



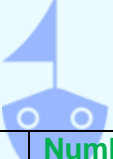
# Navigating our way through Mathematics

Mathematics – NCETM supporting White Rose White Rose resources alone

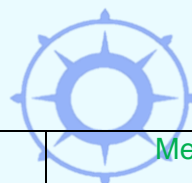


Year	Autumn 1 6 weeks 3 days	Autumn 2 7 weeks 3 days	Spring 1 6 weeks 2 days	Spring 2 4 weeks 3 days	Summer 1 6 weeks (2 bank holidays)	Summer 2 7 weeks
<b>N</b>	<ul style="list-style-type: none"> <li>- Saying number words in sequence</li> <li>- Counting with 1:1 correspondence</li> <li>- Cardinality</li> <li>- Comparing size (length and height)</li> <li>- 2D shapes</li> <li>- Matching and sorting</li> </ul>	<ul style="list-style-type: none"> <li>- Subitising to 3</li> <li>- Subitising using counters and die frames</li> <li>- Subitising using different manipulatives</li> <li>- Identifying and matching numerals to 3</li> <li>- Conservation</li> <li>- 2D shapes</li> <li>- Positional language</li> <li>- Revise</li> </ul>	<ul style="list-style-type: none"> <li>- Saying number words in sequence</li> <li>- Cardinality and conservation</li> <li>- Subitising with spatial patterns with 3 dots</li> <li>- Identifying and matching numerals to 5</li> <li>- Comparing size, mass and capacity</li> <li>- Colours and patterns</li> </ul>	<ul style="list-style-type: none"> <li>- Comparing 2 sets (more/fewer than)</li> <li>- Comparing and sorting 2 sets (more/fewer than)</li> <li>- Comparing sets and identifying equal amounts</li> <li>- Recording number in different ways</li> <li>- Sequencing events</li> </ul>	<ul style="list-style-type: none"> <li>- Conceptual subitising</li> <li>- Partitioning quantities</li> <li>- Comparing quantities (more/fewer than), including staircase pattern (one more)</li> <li>- Colours and patterns</li> </ul>	<ul style="list-style-type: none"> <li>- Identify and continue AB patterns</li> <li>- Identify and continue AB patterns that vary in size, orientation, etc.</li> <li>- Create AB patterns and discuss properties</li> <li>- Positional language</li> <li>- Revise</li> </ul>

