. Year 4 focus on reading and interpreting line graphs whilst Year 5 move on to drawing them.</div> <div>Year 5 then read and interpret tables. Year 4 may look at aspects of this to support their other statistics work including recapping pictograms and tables from Year 3.</div> </div> </div>	NA	NA	Statistics
Summer 6-8	Geometry – Properties of Shape	<div> <div>Properties of Shape</div> <div>Common Content</div> <div> <div> <div>Measure, compare and order angles</div> <div>Year 4 (Sum B5)</div> <ul style="list-style-type: none"> Identify angles Compare and order angles <div>Year 5 (Sum B2)</div> <ul style="list-style-type: none"> Measuring angles in degrees Measuring with a protractor (1) Measuring with a protractor (2) </div> <div> <div>2-D shapes</div> <div>Year 4 (Sum B5)</div> <ul style="list-style-type: none"> Triangles Quadrilaterals <div>Year 5 (Sum B2)</div> <ul style="list-style-type: none"> Regular and irregular polygons </div> <div> <div>Draw lines and angles</div> <div>Year 5 (Sum B2)</div> <ul style="list-style-type: none"> Drawing accurately </div> <div> <div>Angles</div> <div>Year 5 (Sum B2)</div> <ul style="list-style-type: none"> Angles on a straight line Angles around a point Lengths and angles in shapes </div> <div> <div>Symmetry</div> <div>Year 4 (Sum B5)</div> <ul style="list-style-type: none"> Lines of symmetry Complete a symmetric figure </div> <div> <div>3-D shapes</div> <div>Year 5 (Sum B2)</div> <ul style="list-style-type: none"> Reasoning about 3-D shapes </div> </div> <div> <div>Year 4 focus on naming, comparing and ordering angles whilst Year 5 move on to drawing and measuring with a protractor.</div> <div>Teachers may decide to split lessons as there is a lot of differing content between the year groups to match the National Curriculum objectives.</div> <div>Teachers may cover symmetry with both classes to prepare Year 5 for their reflection work in Position and Direction.</div> </div> </div>		N/A 1.28 (some ideas in TP4)	Geometry Properties of Shape

Summer 9	Geometry – Position and Direction	<p>Position and Direction</p> <p>Common Content</p> <div> <div> <p>Position on a grid</p> <p>Year 4 (Sum B6)</p> <ul style="list-style-type: none"> Describe position Draw on a grid <p>Year 5 (Sum B3)</p> <ul style="list-style-type: none"> Position in the first quadrant </div> <div> <p>Movement on a grid</p> <p>Year 4 (Sum B6)</p> <ul style="list-style-type: none"> Move on a grid Describe movement on a grid <p>Year 5 (Sum B3)</p> <ul style="list-style-type: none"> Translation Translation with coordinates </div> <div> <p>Both year groups start by looking at position in the first quadrant and movement in the first quadrant. As this is the first time Year 4 have been introduced to coordinates they may need longer to deepen understanding.</p> <p>Year 5 look at reflection on a grid building on the Year 4 symmetry learning from the properties of shapes block.</p> </div> </div> <p>Reflection</p> <p>Year 5 (Sum B3)</p> <ul style="list-style-type: none"> Reflection Reflection with coordinates <p>Year Specific</p>	NA	NA	Position and Direction
Summer 10-12	Y4 Consolidation Y5 Converting units and volume	<p>Common Content</p> <div> <div> <p>Metric Units</p> <p>Year 4 (Aut B3)</p> <ul style="list-style-type: none"> Kilometres <p>Year 5 (Sum B4)</p> <ul style="list-style-type: none"> Kilograms and kilometres Milligrams and millimetres Metric Units </div> <div> <p>In this block, both year groups look at converting metric units. Year 4 could also look back at Year 3 conversions to ensure they are confident in converting between mm, cm and m.</p> <p>Year 5 then look at imperial units and volume, giving Year 4 time to consolidate their learning from across the year.</p> </div> </div> <p>Imperial Units</p> <p>Year 5 (Sum B4)</p> <ul style="list-style-type: none"> Imperial units <p>Volume</p> <p>Year 5 (Spr B3)</p> <ul style="list-style-type: none"> What is volume? Compare volume Estimate volume Estimate capacity <p>Year 4 Consolidation</p> <p>While Year 5 focus on volume, Year 4 can consolidate their learning from across the year filling gaps in understanding.</p> <p>Year Specific</p>	NA	Measurement: Converting Units 1.24 TP5 Measures: Volume 2.20	Measurement

