



Medium-term Plans

These medium-term plans give a complete at-a-glance overview of the structure of *Rising Stars Mathematics* for Year 6, which is a key resource we use at Heron Hill. We also use resources from other high-quality sources, including *White Rose* and *Ready to Progress* for curriculum prioritization to address gaps in learning as a result of the pandemic.

These medium-term plans give a complete at-a-glance overview of the structure of *Rising Stars Mathematics* for Year 6 detailing 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



Medium-term Plans

1	Number Sense	Determine the place value of digits in numbers up to 10 000 000. Compare, order and round numbers.	1 <i>Whole and part numbers</i> , p.10–11 1a <i>Place value</i> , p.12–13 1b <i>Comparing, ordering and rounding numbers</i> , p.14–15	p.24–29 Homework: <i>Place value in 6-digit numbers</i> and <i>Multiplying and dividing by 10 and 100</i> , p.198, and <i>Comparing and ordering numbers</i> and <i>Rounding money amounts</i> , p.199	p.4–10	Animation: <i>Currency</i> Interactive: <i>Place value</i> Interactive: <i>Coin</i> Interactive: <i>Money</i> CPD: <i>Number Sense - Introduction, The Learning Journey, Key Ideas 1, Next Steps</i>	Number - number and place value Number - fractions (including decimals and percentages) Measurement	<ul style="list-style-type: none"> • read, write, order and compare numbers up to 10 000 000 and determine the value of each digit • round any whole number to a required degree of accuracy • identify the value of each digit in numbers given to 3 decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to 3 decimal places • convert between miles and kilometres • solve problems involving the calculation and conversion of units of measure, using decimal notation up to 3 decimal places where appropriate • use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to 3 decimal places
2	Number Sense	Compare, order and simplify fractions.	1c <i>Comparing, ordering and simplifying fractions</i> , p.16–17	p.30–31 Homework: <i>Comparing and ordering fractions</i> and <i>Simplifying fractions</i> , p.200	p.11–14	Interactive: <i>Fraction and decimal wall</i> CPD: <i>Number Sense - Key Ideas 2</i>	Number - fractions (including decimals and percentages) Measurement	<ul style="list-style-type: none"> • compare and order fractions, including fractions >1 • solve problems which require answers to be rounded to specified degrees of accuracy • solve problems involving the calculation and conversion of units of measure, using decimal notation up to 3 decimal places where appropriate
3	Number Sense	Recognise equivalences between fractions, decimals and percentages.	1d <i>Equivalences</i> , p.18–19 <i>All change!</i> , p.20–21 <i>And finally ...</i> , p.22–23	p.32–37 Homework: <i>Colouring sections of a square</i> and <i>Equivalence</i> , p.201	p.15–17	Interactive: <i>Fraction and decimal wall</i> CPD: <i>Number Sense - Next Steps</i>	Number - fractions (including decimals and percentages)	<ul style="list-style-type: none"> • identify the value of each digit in numbers given to 3 decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to 3 decimal places