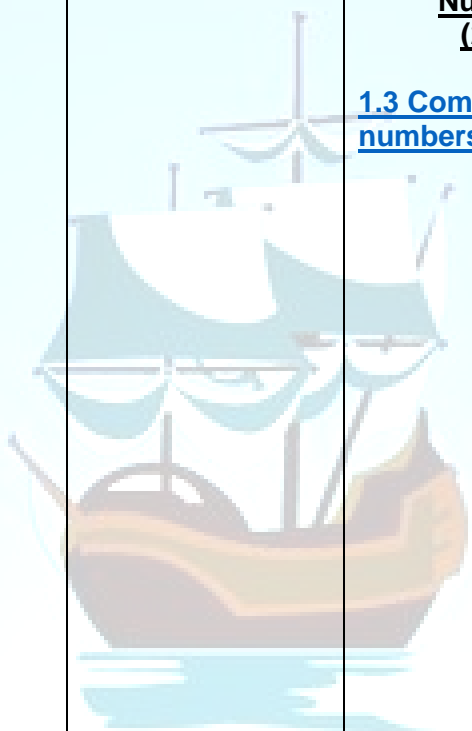


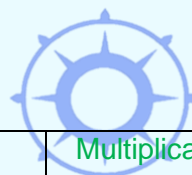


<p><b>R</b></p>	<p><b>Number and Numerical patterns (NCETM)</b></p> <ul style="list-style-type: none"> <li>- Subitising to 3</li> <li>- Counting sequence to 5</li> <li>- Composition to 3</li> <li>- Subitising to 4</li> <li>- Comparing two sets (more/fewer than)</li> </ul> <p><b>Shape, Space and Measure (WRM)</b></p> <ul style="list-style-type: none"> <li>- Matching and sorting similar attributes</li> <li>- Matching and sorting in different ways</li> <li>- Identify, copy and continue AB patterns</li> <li>- Create AB patterns</li> <li>- Night &amp; Day and other routines</li> </ul>	<p><b>Number and Numerical patterns (NCETM)</b></p> <ul style="list-style-type: none"> <li>- Counting and representing to 5</li> <li>- Comparing groups of 3, identifying equal/too many/too few</li> <li>- Identify 'parts' making a 'whole'</li> <li>- Composing/decomposing sets to 5</li> <li>- Counting and cardinality to 5</li> </ul> <p><b>Shape, Space and Measure (WRM)</b></p> <ul style="list-style-type: none"> <li>- Compare and order by size</li> <li>- Compare and order by mass</li> <li>- Compare and order by capacity</li> <li>- Positional language</li> <li>- Circles</li> <li>- Triangles</li> <li>- Squares and rectangles</li> </ul>	<p><b>Number and Numerical patterns (NCETM)</b></p> <ul style="list-style-type: none"> <li>- Subitising arrangements to 6</li> <li>- Order to 5</li> <li>- Partitioning 5 into different parts</li> <li>- Representations to 7</li> <li>- Comparing quantities (more/fewer than and equal)</li> </ul> <p><b>Shape, Space and Measure (WRM)</b></p> <ul style="list-style-type: none"> <li>- Compare and order by size</li> <li>- Compare and order by mass</li> <li>- Compare and order by capacity</li> <li>- Time order and sequencing</li> <li>- 3D shapes</li> <li>- Properties of shapes</li> </ul>	<p><b>Number and Numerical patterns (NCETM)</b></p> <ul style="list-style-type: none"> <li>- Pattern of the counting system to 10 (one more/one less)</li> <li>- Order and compare numbers to 10</li> <li>- Conceptual subitising to 7</li> <li>- Double patterns</li> <li>- Even numbers as two equal parts</li> </ul> <p><b>Shape, Space and Measure (WRM)</b></p> <ul style="list-style-type: none"> <li>- Identifying complex patterns</li> <li>- Copy and continue complex patterns</li> <li>- Complex patterns in the environment</li> <li>- Creating complex patterns</li> </ul>	<p><b>Number and Numerical patterns (NCETM)</b></p> <ul style="list-style-type: none"> <li>- Counting strategies for larger sets, sets that cannot be seen and moved</li> <li>- Subitising double patterns to 10</li> <li>- Composition of 5</li> <li>- Composition of 10</li> <li>- Positioning numbers on a number track</li> </ul> <p><b>Shape, Space and Measure (WRM)</b></p> <ul style="list-style-type: none"> <li>- Selecting shapes for a purpose</li> <li>- Rotating and manipulating shapes</li> <li>- Shape arrangements and positional language</li> <li>- Identifying 2D shapes within 3D shapes</li> <li>- Composing and decomposing shapes</li> </ul>	<p><b>Number and Numerical patterns (NCETM)</b></p> <ul style="list-style-type: none"> <li>- Conceptual subitising to 10</li> <li>- Automatic recall of number bonds to 5</li> <li>- Number bonds to 10</li> <li>- Comparing quantities (more than/fewer than) and magnitude</li> <li>- Patterns in number</li> <li>- Counting and cardinality to 20</li> </ul> <p><b>Shape, Space and Measure (WRM)</b></p> <ul style="list-style-type: none"> <li>- Units of repeat and pattern rules</li> <li>- Patterns and relationship between numbers and shapes</li> <li>- Spatial awareness and viewpoint</li> <li>- Giving instructions to build simple models</li> <li>- Representing maps using models</li> <li>- Creating maps of familiar places</li> <li>- Creating maps of story situations</li> </ul>
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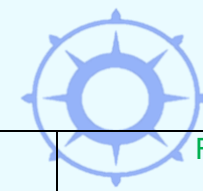
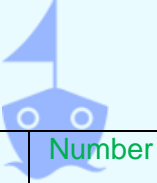