Year 5/6 (Oak Class)

This [NCETM Spine Link](#) directs you to the page including all three spines (Add and Subtract, Multiplication and Division, Fractions) and the hyperlinks on the document takes you to the relevant segment which offer: teacher guidance, PowerPoint representations, and video guidance. TP stands for 'Teaching Point' as referenced.

White Rose Overview: <https://whiterosemaths.com/resources/schemes-of-learning/primary-sols/>

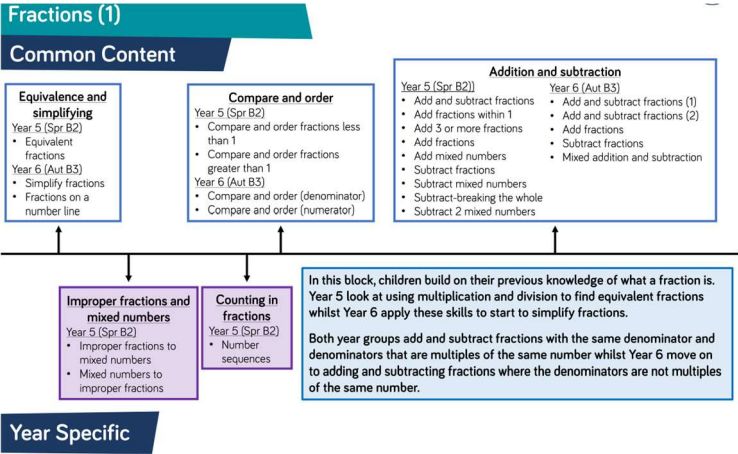
NCETM Teaching for Mastery home page: <https://www.ncetm.org.uk/teaching-for-mastery/>

Autumn Term Overview (Y5/6)