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4	Additive Reasoning	Perform mental calculations involving 3- and 4-digit numbers.	2 <i>Calculations and algebra</i> , p.24–25 2a <i>Calculating mentally with 3- and 4-digit numbers</i> , p.26–27 <i>Dicey operations!</i> , p.32–33	p.38–41, p.46–47 Homework: <i>Adding and subtracting with 4-digit numbers</i> and <i>Combining lengths</i> , p.202	p.18–24	CPD: <i>Additive Reasoning - Introduction, The Learning Journey, Key Ideas 1, Key Ideas 3, Next Steps</i>	Number - addition, subtraction, multiplication and division Measurement	<ul style="list-style-type: none"> perform mental calculations, including with mixed operations and large numbers solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why solve problems involving the calculation and conversion of units of measure, using decimal notation up to 3 decimal places where appropriate
5	Additive Reasoning	Use the order of operations.	2b <i>Using the order of operations</i> , p.28–29	p.42–43 Homework: <i>Order of operations</i> and <i>Using all 4 operations in different ways</i> , p.203	p.25–27		Number - addition, subtraction, multiplication and division Measurement	<ul style="list-style-type: none"> use their knowledge of the order of operations to carry out calculations involving the 4 operations solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why solve problems involving the calculation and conversion of units of measure, using decimal notation up to 3 decimal places where appropriate
6	Additive Reasoning	Create simple algebraic formulae.	2c <i>Using formulae</i> , p.30–31 <i>And finally ...</i> , p.34–35	p.44–45, p.48–49 Homework: <i>Comparing lengths and writing equations</i> and <i>Finding possible answers</i> , p.204	p.28–30	CPD: <i>Additive Reasoning - Key Ideas 2, Next Steps</i>	Algebra	<ul style="list-style-type: none"> use simple formulae express missing number problems algebraically
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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
7	Multiplicative Reasoning	Perform multiplication calculations using formal written methods. Perform mental calculations with large numbers.	3 <i>Larger numbers</i> , p.36–37 3a <i>Using long multiplication</i> , p.38–39 3b <i>Calculating mentally with large numbers</i> , p.40–41 <i>Making products</i> , p.46–47	p.50–55, p.60–61 Homework: <i>Multiplication of 3-digit by 2-digit numbers</i> and <i>Cycling times – long multiplication</i> , p.205, and <i>Multiplication investigation and Multiplying 3-digit numbers by multiples of 10</i> , p.206	p.31–38	CPD: <i>Multiplicative Reasoning - Introduction, The Learning Journey, Key Ideas 1, Next Steps</i>	Number - addition, subtraction, multiplication and division Measurement Statistics	<ul style="list-style-type: none"> multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication perform mental calculations, including with mixed operations and large numbers solve problems involving addition, subtraction, multiplication and division solve problems involving the calculation and conversion of units of measure, using decimal notation up to 3 decimal places where appropriate calculate and interpret the mean as an average
8	Multiplicative Reasoning	Multiply and divide up to 2 decimal places.	3c <i>Multiply and divide up to 2 decimal places</i> , p.42–43	p.56–57 Homework: <i>Using place value when multiplying and dividing decimals</i> and <i>Finding the mean (average) using division</i> , p.207	p.39–41	CPD: <i>Multiplicative Reasoning - Introduction, Key Ideas 2</i>	Number - fractions (including decimals and percentages) Measurement	<ul style="list-style-type: none"> multiply one-digit numbers with up to 2 decimal places by whole numbers use written division methods in cases where the answer has up to 2 decimal places solve problems involving the calculation and conversion of units of measure, using decimal notation up to 3 decimal places where appropriate



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9	Multiplicative Reasoning	Solve problems involving ratio and proportion.	3d <i>Solving problems with ratio and proportion</i> , p.44–45 <i>And finally ...</i> , p.48–49	p.58–59, p.62–63 Homework: <i>Mystery numbers and Using ratio and proportion</i> , p.208	p.42–44	CPD: <i>Multiplicative Reasoning - Key Ideas 2, Next Steps</i>	Number - addition, subtraction, multiplication and division Number - fractions (including decimals and percentages) Ratio and proportion	<ul style="list-style-type: none"> perform mental calculations, including with mixed operations and large numbers solve problems involving addition, subtraction, multiplication and division use written division methods in cases where the answer has up to 2 decimal places solve problems involving the relative sizes of 2 quantities where missing values can be found by using integer multiplication and division facts solve problems involving similar shapes where the scale factor is known or can be found solve problems involving unequal sharing and grouping using knowledge of fractions and multiples
10	Geometric Reasoning	Calculate area of triangles and parallelograms. Find missing angles.	4 <i>2-D shapes, 3-D shapes and nets</i> , p.50–51 4a <i>Area and properties of 2-D shapes</i> , p.52–53 <i>Area and volume snakes and ladders</i> , p.58–59 Game 1 4b <i>Finding angles</i> , p.54–55	p.64–69 Homework: <i>Garden design and Triangular areas</i> , p.209, and <i>Exploring angles and Exterior and interior angles of a triangle</i> , p.210	p.45–53	Interactive: <i>2-D shapes</i> Interactive: <i>Geometry instruments</i> CPD: <i>Geometric Reasoning - Introduction, Learning Journey, Key Ideas 1, Next Steps</i>	Geometry - properties of shapes Measurement	<ul style="list-style-type: none"> draw 2-D shapes using given dimensions and angles compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles recognise that shapes with the same areas can have different perimeters and vice versa calculate the area of parallelograms and triangles