<p>1</p>	<p>Addition &amp; subtraction</p> <p><b><u>Counting within 100 (7 weeks)</u></b></p> <p><b><u>1.9 Composition of numbers: 20-100</u></b></p>	<p>Number &amp; Place Value</p> <p><b><u>Comparison of quantities and part-whole relationships (3 weeks)</u></b></p> <p><b><u>1.1 Comparison of quantities and measures</u></b></p> <p><b><u>1.2 Introducing 'whole' and 'parts': part-part-whole</u></b></p> <p>Number &amp; Place Value</p> <p><b><u>Numbers 0-5 (2 weeks)</u></b></p> <p><b><u>1.3 Composition of numbers: 0-5</u></b></p>	<p>Shape</p> <p><b><u>Recognise, compose, decompose and manipulate 2D and 3D shapes (3 weeks)</u></b></p> <p><b><u>Ready to progress 1G-2 and 1G-1</u></b></p> <p>Number &amp; Place Value</p> <p><b><u>Number 0-10 (3 weeks)</u></b></p> <p><b><u>1.4 Composition of numbers: 6 to 10</u></b></p>	<p>Addition &amp; subtraction</p> <p><b><u>Additive Structures (4 weeks)</u></b></p> <p><b><u>1.5 Additive structures: introduction to aggregation and partitioning</u></b></p> <p><b><u>1.6 Additive structures: introduction to augmentation and reduction</u></b></p> <p>Addition &amp; subtraction</p> <p><b><u>Addition and subtraction facts within 10 (2 weeks)</u></b></p> <p><b><u>1.7 Addition and subtraction: strategies within 10</u></b></p>	<p>Addition &amp; subtraction</p> <p><b><u>Addition and subtraction facts within 10 (1 week)</u></b></p> <p><b><u>1.7 Addition and subtraction: strategies within 10</u></b></p> <p>Number &amp; Place Value</p> <p><b><u>Numbers 0-20 (4 weeks)</u></b></p> <p><b><u>1:10 Composition of numbers: 11-19</u></b></p> <p>Geometry</p> <p><b><u>Position and Direction (1 week)</u></b></p> <p><b><u>White rose maths</u></b></p>	<p>Measurement</p> <p><b><u>Unitising and coin recognition (5 weeks)</u></b></p> <p><b><u>2.1 Counting, unitising and coins</u></b></p> <p>Measurement</p> <p><b><u>Time (2 weeks)</u></b></p> <p><b><u>White rose maths</u></b></p>
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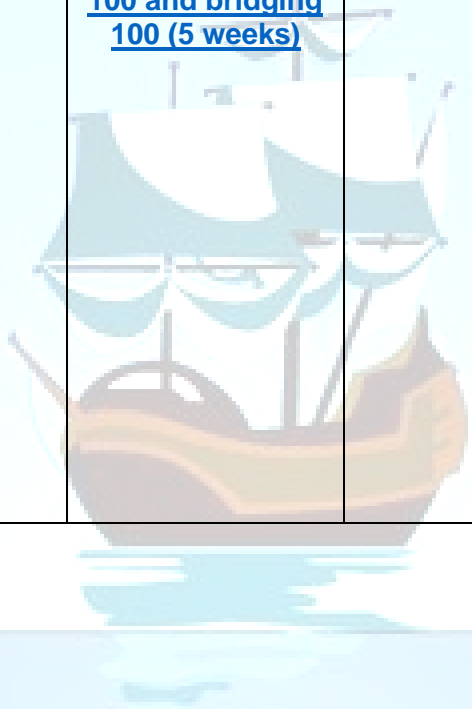


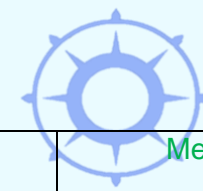
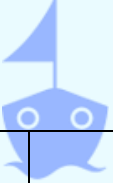