Weeks	Block	Similar Content	NCETM PD Material links		NCETM Mapping document
			Year 5	Year 6	
Autumn 1-2	Number – Place Value	<div><div>Place Value</div><div>Common Content</div><div><div><div>Representing numbers</div><div>Year 5 (Aut B1)</div><ul style="list-style-type: none">Numbers to 10,000Numbers to 100,000Numbers to a million<div>Year 6 (Aut B1)</div><ul style="list-style-type: none">Numbers to ten million</div><div><div>Compare and order</div><div>Year 5 (Aut B1)</div><ul style="list-style-type: none">Compare and order numbers to 100,000Compare and order numbers to one million<div>Year 6 (Aut B1)</div><ul style="list-style-type: none">Compare and order any number</div><div><div>Rounding</div><div>Year 5 (Aut B1)</div><ul style="list-style-type: none">Round to nearest 10, 100 and 1,000Round numbers within 100,000Round numbers to one million<div>Year 6 (Aut B1)</div><ul style="list-style-type: none">Round any number</div><div><div>Negative numbers</div><div>Year 5 (Aut B1)</div><ul style="list-style-type: none">Negative numbers<div>Year 6 (Aut B1)</div><ul style="list-style-type: none">Negative numbers</div></div><div><div>Roman Numerals</div><div>Year 5 (Aut B1)</div><ul style="list-style-type: none">Roman Numerals to 1000</div><div><div>Within this block, there are good opportunities for Year 6 to revise place value and ordering of numbers up to a million before take taking this further up to ten million. Pupils have rounded to 10, 100 and 1,000 in Year 4; Year 5 can extend this to rounding to 10,00 and 100,000 and Year 6 also to rounding to the nearest million.</div></div><div><div>Counting</div><div>Year 5 (Aut B1)</div><ul style="list-style-type: none">Counting in 10s, 100s, 1,000s, 10,000s and 100,000s</div></div> <div>Year Specific</div>	1.26 1.27 (negative numbers)	1.26PV 1.30 (mainly TP2 and TP3) 1.30 (TP 5 rounding)	Number and Place Value
Autumn 3-7	Number – Four Operations	<div><div>Four Operations (2)</div><div>Common Content</div><div><div><div>Division</div><div>Year 5 (Spr B1)</div><ul style="list-style-type: none">Divide 4-digits by 1-digitDivide with remainders<div>Year 6 (Aut B2)</div><ul style="list-style-type: none">Short divisionDivision using factorsLong division (1)Long division (2)Long division (3)Long division (4)</div><div><div>Primes, Squares and Cubes</div><div>Year 5 (Aut B4)</div><ul style="list-style-type: none">Prime numbersSquare numbersCube numbers<div>Year 6 (Aut B2)</div><ul style="list-style-type: none">PrimesSquares and Cubes</div><div><div>Estimating</div><div>Year 5 (Aut B2)</div><ul style="list-style-type: none">Round to estimate and approximate<div>Year 6 (Aut B2)</div><ul style="list-style-type: none">Mental calculations and estimation</div></div><div><div>Both year groups divide numbers using short division including remainders. Year 6 then move on to look at long division.</div><div>Drawing learning together, Year 6 look at order of operations and reasoning from known facts whilst Year 5 focus on fluency within the four operations.</div></div><div><div>Order of operations</div><div>Year 6 (Aut B2)</div><ul style="list-style-type: none">Order of Operations</div><div><div>Related facts</div><div>Year 6 (Aut B2)</div><ul style="list-style-type: none">Reason from known facts</div></div> <div>Year Specific</div>	1.30 TP 4 (revisit 1.20 and 1.21 for column) 1.30 (maybe use to secure PV and counting through boundaries using mental methods TP4 and fluency including RPS in TP6) 2.24 (division - ref back to 2.15 if necessary) 2.23 long multiplication 2.21 common factors, common multiples, primes 2.20 cubes and ref back to 2.9 for square numbers 2.22 and 2.28 (order operations) 2.25 (reason known facts)	Addition and Subtraction Multiplication and Division	

Autumn
8-12

Number – Fractions

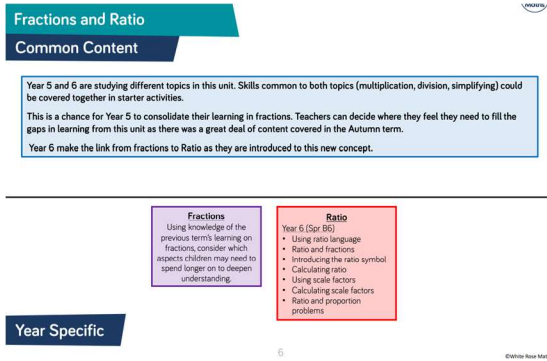


revisit parts of earlier fractions to prepare for topic ([3.1](#) [3.2](#) [3.3](#) [3.4](#) [3.7](#) (equivalents and simplifying, compare order), [3.8](#) (add and subtract), [3.5](#) improper and mixed, [3.6](#) multiplying

[3.7](#) simplify equivalent incl. number line revisit [3.5](#) mixed number improper fraction add, sub, number line [3.8](#) add and sub fractions [3.8](#) TP 5 (compare denom. and numerator) [3.9](#) Multiply, divide [3.9](#) fractions of amounts TP1 - revisit [3.6](#) TP 3

[Fractions](#)

Spring Term Overview (Y5/6)