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11	Geometric Reasoning	Describe 3-D shapes and make nets.	<i>4c Describing 3-D shapes and making nets</i> , p.56–57 <i>Area and volume snakes and ladders</i> , p.58–59 Game 2 <i>And finally ...</i> , p.60–61	p.70–75 Homework: <i>Stacking cubes into a cuboid shape</i> and <i>Nets of cuboids</i> , p.211	p.54–57	Interactive: <i>3-D shapes</i> CPD: <i>Geometric Reasoning - Key Ideas 2, Next Steps</i>	Geometry - properties of shapes Measurement	<ul style="list-style-type: none"> recognise, describe and build simple 3-D shapes, including making nets recognise when it is possible to use the formulae for area and volume of shapes
12	Number Sense	Use negative numbers and decimals in real-life contexts.	<i>5 Numbers in everyday life</i> , p.62–63 <i>5a Negative numbers in real life</i> , p.64–65 <i>Different types of number</i> , p.68–69 Game 2 <i>5b Decimals in context</i> , p.66–67 <i>Different types of number</i> , p.68–69 Game 1 <i>And finally ...</i> , p.70–71	p.76–85 Homework: <i>Exploring coordinates</i> and <i>Bank balances and negative numbers</i> , p.212, and <i>Converting measurements and Measuring time</i> , p.213	p.58–63	Interactive: <i>Place value</i> CPD: <i>Number Sense - Key Ideas 1, Next Steps</i>	Number - number and place value Number - fractions (including decimals and percentages) Measurement Statistics	<ul style="list-style-type: none"> use negative numbers in context, and calculate intervals across 0 solve number and practical problems that involve all of the above identify the value of each digit in numbers given to 3 decimal places and multiply and divide numbers by 10, 100 and 1000 given answers up to 3 decimal places solve problems involving the calculation and conversion of units of measure, using decimal notation up to 3 decimal places where appropriate interpret and construct pie charts and line graphs and use these to solve problems

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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
17	Additive Reasoning	Perform mental calculations to solve problems. Solve multi-step problems and round numbers to solve problems.	6 <i>Solving problems</i> , p.72–73 6a <i>Calculating mentally to solve problems</i> , p.74–75 6b <i>Solving multi-step problems</i> , p.76–77	p.86–91 Homework: <i>Negative numbers, bridging zero and World temperatures</i> , p.214, and <i>Money box totals and Meal planning</i> , p.215	p.64–71	Animation: <i>Currency</i> Interactive: <i>Coin</i> Interactive: <i>Money</i> CPD: <i>Additive Reasoning - Key Ideas 1, Key Ideas 3, Next Steps</i>	Number - addition, subtraction, multiplication and division Measurement Statistics	<ul style="list-style-type: none"> perform mental calculations, including with mixed operations and large numbers solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why solve problems involving addition and subtraction use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy solve problems involving the calculation and conversion of units of measure, using decimal notation up to 3 decimal places where appropriate interpret and construct pie charts and line graphs and use these to solve problems
19	Additive Reasoning	Solve multi-step problems and round numbers to solve problems. Describe number sequences using algebraic formulae.	6c <i>Rounding to solve problems</i> , p.78–79 6d <i>Describing number sequences</i> , p.80–81 <i>Formula won!</i> , p.82–83 <i>And finally ...</i> , p.84–85	p.92–99 Homework: <i>Fast times and Multiplying and rounding decimals</i> , p.216, and <i>Using a formula and Describing patterns</i> , p.217	p.72–79	Animation: <i>Currency</i> Interactive: <i>Coin</i> Interactive: <i>Money</i> CPD: <i>Additive Reasoning - Key Ideas 2, Key Ideas 3, Next Steps</i>	Number - addition, subtraction, multiplication and division Measurement Algebra	<ul style="list-style-type: none"> solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why solve problems involving addition and subtraction use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy solve problems involving the calculation and conversion of units of measure, using decimal notation to 3 decimal places where appropriate use simple formulae generate and describe linear number sequences



