



Medium-term Plans

These medium-term plans give a complete at-a-glance overview of the structure of *Rising Stars Mathematics* for Year 5, which is a key resource we use at Heron Hill. We also use resources from *White Rose* and *Ready to Progress* for curriculum prioritization to address gaps in learning as a result of the pandemic. Teachers adapt their planning from these medium-term plans, often making the activity practical and more accessible for learners or adapted to be done outdoors.

These plans detail the order of teaching, key resources and a suggestion of what could be covered each week. The term 'week' is used flexibly. Depending on the class, coverage may take a little less or a little more than a week. If teachers are confident that children have mastered a concept, then it is acceptable to move on quickly, just as it is important to allow children to spend longer on a topic if necessary to ensure they have fully mastered it before moving on.

Throughout the medium-term plans, the 'And finally' review pages are included at the end of each unit. However, it can be appropriate to use these pages throughout the unit by running the tasks after the relevant concepts.

It is important to remember that the length of a half-term will vary. If the half-term is short, teachers can choose to move a unit into the next term. If a half-term is long, teachers can choose to move a unit back into the preceding term. It is best practice to avoid splitting units between two half-terms, unless the content in each concept is very distinct.

Autumn 1

Rising Stars Mathematics							National Curriculum	
Week	Strand	Weekly summary	Textbook topics and page numbers	Teacher's Guide	Practice Book	Interactives and videos	Domain	Statement
1	Number Sense	Order, compare and round numbers to 1 000 000.	1 <i>Numbers in real life</i> , p.10–11 1a <i>Distances</i> , p.12–13	p.24–27 Homework: <i>Comparing and rounding 6-digit numbers</i> and <i>Holiday distances</i> , p.192	p.4–6	Animation: <i>Comparing 4-digit numbers</i> Interactive: <i>Place value</i> CPD: <i>Number Sense - Introduction, The Learning Journey, Key Ideas 1, Key Ideas 2, Next Steps</i>	Number - number and place value Measurement	<ul style="list-style-type: none"> • read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit • count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000 • round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000 • convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre) • solve problems involving converting between units of time



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2	Number Sense	Convert between units of measure.	1b <i>Converting units of measure</i> , p.14–15	p.28–29 Homework: <i>Multiplying and dividing by 10, 100 and 1000</i> and <i>Time conversions</i> , p.193	p.7–9		Number - number and place value Measurement	<ul style="list-style-type: none"> • solve number problems and practical problems that involve all of the above • convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre) • solve problems involving converting between units of time
3	Number Sense	Read, write, compare, round and order fractions.	1c <i>Fraction and decimal equivalences</i> , p.16–17 <i>Gridlock!</i> , p.20–21	p.30–31, p.34–35 Homework: <i>Matching decimals and fractions</i> and <i>Decimal masses</i> , p.194	p.10–12	Animation: <i>Fraction and decimal equivalents</i> Interactive: <i>Fraction and decimal wall</i>	Number - fractions (including decimals and percentages)	<ul style="list-style-type: none"> • read and write decimal numbers as fractions [for example, $0.71 = 71/100$] • recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents
4	Number Sense	Read, write and order decimals involving up to two decimal places.	1d <i>Reading, writing and ordering decimal numbers</i> , p.18–19 <i>Gridlock!</i> , p.20–21 <i>And finally ...</i> , p.22–23	p.32–37 Homework: <i>Comparing and rounding decimals</i> and <i>Capacity</i> , p.195	p.13–15	CPD: <i>Number Sense - Next Steps</i>	Number - fractions (including decimals and percentages)	<ul style="list-style-type: none"> • round decimals with 2 decimal places to the nearest whole number and to 1 decimal place • read, write, order and compare numbers with up to 3 decimal places • solve problems involving number up to 3 decimal places