Weeks	Block	Similar Content	NCETM PD Material links		NCETM Mapping document
			Year 5	Year 6	
Spring 1-2	Number Y5 Fractions Y6 Ratio	 <p>Fractions and Ratio Common Content</p> <p>Year 5 and 6 are studying different topics in this unit. Skills common to both topics (multiplication, division, simplifying) could be covered together in starter activities.</p> <p>This is a chance for Year 5 to consolidate their learning in fractions. Teachers can decide where they feel they need to fill the gaps in learning from this unit as there was a great deal of content covered in the Autumn term.</p> <p>Year 6 make the link from fractions to Ratio as they are introduced to this new concept.</p> <hr/> <p>Year Specific</p> <div> <div> Fractions Using knowledge of the previous term's learning on fractions, consider which aspects children may need to spend longer on to deepen understanding. </div> <div> Ratio Year 5 (Spr 6B) • Using ratio language • Ratio and fractions • Introducing the ratio symbol • Calculating ratio • Using scale factors • Calculating scale factors • Ratio and proportion problems </div> </div>	revisit parts of earlier fractions to prepare for topic 3.1 3.2 3.3 3.4 3.7 (equivalents and simplifying, compare order), 3.8 (add and subtract), 3.5 improper and mixed, 3.6 multiplying	2.27	Fractions Ratio

Spring 3-5	Number Decimals and Percentages	<p>Decimals and Percentages Common Content</p> <p>Decimals up to 3 d.p. Year 5 (Spr B3) • Decimals up to 2 d.p. • Decimals as fractions (1) • Decimals as fractions (2) • Understand thousandths • Thousandths as decimals Year 6 (Spr B1) • Three decimal places • Decimals as fractions</p> <p>Multiply & Divide by Powers of 10 Year 5 (Sum B1) • Multiplying decimals by 10, 100 and 1,000 • Dividing decimals by 10, 100 and 1,000 Year 6 (Spr B1) • Multiply by 10, 100 and 1,000 • Divide by 10, 100 and 1,000</p> <p>Percentages Year 5 (Spr B3) • Understand percentages • Percentages as fractions and decimals • Equivalent F D P Year 6 (Spr B2) • Fractions to percentages • Equivalent F D P • Order F D P</p> <p>Round, Order & Compare Year 5 (Spr B3) • Rounding decimals • Order and compare decimals</p> <p>Multiply & Divide Year 6 (Spr B1) • Multiply decimals by integers • Divide decimals by integers • Division to solve problems</p> <p>Fractions to Decimals Year 6 (Spr B1) • Fractions to decimals (1) • Fractions to decimals (2)</p> <p>Percentage of an Amount Year 6 (Spr B2) • Percentage of an amount (1) • Percentage of an amount (2) • Percentages-missing values</p> <p>Year Specific Both year groups start by looking at decimals with up to 3 decimal places. Teachers may decide to recap rounding, ordering and comparing with both year groups before moving on to multiplying and dividing. Whilst Year 6 deepen their understanding of decimals and percentages, ensure Year 5 have plenty of opportunity to link their learning back to fractions.</p>	Continue from y4 1.23 and 1.24 (1/10, 1/100, 1/000ths) 1.24 (TP 3 compare and order) 3.10 FDP (TP1,TP2,TP4, TP5)	revisit TP 1.24 for 3 D.P, revisit 2.29 - multi div 10,100,1000 2.19 mult div decimals by integers 2.28 (some support with division problems but no decimals) 3.10 fraction decimal	Fractions
Spring 6-7	Number Year 5 Decimals Year 6 Algebra	<p>Year 5 and 6 are studying different topics in this unit. Teachers may decide to recap adding and subtracting decimals with Year 6. This can then be applied throughout other topics including in their algebra block.</p> <p>Decimals Year 5 (Sum B1) • Adding decimals within 1 • Subtracting decimals within 1 • Complements to 1 • Adding decimals- crossing the whole • Adding decimals (same d.p.) • Subtracting decimals (same d.p.) • Adding decimals (different d.p.) • Subtracting decimals (different d.p.) • Adding and subtracting wholes and decimals • Decimal sequences</p> <p>Algebra Year 6 (Spr B3) • Find a rule- one step • Find a rule- two steps • Forming expressions • Substitution • Formulae • Forming equations • Simple one-step equations • Solve two-step equations • Find pairs of values • Enumerate possibilities</p> <p>Year Specific</p>	Continue from y4 1.23 and 1.24 (1/10, 1/100, 1/000ths) 1.24 (TP 3 compare and order) 3.10 FDP (TP1,TP2,TP4, TP5)	1.28 , 1.31	Fractions Algebra