<p>2</p>	<p>Number &amp; Place value</p> <p><b>Numbers 10-100 (4weeks)</b></p> <p><u>1.8 Composition of numbers: multiples of 10 up to 100</u></p> <p><u>1.9 Composition of numbers: 20-100</u></p> <p>Addition and Subtraction</p> <p><b>Calculations within 20 (2 weeks)</b></p> <p><u>1.11 Addition and subtraction: bridging 10</u></p>	<p>Addition and Subtraction</p> <p><b>Fluently add and subtract within 10 (1 week- Recap from year 1)</b></p> <p><u>Ready to progress 2NF-1</u></p> <p><b>Addition and subtraction of 2 digit numbers (2 weeks)</b></p> <p><u>1.13 Calculation 2 digit +/- single digit</u></p> <p><u>1.14 Calculation 2 digit +/- tens</u></p> <p>Multiplication and Division</p> <p><b>Introduction to multiplication (2 weeks)</b></p> <p><u>2.2 Structures: multiplication representing equal groups</u></p>	<p>Multiplication and Division</p> <p><b>Introduction to multiplication contnd (5 weeks)</b></p> <p><u>2.3 Times tables: groups of 2 and commutativity (part 1)</u></p> <p><u>2.4 Times tables: groups of 10 and of 5, and factors of 0 and 1</u></p> <p><u>2.5 Commutativity (part 2), doubling and halving</u></p> <p>Multiplication and Division</p> <p><b>Introduction to Division structures (2 weeks)</b></p> <p><u>2.6 Structures: quotitive and partitive division</u></p>	<p>Shape</p> <p><b>Shape (2 weeks)</b></p> <p><b>Ready to progress 2G-1</b></p> <p>Addition and Subtraction</p> <p><b>Addition and subtraction of 2 digit numbers (3 weeks)</b></p> <p><u>1.15 Addition: two-digit and two-digit numbers</u></p> <p><u>1.16 Subtraction: two-digit and two-digit numbers</u></p>	<p>Measurement</p> <p><b>Money (1 week)</b></p> <p><u>White rose maths</u></p> <p>Fractions</p> <p><b>Fractions (2 weeks)</b></p> <p><u>3.0 Guidance on the teaching of fractions in Key Stage 1</u></p> <p>Measurement Time (1 week)</p> <p><u>White rose maths</u></p> <p>Measurement</p> <p><b>Position and direction (1 week)</b></p> <p><u>White rose maths</u></p>	<p>Multiplication and Division</p> <p><b>Multiplication and Division (3 weeks)</b></p> <p><u>2.5 Commutativity (part 2), doubling and halving</u></p> <p><u>2.6 Structures: quotitive and partitive division</u></p> <p>Measurement</p> <p><b>Capacity, Volume and Mass (2 weeks)</b></p> <p><u>White rose maths</u></p>
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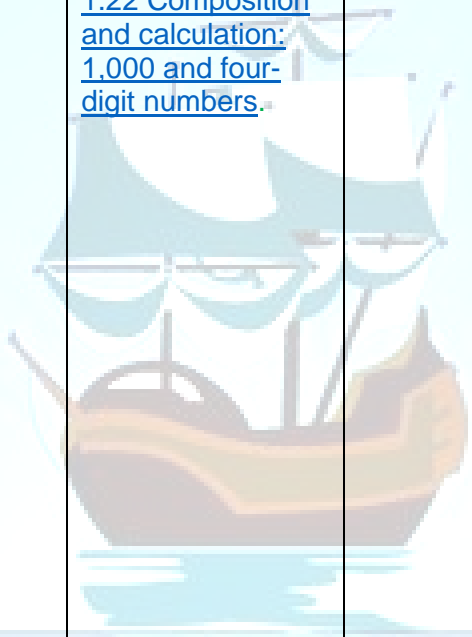