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5	Additive Reasoning	Use mental strategies to perform addition and subtraction calculations involving four or more digits.	2 Methods for addition and subtraction, p.24–25 2a Mental calculation strategies, p.26–27 Follow the instructions!, p.20–21	p.38–41, p.44–45 Homework: Addition routes and Population differences, p.196	p.16–18	Interactive: Numerals and symbols CPD: Additive Reasoning - Introduction, The Learning Journey, Key Ideas 1, Next Steps	Number - addition and subtraction Measurement	<ul style="list-style-type: none"> • add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction) • add and subtract numbers mentally with increasingly large numbers • use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy • solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why • use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation including scaling
6	Additive Reasoning	Use formal written methods to perform addition and subtraction calculations involving four or more digits.	2b Written methods for addition and subtraction, p.28–29 And finally ..., p.32–33	p.42–43, p.46–47 Homework: Subtraction reversed and A new fence, p.197	p.19–21	Interactive: Numerals and symbols CPD: Additive Reasoning - Key Ideas 2, Next Steps	Number - addition and subtraction Measurement	<ul style="list-style-type: none"> • add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction) • solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why • use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling



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7	Multiplicative Reasoning	Identify square and cube numbers, multiples and factors.	3 Methods for multiplication and division, p.34–35 3a <i>Exploring multiples, factors, squares and cubes</i> , p.36–37 <i>Head for the stars!</i> , p.42–43 Game 1	p.48–51, p.56–57 Homework: <i>Square and cube numbers and Multiples and factors</i> , p.198	p.22–24	Animation: <i>Common multiples</i> Interactive: <i>100 squares</i> CPD: <i>Multiplicative Reasoning - Introduction, The Learning Journey, Key Ideas 1, Key Ideas 2, Next Steps</i>	Number - multiplication and division Measurement	<ul style="list-style-type: none"> • identify multiples and factors, including finding all factor pairs of a number, and common factors of 2 numbers • use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling
Rising Stars Mathematics Half-Termly Test Year 5 Autumn 1								



Medium-term Plans

Autumn 2

Rising Stars Mathematics							National Curriculum	
Week	Strand	Weekly summary	Textbook topics and page numbers	Teacher's Guide	Practice Book	Interactives and videos	Domain	Statement
8	Multiplicative Reasoning	Use mental strategies to perform multiplication and division calculations.	3b <i>Mental calculation strategies for multiplication and division</i> , p.38–39 <i>Head for the stars!</i> , p.42–43 Game 2	p.52–53, p.56–57 Homework: <i>Multiplying by 5 and 20</i> and <i>Multiplication facts</i> , p.199	p.25–27	CPD: <i>Multiplicative Reasoning - Key Ideas 1, Next Steps</i>	Number - multiplication and division Measurement	<ul style="list-style-type: none"> multiply and divide numbers mentally, drawing upon known facts solve problems involving multiplication and division, including using their knowledge of factors and multiples use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling
9	Multiplicative Reasoning	Use formal written methods to perform calculations involving multiplying or dividing by one-digit numbers.	3c <i>Written methods for multiplication and division</i> , p.40–41 <i>Head for the stars!</i> , p.42–43 <i>And finally ...</i> , p.44–45	p.54–59 Homework: <i>Multiplication arrays</i> and <i>Division practice</i> , p.200	p.28–31	Interactive: <i>Numerals and symbols</i> CPD: <i>Multiplicative Reasoning - Next Steps</i>	Number - multiplication and division Measurement	<ul style="list-style-type: none"> multiply numbers up to 4 digits by a one-digit number using a formal written method divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling



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10	Geometric Reasoning	Identify regular and irregular 2-D shapes.	4 <i>Triangles – and other polygons</i> , p.46–47 4a <i>Regular or irregular?</i> , p.48–49 <i>Making polygons!</i> , p.54–55	p.60–63, p.68–69 Homework: <i>Parallel pairs</i> and <i>Making shapes</i> , p.201	p.32–34	Animation: <i>Regular and irregular 2-D shapes</i> Animation: <i>Identifying angles</i> Interactive: <i>2-D shapes</i> Interactive: <i>Geometry instruments</i> CPD: <i>Geometric Reasoning - Introduction, Learning Journey, Key Ideas 1, Key Ideas 2, Next Steps</i>	Geometry - properties of shapes	<ul style="list-style-type: none"> • distinguish between regular and irregular polygons based on reasoning about equal sides and angles • know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles • identify angles at a point on a straight line and $\frac{1}{2}$ a turn (total 180°)
11	Geometric Reasoning	Measure and calculate angles. Draw angles and triangles using a ruler and protractor.	4b <i>Angles</i> , p.50–51 4c <i>Drawing angles</i> , p.52–53 <i>And finally ...</i> , p.56–57	p.64–67, p.70–71 Homework: <i>Unknown angles</i> and <i>Making triangles</i> , p.202, and <i>Isosceles stretch</i> and <i>Split the grid</i> , p.203	p.35–39	Animation: <i>Regular and irregular 2-D shapes</i> Animation: <i>Identifying angles</i> Interactive: <i>2-D shapes</i> Interactive: <i>Geometry instruments</i> Animation: <i>Properties of triangles</i> Animation: <i>Straight lines and triangles</i> Interactive: <i>Geometry instruments</i> CPD: <i>Geometric Reasoning - Next Steps</i>	Geometry - properties of shapes	<ul style="list-style-type: none"> • draw given angles, and measure them in degrees ($^\circ$) • distinguish between regular and irregular polygons based on reasoning about equal sides and angles



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12	Number Sense	Read, write, order and compare numbers to at least 1 000 000.	5 <i>Different types of number</i> , p.58–59 5a <i>Place holders and comparing</i> , p.60–61	p.72–75 Homework: <i>Target number and Mass comparisons</i> , p.204	p.40–41	Animation: <i>Comparing 4-digit numbers</i> Interactive: <i>Place value</i> CPD: <i>Number Sense - Key Ideas 1, Next Steps</i>	Number - number and place value Measurement	<ul style="list-style-type: none"> • read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit • round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000 • read Roman numerals to 1000 (M) and recognise years written in Roman numerals • use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling
13	Number Sense	Interpret negative numbers in context.	5b <i>Positive and negative numbers</i> , p.62–63	p.76–77 Homework: <i>Positive and negative numbers and Temperatures</i> , p.205	p.42–43	Animation: <i>Comparing 4-digit numbers</i> Interactive: <i>Place value</i>	Number - number and place value Measurement Statistics	<ul style="list-style-type: none"> • interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through 0 • read Roman numerals to 1000 (M) and recognise years written in Roman numerals • use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling • solve comparison, sum and difference problems using information presented in a line graph
Rising Stars Mathematics Half-Termly Test Year 5 Autumn 2								



Medium-term Plans

Spring 1

Rising Stars Mathematics							National Curriculum	
Week	Strand	Weekly summary	Textbook topics and page numbers	Teacher's Guide	Practice Book	Interactives and videos	Domain	Statement
14	Number Sense	Read and use Roman numerals.	5c <i>Roman numerals</i> , p.64–65 <i>A mixture of numbers</i> , p.66–67 <i>And finally ...</i> , p.68–69	p.78–83 Homework: <i>Train timetables and Roman calculations</i> , p.206	p.44–45	CPD: <i>Number Sense - Introduction, The Learning Journey, Key Ideas 1, Next Steps</i>	Number - number and place value Measurement Statistics	<ul style="list-style-type: none"> • read Roman numerals to 1000 (M) and recognise years written in Roman numerals • use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling • complete, read and interpret information in tables, including timetables
15	Additive Reasoning	Use mental or written methods to solve addition and subtraction calculations. Use a variety of methods to check addition and subtraction calculations.	6 <i>Mental and written methods for addition and subtraction</i> , p.70–71 6a <i>Mental or written methods?</i> , p.72–73 6b <i>Don't forget to check!</i> , p.74–75 <i>A wise choice</i> , p.76–77 <i>And finally ...</i> , p.78–79	p.84–93 Homework: Choosing addition methods and Higher and higher, p.207, and <i>Subtraction trail and Record breakers</i> , p.208	p.46–51	Interactive: <i>Numerals and symbols</i> CPD: <i>Additive Reasoning - Key Ideas 1, Key Ideas 2, Next Steps</i>	Number - addition and subtraction Measurement Statistics	<ul style="list-style-type: none"> • add and subtract numbers mentally with increasingly large numbers • use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy • use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling • solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why • solve comparison, sum and difference problems using information presented in a line graph • complete, read and interpret information in tables, including timetables