Spring 8	Measurement Converting Units	<p>Converting Units Common Content</p> <div> <div> <p>Metric Measures Year 5 (Sum B4)</p> <ul style="list-style-type: none"> Kilograms and Kilometres Milligrams and millilitres Metric Units <p>Year 6 (Spr B4)</p> <ul style="list-style-type: none"> Metric measures Convert metric measures Calculate with metric measures </div> <div> <p>Imperial Measures Year 5 (Sum B4)</p> <ul style="list-style-type: none"> Imperial units <p>Year 6 (Spr B4)</p> <ul style="list-style-type: none"> Imperial measures </div> </div> <p>In this block, both year groups look at metric and imperial measures.</p> <p>Year 6 extend their learning by looking at converting between miles and kilometres.</p> <p>Teachers may decide to recap converting units of time with both year groups. Time is covered again later in the term when reading timetables in the Statistics block.</p> <div> <div> <p>Miles & Kilometres Year 6 (Spr B4)</p> <ul style="list-style-type: none"> Miles and kilometres </div> <div> <p>Time Year 5 (Sum B4)</p> <ul style="list-style-type: none"> Converting units of time </div> </div> <p>Year Specific</p>	1.24 TP5	2.29 TP2 (metric only)	Measurement
Spring 9-10	Measurement Area, perimeter and volume	<p>Perimeter, Area and Volume Common Content</p> <div> <div> <p>Perimeter Year 5 (Aut B5)</p> <ul style="list-style-type: none"> Measure perimeter Calculate perimeter <p>Year 6 (Spr B5)</p> <ul style="list-style-type: none"> Area and perimeter (focus on perimeter questions) </div> <div> <p>Area Year 5 (Aut B5)</p> <ul style="list-style-type: none"> Area of rectangles Area of compound shapes Area of irregular shapes <p>Year 6 (Spr B5)</p> <ul style="list-style-type: none"> Shapes- same area Area and perimeter (focus on area questions) </div> <div> <p>Volume Year 5 (Sum B5)</p> <ul style="list-style-type: none"> What is volume? Compare volume Estimate volume <p>Year 6 (Spr B5)</p> <ul style="list-style-type: none"> Volume- counting cubes Volume of a cuboid </div> </div> <div> <div> <p>Triangles Year 6 (Spr B5)</p> <ul style="list-style-type: none"> Area of a triangle (1) Area of a triangle (2) Area of a triangle (3) </div> <div> <p>Parallelograms Year 6 (Spr B5)</p> <ul style="list-style-type: none"> Area of a parallelogram </div> <div> <p>Capacity Year 5 (Sum B5)</p> <ul style="list-style-type: none"> Estimate Capacity </div> </div> <p>Year Specific</p> <p>Both year groups find the perimeter and area of rectilinear shapes. Year 6 then move on to finding the area of triangles and parallelograms, applying their understanding of the link with rectangles. Both year groups then calculate the volume of cuboids.</p>	revisit 2.16	2.30 area perimeter (revisit 2.16) 2.20 volume	Measurement

Spring 11-12	Statistics	<div><div>Statistics</div><div>Common Content</div><div><div>Line Graphs</div><div>Year 5 (Aut B3)<ul style="list-style-type: none">Read and interpret line graphsDraw line graphsYear 6 (Sum B3)<ul style="list-style-type: none">Use line graphs to solve problemsRead and interpret line graphsDraw line graphsUse line graphs to solve problems</div><div>Both year groups start by reading, drawing and interpreting line graphs. Teachers may decide to look at tables with both year groups, this is a good opportunity to recap time from earlier in the term. Year 5 then move on to looking at pie charts and finding the mean. At this point, teachers may decide to continue work on line graphs with Year 5 to secure their understanding.</div><div><div>Tables</div><div>Year 5 (Aut B3)<ul style="list-style-type: none">Read and interpret tablesTwo-way tablesTimetables</div><div><div>Circles</div><div>Year 6 (Sum B3)<ul style="list-style-type: none">Circles</div><div><div>Pie Charts</div><div>Year 6 (Sum B3)<ul style="list-style-type: none">Read and interpret pie chartsPie charts with percentagesDraw pie charts</div><div><div>Averages</div><div>Year 6 (Sum B3)<ul style="list-style-type: none">The mean</div></div></div></div><div>some examples in 1.28 and 1.29</div><div>1.28 TP3 (pie chart, bar chart - missing values focus) 3.10 TP6 - percentage context, 2.26 mean average</div><div>Statistics</div></div></div></div>
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Summer Term Overview (Y5/6)