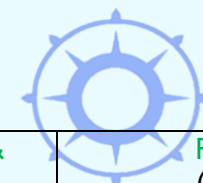
<p>3</p>	<p>Addition &amp; subtraction</p> <p><b><u>Adding and subtracting across 10</u></b></p> <p><u>1.11 Addition and subtraction: bridging 10 (2 weeks)</u></p> <p>Number and Place Value</p> <p><b><u>Numbers 1000</u></b></p> <p><u>1.17 Composition and Calculation: 100 and bridging 100 (5 weeks)</u></p>	<p>Number and Place Value</p> <p><b><u>Numbers 1000</u></b></p> <p><u>1.18 Composition and calculation: three-digit numbers (4 weeks)</u></p> <p>Addition and Subtraction</p> <p><b><u>Column Addition Pre-teach</u></b></p> <p><u>1 week</u></p>	<p>Geometry</p> <p><b><u>Right Angles Ready to progress 3G-1</u></b></p> <p>(2 weeks)</p> <p>Addition and Subtraction</p> <p><b><u>Manipulating the additive relationship and securing mental calculation</u></b></p> <p><u>1.19 Securing Mental Strategies: calculation up to 999 (4 weeks)</u></p>	<p>Addition and Subtraction</p> <p><b><u>Column Addition Revisit</u></b></p> <p><u>1.20 Algorithms: column addition (2 weeks)</u></p> <p>Multiplication and Division</p> <p><b><u>2,4,8 times tables</u></b></p> <p><u>2.7 Times tables: 2, 4 and 8 and the relationship between them (3 weeks)</u></p> <p>Addition and Subtraction</p> <p><b><u>Column Method</u></b></p> <p><u>1.21 Algorithms: column subtraction (1 week)</u></p>	<p>Fractions</p> <p><b><u>Unit Fractions</u></b></p> <p><u>3.1 Preparing for fractions: the part whole relationship</u></p> <p><u>3.2 Unit fractions: identifying, representing and comparing (5 weeks)</u></p>	<p>Fractions</p> <p><b><u>Non-unit fractions (3 weeks)</u></b></p> <p><u>3.3 Non-unit fractions: identifying, representing and comparing</u></p> <p><u>3.4 Adding and subtracting within one whole</u></p> <p>Shape</p> <p><b><u>Parallel and perpendicular sides in polygons (2 weeks)</u></b></p> <p>Ready to progress 3G-2</p> <p>Measurement</p> <p><b><u>Time</u></b></p> <p><b>Whiterose maths (1 week)</b></p>
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<p>4</p>	<p><b>Addition &amp; subtraction</b></p> <p><b><u>Review of column addition and subtraction (3 weeks)</u></b></p> <p><a href="#">1.20 Algorithms: column addition</a></p> <p><a href="#">1.21 Algorithms: column subtraction</a></p> <p>Number &amp; Place Value</p> <p><b><u>Numbers to 10,000 (5 weeks)</u></b></p> <p><a href="#">1.22 Composition and calculation: 1,000 and four-digit numbers.</a></p>	<p><b>Shape</b></p> <p><b><u>Perimeter (2 weeks)</u></b></p> <p><a href="#">2.16 Multiplicative contexts: area and perimeter 1</a></p> <p>Multiplication and Division</p> <p><b><u>3,6,9 times table (4 weeks)</u></b></p> <p><a href="#">2.8 Times Tables: 3, 6 and 9, and the relationship between them</a></p>	<p><b>Multiplication and Division</b></p> <p><b><u>7 times tables and patterns (2 weeks)</u></b></p> <p><a href="#">2.9 Times Tables: 7 and patterns within / across times tables</a></p> <p>Multiplication and Division</p> <p><b><u>Understanding and manipulating multiplicative relationships (5 weeks)</u></b></p> <p><a href="#">2.10 Connecting multiplication and division, and the distributive law</a></p> <p><a href="#">2.13 Calculation: multiplying and dividing by 10 and 100</a></p>	<p><b>Geometry</b></p> <p><b><u>Coordinates (2 weeks)</u></b></p> <p><a href="#">Ready to progress criteria 4G-1</a></p> <p>Fractions</p> <p><b><u>Review of Fractions (1 week)</u></b></p> <p><a href="#">3.1 Preparing for fractions: the part whole relationship</a></p> <p><a href="#">3.5 Working across one whole: improper fractions and mixed numbers</a></p> <p>Fractions</p> <p><b><u>Fractions greater than 1 (1 week)</u></b></p> <p><a href="#">3.5 Working across one whole: improper fractions and mixed numbers</a></p>	<p><b>Fractions</b></p> <p><b><u>Fractions greater than 1 CONTND (4 weeks)</u></b></p> <p><a href="#">3.5 Working across one whole: improper fractions and mixed numbers</a></p> <p>Shape</p> <p><b><u>Symmetry in 2D shapes (2 weeks)</u></b></p> <p><a href="#">Ready to progress 4G-3</a></p>	<p><b>Measurement</b></p> <p><b><u>Time (1 week)</u></b></p> <p><a href="#">White Rose</a></p> <p><a href="https://www.ncetm.org.uk/classroom-resources/cp-year-4-unit-11-time/">https://www.ncetm.org.uk/classroom-resources/cp-year-4-unit-11-time/</a></p> <p>Multiplication and Division</p> <p><b><u>Division with Remainders (2 weeks)</u></b></p> <p><a href="#">2.12 Division with remainders</a></p>