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16	Number Sense	Compare and order fractions whose denominators are all multiples of the same number.	<i>7 Fractions, decimals and percentages</i> , p.80–81 <i>7a Comparing and ordering fractions</i> , p.82–83	p.94–97 Homework: <i>Ordering fractions and Equivalent pairs</i> , p.209	p.52–54	Animation: <i>Fraction and decimal equivalents</i> Interactive: <i>Fraction and decimal wall</i> CPD: <i>Number Sense - Key Ideas 2, Next Steps</i>	Number - fractions (including decimals and percentages) Measurement	<ul style="list-style-type: none"> compare and order fractions whose denominators are all multiples of the same number use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling
17	Number Sense	Recognise mixed numbers and improper fractions.	<i>7b Improper fractions and mixed numbers</i> , p.84–85	p.98–99 Homework: <i>Improper fractions to mixed numbers and Measuring and converting lengths</i> , p.210	p.55–57	Animation: <i>Fraction and decimal equivalents</i> Interactive: <i>Fraction and decimal wall</i>	Number - fractions (including decimals and percentages) Measurement	<ul style="list-style-type: none"> recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements >1 as a mixed number [for example, $2/5 + 4/5 = 6/5 = 1 \frac{1}{5}$] read and write decimal numbers as fractions [for example, $0.71 = 71/100$] use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling
18	Number Sense	Identify equivalent fractions.	<i>7c Equivalences</i> , p.86–87 <i>Fraction fun!</i> , p.90–91 Game 2	p.100–101, p.104–105 Homework: <i>Grams and kilograms and Decimal stepping stones</i> , p.211	p.58–59	Animation: <i>Fraction and decimal equivalents</i> Interactive: <i>Fraction and decimal wall</i>	Number - fractions (including decimals and percentages)	<ul style="list-style-type: none"> recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths



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19	Number Sense	Understand and use percentages.	7d Percentages, p.88–89 <i>Fraction fun!</i> , p.90–91 Game 1 <i>And finally ...</i> , p.92–93	p.102–107 Homework: <i>Finding percentages</i> and <i>Percentage, decimal, fraction</i> , p.212	p.60–63	CPD: <i>Number Sense - Next Steps</i>	Number - fractions (including decimals and percentages) Measurement	<ul style="list-style-type: none"> • recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per hundred', and write percentages as a fraction with denominator 100, and as a decimal • identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths • compare and order fractions whose denominators are all multiples of the same number • use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling
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Medium-term Plans

Spring 2

Rising Stars Mathematics							National Curriculum	
Week	Strand	Weekly summary	Textbook topics and page numbers	Teacher's Guide	Practice Book	Interactives and videos	Domain	Statement
20	Multiplicative Reasoning	Identify and use prime, square and cube numbers.	8 <i>Special numbers, operators and scaling</i> , p.94–95 8a <i>Primes, squares and cubes</i> , p.96–97	p.108–111 Homework: <i>Square areas</i> and <i>Prime investigation</i> , p.213	p.64–66	Interactive: <i>100 squares</i> CPD: <i>Multiplicative Reasoning - Key Ideas 1, Key Ideas 2, Next Steps</i>	Number - multiplication and division	<ul style="list-style-type: none"> know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers establish whether a number up to 100 is prime and recall prime numbers up to 19 recognise and use square numbers and cube numbers, and the notation for squared (2) and cubed (3) solve problems involving multiplication and division, including using their knowledge of factors and multiples, squares and cubes
21	Multiplicative Reasoning	Solve multiplication and division calculations using fractions as operators.	8b <i>Using fractions as operators for multiplication and division</i> , p.98–99	p.112–113 Homework: <i>Finding fractions of amounts</i> and <i>Which deal is best?</i> , p.214	p.67–69	CPD: <i>Multiplicative Reasoning - Key Ideas 3</i>	Number - fractions (including decimals and percentages)	<ul style="list-style-type: none"> solve problems which require knowing percentage and decimal equivalents of $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{5}$, $\frac{2}{5}$, $\frac{4}{5}$ and those with a denominator of a multiple of 10 or 25
22	Multiplicative Reasoning	Solve multiplication and division calculations using scaling.	8c <i>Using scaling for multiplication and division</i> , p.100–101 <i>Higher and higher</i> , p.102–103 <i>And finally ...</i> , p.104–105	p.114–119 Homework: <i>Growth rate of plants</i> and <i>Scaling the cost of flowers</i> , p.215	p.70–73	CPD: <i>Multiplicative Reasoning - Key Ideas 2, Next Steps</i>	Number - multiplication and division Measurement	<ul style="list-style-type: none"> solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling



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23	Geometric Reasoning	Describe transformations of 2-D shapes.	9 2-D and 3-D shapes, p.106–107 9a Reflecting and translating 2-D shapes, p.108–109	p.120–123 Homework: <i>Reflection game and Symmetrical arrangement</i> , p.216	p.74–78	Interactive: 2-D shapes Interactive: 3-D shapes Interactive: <i>Geometry instruments</i> CPD: <i>Geometric Reasoning - Key Ideas 1, Key Ideas 2, Next Steps</i>	Geometry - position and direction	<ul style="list-style-type: none"> identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed
24	Geometric Reasoning	Identify 3-D shapes.	9b Identifying 3-D shapes, p.110–111 3-D shapes challenge, p.114–115	p.124–125, p.128–129 Homework: <i>Shape maker and 3-D constructions with cubes</i> , p.217	p.79–82	Interactive: 3-D shapes	Geometry - position and direction	<ul style="list-style-type: none"> identify 3-D shapes, including cubes and other cuboids, from 2-D representations
25	Geometric Reasoning	Draw, measure and calculate angles.	9c Angles, p.112–113 <i>And finally ...</i> , p.116–117	p.126–127, p.130–131 Homework: <i>Finding triangles and Guess my shape</i> , p.218	p.83–85	Animation: <i>Identifying angles</i> Animation: <i>Straight lines and angles</i> Interactive: <i>Geometry instruments</i> CPD: <i>Geometric Reasoning - Next Steps</i>	Geometry - properties of shapes	<ul style="list-style-type: none"> know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles draw given angles, and measure them in degrees (°) identify: <ul style="list-style-type: none"> angles at a point and 1 whole turn (total 360°) angles at a point on a straight line and ½ a turn (total 180°) other multiples of 90° identify 3-D shapes, including cubes and other cuboids, from 2-D representations use the properties of rectangles to deduce related facts and find missing lengths and angles



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26	Number Sense	Use negative numbers, large numbers and fractions.	10 <i>Negative numbers, fractions and decimals</i> , p.118–119 10a <i>Negative numbers and millions</i> , p.120–121 <i>Number order challenge</i> , p.126–127 Game 1	p.132–135, p.140–141 Homework: <i>Making millions and Comparing areas</i> , p.219	p.86–88	Interactive: <i>Fraction and decimal wall</i> CPD: <i>Number Sense - Key Ideas 1, Key Ideas 2, Next Steps</i>	Number - number and place value	<ul style="list-style-type: none"> interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers including through 0 read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit
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Medium-term Plans