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21	Number Sense	Compare, order, add and subtract fractions.	<i>7 Let's explore fractions and algebra!</i> , p.86–87 <i>7a Fraction equivalences</i> , p.88–89	p.100–103 Homework: <i>Creating and converting fractions</i> and <i>Adding and subtracting fractions</i> , p.218	p.80–84	Interactive: <i>Fraction and decimal wall</i> 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"> • use common factors to simplify fractions; use common multiples to express fractions in the same denomination • compare and order fractions, including fractions >1 • add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions • solve problems involving the calculation and conversion of units of measure, using decimal notation to 3 decimal places where appropriate
22	Number Sense	Determine fraction, decimal and percentage equivalences.	<i>7b Fraction, decimal and percentage equivalences</i> , p.90–91	p.104–105 Homework: <i>Converting fractions, decimals and percentages</i> and <i>Finding fractions, decimals and percentages of amounts</i> , p.219	p.85–87	Interactive: <i>Fraction and decimal wall</i>	Number - fractions (including decimals and percentages) Measurement	<ul style="list-style-type: none"> • associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example, $\frac{3}{8}$] • recall and use equivalences between simple fractions, decimals and percentages, including in different contexts • solve problems involving the calculation and conversion of units of measure, using decimal notation to 3 decimal places where appropriate
23	Number Sense	Create algebraic formulae.	<i>7c Formulae</i> , p.92–93	p.106–107 Homework: <i>Making rectangles and using formulae</i> and <i>Perimeter and area formulae and patterns</i> , p.220	p.88–93	CPD: <i>Number Sense - Key Ideas 3</i>	Algebra Measurement	<ul style="list-style-type: none"> • use simple formulae • generate and describe linear number sequences • express missing number problems algebraically • recognise when it is possible to use formulae for area and volume of shapes • calculate the area of parallelograms and triangles



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24	Number Sense	Use algebra to describe missing number statements.	7d <i>Missing number statements</i> , p.94–95 <i>Unknown numbers</i> , p.96–97 <i>And finally ...</i> , p.98–99	p.108–113 Homework: <i>Algebra puzzle</i> and <i>Finding unknown values using balancing</i> , p.221	p.94–96	CPD: <i>Number Sense - Next Steps</i>	Algebra Measurement	<ul style="list-style-type: none"> • use simple formulae • generate and describe linear number sequences • express missing number problems algebraically • solve problems involving the calculation and conversion of units of measure, using decimal notation to 3 decimal places where appropriate
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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
25	Multiplicative Reasoning	Identify common factors, multiples and prime numbers.	8 <i>Using what you know</i> , p.100–101 8a <i>Identifying common factors, multiples and prime numbers</i> , p.102–103 <i>Challenging numbers</i> , p.110–111	p.114–117, p.124–125 Homework: <i>Prime factors and Common multiples</i> , p.222	p.97–99	CPD: <i>Multiplicative Reasoning - Key Ideas 3</i>	Number - addition, subtraction, multiplication and division Measurement Statistics	<ul style="list-style-type: none"> • identify common factors, common multiples and prime numbers • solve problems involving addition, subtraction, multiplication and division • solve problems involving the calculation and conversion of units of measure, using decimal notation up to 3 decimal places where appropriate • interpret and construct pie charts and line graphs and use these to solve problems
26	Multiplicative Reasoning	Multiply and divide decimal numbers.	8b <i>Multiplying and dividing decimal numbers</i> , p.104–105	p.118–119 Homework: <i>Running times and Multiplying decimals</i> , p.223	p.100–103	Animation: <i>Multiplying by decimals</i> Interactive: <i>Coin</i> Interactive: <i>Money</i> CPD: <i>Multiplicative Reasoning - Key Ideas 2</i>	Number - fractions (including decimals and percentages) Ratio and proportion Measurement Statistics	<ul style="list-style-type: none"> • multiply one-digit numbers with up to 2 decimal places by whole numbers • use written division methods in cases where the answer has up to 2 decimal places • solve problems involving the calculation of percentages [for example, of measures, and such as 15% of 360] and the use of percentages for comparison • solve problems involving the calculation and conversion of units of measure, using decimal notation up to 3 decimal places where appropriate • interpret and construct pie charts and line graphs and use these to solve problems