Weeks	Block	Similar Content	NCETM PD Material links		NCETM Mapping document
			Year 5	Year 6	
Summer 1-2	Geometry Properties of Shape	<div><div>Properties of Shape</div><div>Common Content</div><div><div><div>Measure angles</div><div>Year 5 (Sum B2)</div><ul style="list-style-type: none">Measuring angles in degreesMeasuring with a protractor (1)Measuring with a protractor (2)<div>Year 6 (Sum B1)</div><ul style="list-style-type: none">Measure with a protractor</div><div><div>Angles</div><div>Year 5 (Sum B2)</div><ul style="list-style-type: none">Angles on a straight lineAngles around a point<div>Year 6 (Sum B1)</div><ul style="list-style-type: none">Introduce anglesCalculate anglesVertically opposite angles</div><div><div>Angles in shapes</div><div>Year 5 (Sum B2)</div><ul style="list-style-type: none">Lengths and angles in shapes<div>Year 6 (Sum B1)</div><ul style="list-style-type: none">Angles in a triangle (1)Angles in a triangle (2)Angles in a triangle (3)Angles in quadrilaterals</div><div><div>Polygons</div><div>Year 5 (Sum B2)</div><ul style="list-style-type: none">Regular and irregular polygons<div>Year 6 (Sum B1)</div><ul style="list-style-type: none">Angles in polygons</div><div><div>Draw shapes</div><div>Year 5 (Sum B2)</div><ul style="list-style-type: none">Draw lines and angles accurately<div>Year 6 (Sum B1)</div><ul style="list-style-type: none">Drawing shapes accurately</div><div><div>3-D shapes</div><div>Year 5 (Sum B2)</div><ul style="list-style-type: none">Reasoning about 3-D shapes<div>Year 6 (Sum B1)</div><ul style="list-style-type: none">Nets of 3-D shapes</div></div><div><div>There are a lot of opportunities in this block to bring the class together to consolidate shape knowledge before moving Year 6 on to ideas that are linked to their prior learning.</div><div>Both year groups measure and draw angles using a protractor before moving on to draw shapes accurately. Year 5 focus on angles on a straight line and round a point whilst Year 6 apply this understanding to vertically opposite angles and angles in triangles and quadrilaterals.</div></div><div><div>Year Specific</div></div></div>	NA	NA	Geometry Properties of Shape
Summer 3	Geometry Position and Direction	<div><div>Position and Direction</div><div>Common Content</div><div><div><div>Describe position</div><div>Year 5 (Spr B3)</div><ul style="list-style-type: none">Position in the first quadrant<div>Year 6 (Spr B1)</div><ul style="list-style-type: none">The first quadrantFour quadrants</div><div><div>Reflection</div><div>Year 5 (Sum B1)</div><ul style="list-style-type: none">ReflectionReflection with co-ordinates<div>Year 6 (Spr B1)</div><ul style="list-style-type: none">Reflections</div><div><div>Translation</div><div>Year 5 (Sum B1)</div><ul style="list-style-type: none">TranslationTranslation with co-ordinates<div>Year 6 (Spr B1)</div><ul style="list-style-type: none">Translations</div></div><div><div>Both year groups start by looking at coordinates in the first quadrant. Year 6 then move on to looking at coordinates in all 4 quadrants. Year 5 reflect and translate shapes within the first quadrant. Year 6 reflect and translate shapes across all four quadrants.</div></div><div><div>Year Specific</div></div></div>	NA	NA	Position and Direction

Summer 4-12	Consolidation and Transition projects				
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