Summer 1

Rising Stars Mathematics							National Curriculum	
Week	Strand	Weekly summary	Textbook topics and page numbers	Teacher's Guide	Practice Book	Interactives and videos	Domain	Statement
27	Number Sense	<p>Compare and order fractions.</p> <p>Recognise and convert between mixed numbers and improper fractions.</p> <p>Read, write, order, compare and round decimal fractions.</p>	<p>10b <i>All about fractions</i>, p.122–123</p> <p>10c <i>All about decimal fractions</i>, p.124–125</p> <p><i>Number order challenge</i>, p.126–127</p> <p>Game 2</p> <p><i>And finally ...</i>, p.128–129</p>	<p>p.136–143</p> <p>Homework: <i>Fractions of amounts</i> and <i>Equivalent fractions</i>, p.220, and <i>Rounding decimals</i> and <i>Calculating decimal mass</i>, p.221</p>	p.89–95	<p>Interactive: <i>Fraction and decimal wall</i></p> <p>Animation: <i>Fraction and decimal equivalents</i></p> <p>Interactive: <i>Place value</i></p> <p>CPD: <i>Number Sense - Key Ideas 1, Key Ideas 2, Next Steps</i></p>	<p>Number - fractions (including decimals and percentages)</p> <p>Measurement</p>	<ul style="list-style-type: none"> compare and order fractions whose denominators are all multiples of the same number recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements >1 as a mixed number [for example, $2/5 + 4/5 = 6/5 = 1 \frac{1}{5}$] read and write decimal numbers as fractions [for example, $0.71 = 71/100$] round decimals with 2 decimal places to the nearest whole number and to 1 decimal place convert between different units of measure (e.g. kilometre and metre; metre and centimetre; centimetre and millimetre; kilogram and gram; litre and millilitre)
28	Additive Reasoning	<p>Add and subtract large numbers and decimals with up to three decimal places.</p>	<p>11 <i>Addition and subtraction using measurement</i>, p.130–131</p> <p>11a <i>Applying addition and subtraction</i>, p.132–133</p> <p><i>A moley mass!</i>, p.136–137</p>	<p>p.144–147, p.150–151</p> <p>Homework: <i>Adding and subtracting measurements</i> and <i>Slush machines</i>, p.222</p>	p.96–99	<p>CPD: <i>Additive Reasoning - Key Ideas 1, Key Ideas 2, Next Steps</i></p>	<p>Number - addition and subtraction</p> <p>Number - fractions (including decimals and percentages)</p>	<ul style="list-style-type: none"> add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction) solve problems involving number up to three decimal places



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29	Additive Reasoning	Add and subtract fractions with denominators that are multiples of the same number.	11b <i>Adding and subtracting fractions</i> , p.134–135 <i>And finally ...</i> , p.138–139	p.148–149, p.152–153 Homework: <i>Fraction puzzle and Fraction conversions and calculations</i> , p.223	p.100–103	CPD: <i>Additive Reasoning - Next Steps</i>	Number - fractions (including decimals and percentages) Measurement	<ul style="list-style-type: none"> recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements >1 as a mixed number [for example, $2/5 + 4/5 = 6/5 = 1 \frac{1}{5}$] add and subtract fractions with the same denominator, and denominators that are multiples of the same number use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints
30	Number Sense	Compare and order fractions whose denominators are all multiples of the same number.	12 <i>Exploring fractions, decimals and percentages</i> , p.140–141 12a <i>Exploring fractions</i> , p.142–143	p.154–157 Homework: <i>Fractions of time and Weighing and finding fractions</i> , p.224	p.104–107	CPD: <i>Number Sense - Key Ideas 1, Key Ideas 2, Next Steps</i>	Number - fractions (including decimals and percentages) Measurement	<ul style="list-style-type: none"> compare and order fractions whose denominators are all multiples of the same number multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling



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31	Number Sense	Use decimal numbers to four decimal places.	12b <i>Working with decimals</i> , p.144–145	p.158–159 Homework: <i>Multiply and divide by multiples of 10, 100 and 1000</i> and <i>Mystery number</i> , p.225	p.108–110	Interactive: <i>Place value</i>	Number - fractions (including decimals and percentages) Number - multiplication and division Measurement	<ul style="list-style-type: none"> • read and write decimal numbers as fractions [for example, $0.71 = 71/100$] • recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents • multiply and divide whole numbers and those involving decimals by 10, 100 and 1000 • use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling
32	Number Sense	Calculate and convert percentages.	12c <i>Calculating and converting percentages</i> , p.146–147 <i>Playing around with percentages!</i> , p.148–149 <i>And finally ...</i> , p.150–151	p.160–165 Homework: <i>Population percentages</i> and <i>Takeaway price increase</i> , p.226	p.111–113	Interactive: <i>Place value</i> CPD: <i>Number Sense - Next Steps</i>	Number - fractions (including decimals and percentages) Measurement	<ul style="list-style-type: none"> • recognise the per cent symbol (%) and understand that per cent relates to ‘number of parts per hundred’, and write percentages as a fraction with denominator 100, and as a decimal • use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling
Rising Stars Mathematics Half-Termly Test Year 5 Summer 1								