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<p>5</p>	<p>Fractions</p> <p><b>Decimal fractions (5 weeks)</b></p> <p><a href="#">1.23 Composition and calculation: tenths</a></p> <p><a href="#">1.24 Composition and calculation: hundredths and thousandths</a></p> <p>Addition and Subtraction</p> <p>(2 weeks)</p> <p><a href="#">1.25 Addition and subtraction: money</a></p>	<p>Number Place Value (2 weeks)</p> <p><a href="#">1.27 Negative numbers: counting, comparing and calculating</a></p> <p>Multiplication &amp; Division</p> <p>(5 weeks)</p> <p><a href="#">2.14 Multiplication: partitioning leading to short multiplication</a></p>	<p>Multiplication &amp; Division (1 week)</p> <p><a href="#">2.14 Multiplication: partitioning leading to short multiplication</a></p> <p>Shape</p> <p>(5 weeks)</p> <p><a href="#">2.16 Multiplicative contexts: area and perimeter 1</a></p> <p><a href="#">2.17 Structures: using measures and comparison to understand scaling</a></p>	<p>Number &amp; Place Value</p> <p>(3weeks)</p> <p><a href="#">2.29 Decimal place value knowledge, multiplication and division</a></p> <p><a href="#">2.19 Calculation: <math>\times/\div</math> decimal fractions by whole numbers</a></p> <p>Multiplication &amp; Division</p> <p>(2weeks)</p> <p><a href="#">2.20 Multiplication with three factors and volume</a></p>	<p>Multiplication &amp; Division</p> <p>(2 weeks)</p> <p><a href="#">2.21 Factors, multiples, prime numbers and composite numbers</a></p> <p>Fractions (4 weeks)</p> <p><a href="#">3.6 Multiplying whole numbers and fractions</a></p>	<p>Fractions (3weeks)</p> <p><a href="#">3.7 Finding equivalent fractions and simplifying fractions</a></p> <p><a href="#">3.10 Linking fractions, decimals and percentages</a></p> <p>Number and place Value</p> <p>2 weeks</p> <p><a href="#">5NPV-5 Page 229</a></p> <p>Angles (3 weeks)</p> <p>Ready to progress 5G1</p>
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<p>6</p>	<p>Addition and Subtraction/ Division and multiplication</p> <p><b>Calculating using knowledge of structures (6 weeks)</b></p> <p><a href="#">1.28 Common structures and the part-part-whole relationship</a></p> <p><a href="#">1.29 Using equivalence and the compensation category to calculate</a></p> <p><b>Multiples of 1000 (1 week)</b></p> <p><a href="#">1.26 Multiples of 1,000 up to 1,000,000</a></p>	<p>Number and Place Value</p> <p><b>Multiples of 1000 (1week)</b></p> <p><a href="#">1.26 Multiples of 1,000 up to 1,000,000</a></p> <p><b>Numbers up to 10,000,000 (4weeks)</b></p> <p><a href="#">1.30 Numbers up to 10,000,000</a></p> <p>Geometry</p> <p><b>Draw, compose and decompose shapes (2 weeks)</b></p> <p><a href="#">2.30 Multiplicative contexts: area and perimeter 2</a></p>	<p>Addition and Subtraction/ Division and multiplication/ other</p> <p><b>Multiplication and division (4 weeks)</b></p> <p><a href="#">2.18 Using equivalence to calculate</a></p> <p><a href="#">2.23 Multiplication strategies for larger numbers and long multiplication</a></p> <p><a href="#">2.24 Division: dividing by two-digit numbers</a></p> <p><a href="#">2.25 Using compensation to calculate</a></p> <p>Other</p> <p><b>Area, perimeter, position and direction (2 weeks)</b></p> <p><a href="#">2.30 Multiplicative contexts: area and perimeter 2</a></p>	<p>Fractions</p> <p><b>Fractions and percentages (6 weeks)</b></p> <p><a href="#">3.7 Finding equivalent fractions and simplifying fractions</a></p> <p><a href="#">3.8 Common denomination: more adding and subtracting</a></p> <p><a href="#">3.9 Multiplying fractions and dividing fractions by a whole number</a></p> <p><a href="#">3.10 Linking fractions, decimals and percentages</a></p>	<p>Statistics (Week 1)</p> <p>KS2 Assessments</p> <p><b>Ratio and proportion (2 weeks)</b></p> <p><a href="#">2.27 Scale factors, ratio and proportional reasoning</a></p>	<p><b>Calculating using knowledge of structures (1 week)</b></p> <p><a href="#">1.29 Using equivalence and the compensation property to calculate</a></p> <p><b>Solving problems with two unknowns (2 weeks)</b></p> <p><a href="#">1.31 Problems with two unknowns</a></p> <p><b>Order of operations (1 week)</b></p> <p><a href="#">2.22 Combining multiplication with addition and subtraction</a></p> <p><a href="#">2.28 Combining division with addition and subtraction</a></p> <p><b>Mean average (1 week)</b></p> <p><a href="#">2.26 Mean average and equal shares</a></p>
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