Medium-term Plans

Summer 2

Rising Stars Mathematics							National Curriculum	
Week	Strand	Weekly summary	Textbook topics and page numbers	Teacher's Guide	Practice Book	Interactives and videos	Domain	Statement
33	Multiplicative Reasoning	Identify and use factors and prime factors.	13 <i>Factors, scaling and long multiplication and division</i> , p.152–153 13a <i>All about factors</i> , p.154–155	p.166–169 Homework: <i>Prime factor tree</i> and <i>Age factors</i> , p.227	p.114–117	Interactive: <i>100 squares</i> CPD: <i>Multiplicative Reasoning - Key Ideas 2, Next Steps</i>	Number - multiplication and division Measurement	<ul style="list-style-type: none"> • identify multiples and factors, including finding all factor pairs of a number, and common factors of 2 numbers • know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers • establish whether a number up to 100 is prime and recall prime numbers up to 19 • use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling
34	Multiplicative Reasoning	Perform mental multiplication and division calculations.	13b <i>Mental calculation and scaling</i> , p.156–157 <i>Mental maths!</i> , p.162–163	p.170–171, p.176–177 Homework: <i>Scaling up using multiplication</i> and <i>Scaling down</i> , p.228	p.118–120	CPD: <i>Multiplicative Reasoning - Key Ideas 1</i>	Number - multiplication and division Measurement	<ul style="list-style-type: none"> • multiply and divide numbers mentally, drawing upon known facts • use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling
35	Multiplicative Reasoning	Multiply four-digit numbers by one-digit numbers.	13c <i>4-digit and long multiplication</i> , p.158–159	p.172–173 Homework: <i>Using the grid method</i> and <i>Long multiplication</i> , p.229	p.121–125		Number - multiplication and division Measurement	<ul style="list-style-type: none"> • multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers • use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling



Medium-term Plans

36	Multiplicative Reasoning	Divide four-digit numbers by one-digit numbers.	13d <i>Division with remainders</i> , p.160–161 <i>And finally ...</i> , p.164–165	p.174–175, p.178–179 Homework: <i>Remainders as decimals and fractions</i> and <i>Remainders after division</i> , p.230	p.126–127	CPD: <i>Multiplicative Reasoning - Next Steps</i>	Number - multiplication and division	<ul style="list-style-type: none"> • divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context • solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign
37	Geometric Reasoning	Measure and calculate perimeter of composite shapes. Calculate the area and perimeter of irregular shapes.	14 <i>Perimeter, area and volume</i> , p.166–167 14a <i>Finding perimeters</i> , p.168–169 14b <i>Areas and perimeters</i> , p.170–171 <i>Rectangle fill in</i> , p.174–175	p.180–185, p.188–189 Homework: <i>Perimeters of rectangles</i> and <i>Finding perimeters</i> , p.231, and <i>Areas of rectangles and Areas and perimeters</i> , p.232	p.128–136	Animation: <i>Regular and irregular 2-D shapes</i> Animation: <i>Polygons</i> CPD: <i>Geometric Reasoning - Key Ideas 1, Next Steps</i>	Measurement	<ul style="list-style-type: none"> • measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres • calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm²) and square metres (m²), and estimate the area of irregular shapes
38	Geometric Reasoning	Calculate volume of cuboids.	14c <i>Volume and capacity</i> , p.172–173 <i>And finally ...</i> , p.176–177	p.186–187, p.190–191 Homework: <i>Volume patterns</i> and <i>Investigating volumes</i> , p.233	p.137–139	Animation: <i>What is capacity?</i> CPD: <i>Geometric Reasoning - Next Steps</i>	Measurement	<ul style="list-style-type: none"> • estimate volume [for example, using 1 cm³ blocks to build cuboids (including cubes)] and capacity [for example, using water]
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