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27	Multiplicative Reasoning	Solve problems involving percentages. Solve algebraic equations.	8c <i>Solving problems with percentages</i> , p.106–107 <i>Challenging numbers</i> , p.110–111 8d <i>Solving equations</i> , p.108–109 <i>And finally ...</i> , p.112–113	p.120–127 Homework: <i>Calculating percentages</i> and <i>Value Added Tax</i> , p.224, and <i>Arrangements of disco lights</i> and <i>Finding unknown values</i> , p.225	p.104–109	Interactive: <i>Coin</i> Interactive: <i>Money</i> CPD: <i>Number Sense - Key Ideas 3</i> <i>Multiplicative Reasoning - Key Ideas 3</i> , <i>Next Steps</i>	Number - fractions (including decimals and percentages) Ratio and proportion Measurement Statistics Algebra	<ul style="list-style-type: none"> multiply one-digit numbers with up to 2 decimal places by whole numbers use written division methods in cases where the answer has up to 2 decimal places solve problems involving the calculation of percentages [for example, of measures, and such as 15% of 360] and the use of percentages for comparison solve problems involving the calculation and conversion of units of measure, using decimal notation up to 3 decimal places where appropriate interpret and construct pie charts and line graphs and use these to solve problems use simple formulae find pairs of numbers that satisfy an equation with two unknowns enumerate possibilities of combinations of 2 variables
29	Geometric Reasoning	Investigate parts of circles and find missing angles and lengths in shapes.	9 <i>Shapes and coordinates</i> , p.114–115 9a <i>Circles and scaling</i> , p.116–117	p.128–131 Homework: <i>Circles</i> and <i>Enlarging triangles</i> , p.226	p.110–112	Animation: <i>Drawing circles</i> Interactive: <i>2-D shapes</i> Interactive: <i>Geometry instruments</i> CPD: <i>Geometric Reasoning - Key Ideas 1</i> , <i>Key Ideas 2</i>	Geometry - properties of shapes	<ul style="list-style-type: none"> compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius



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30	Geometric Reasoning	Investigate parts of circles and find missing angles and lengths in shapes.	9b <i>Finding missing values</i> , p.118–119	p.132–133 Homework: <i>Making and measuring angles</i> and <i>Shapes inside shapes</i> , p.227	p.113–117	Animation: <i>Drawing circles</i> Interactive: <i>2-D shapes</i> Interactive: <i>Geometry instruments</i>	Geometry - properties of shapes Measurement	<ul style="list-style-type: none"> • compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons • illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius • calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm³) and cubic metres (m³) and extending to other units [for example mm³ and km³]
31	Geometric Reasoning	Translate shapes on coordinate grids, across all four quadrants.	9c <i>Translation over four quadrants</i> , p.120–121 <i>Get coordinated!</i> , p.122–123 <i>And finally ...</i> , p.124–125	p.134–139 Homework: <i>Matching grids</i> and <i>Translations</i> , p.228	p.118–121	CPD: <i>Geometric Reasoning - Key Ideas 2, Next Steps</i>	Geometry - position and direction	<ul style="list-style-type: none"> • describe positions on the full coordinate grid (all 4 quadrants) • draw and translate simple shapes on the coordinate plane, and reflect them in the axes
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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
32	Number Sense	Investigate algebraic formulae with two unknown variables.	10 <i>Focus on algebra</i> , p.126–127 10a <i>Unknowns and variables</i> , p.128–129 <i>Think algebra!</i> , p.132–133 Game 2	p.140–143, p.146–147 Homework: <i>Working out unknowns and Variables</i> , p.229	p.122–123	Animation: <i>Currency</i> Interactive: <i>Coin</i> Interactive: <i>Money</i> CPD: <i>Number Sense - Key Ideas 3, Next Steps</i>	Algebra Measurement Statistics	<ul style="list-style-type: none"> • use simple formulae • use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation up to 3 decimal places • interpret and construct pie charts and line graphs and use these to solve problems
33	Number Sense	Describe linear relationships between variables, using formulae.	10b <i>Linear number sequences</i> , p.130–131 <i>Think algebra!</i> , p.132–133 Game 1 <i>And finally ...</i> , p.134–135	p.144–149 Homework: <i>Number sequences and Handshakes</i> , p.230	p.124–126	CPD: <i>Number Sense - Next Steps</i>	Algebra Statistics	<ul style="list-style-type: none"> • use simple formulae • generate and describe linear number sequences • interpret and construct pie charts and line graphs and use these to solve problems
34	Additive Reasoning	Solve multi-step problems.	11 <i>Solving more problems</i> , p.136–137 11a <i>Solving multi-step problems</i> , p.138–139	p.150–153 Homework: <i>Using bar model diagrams and 24 hours in 1 day</i> , p.231	p.127–128	CPD: <i>Additive Reasoning - Key Ideas 3</i>	Number - addition, subtraction, multiplication and division Measurement	<ul style="list-style-type: none"> • solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why • use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation up to 3 decimal places



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35	Additive Reasoning	Solve problems involving fractions. Find possible solutions for algebraic equations.	11b <i>Solving problems involving fractions</i> , p.140–141 <i>Fraction frenzy!</i> , p.144–145 11c <i>Finding possible solutions for equations</i> , p.142–143 <i>And finally ...</i> , p.146–147	p.154–161 Homework: <i>Fraction flag</i> and <i>Midpoint between 2 fractions</i> , p.232, and <i>Function machines</i> and <i>Formulae for lines on graphs</i> , p.233	p.129–135	Interactive: <i>Fraction and decimal wall</i> CPD: <i>Additive Reasoning - Key Ideas 2, Key Ideas 3, Next Steps</i>	Fractions (including decimal and percentages) Algebra	<ul style="list-style-type: none"> • add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions • use simple formulae • find pairs of numbers that satisfy an equation with 2 unknowns
37	Number Sense	Determine equivalent fractions.	12 <i>Fractions, equivalents and algebra</i> , p.148–149 12a <i>Equivalences</i> , p.150–151 <i>Odd and even four in a row</i> , p.156–157 Game 2	p.162–165, p.170–171 Homework: <i>Fraction story</i> and <i>Fractions and percentages shown on a pie chart</i> , p.234	p.136–141	Interactive: <i>Fraction and decimal wall</i> CPD: <i>Number Sense - Key Ideas 2</i>	Number - fractions (including decimals and percentages) Measurement Statistics	<ul style="list-style-type: none"> • use common factors to simplify fractions; use common multiples to express fractions in the same denomination • associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example, 3/8] • recall and use equivalences between simple fractions, decimals and percentages, including in different contexts • use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation up to 3 decimal places • interpret and construct pie charts and line graphs and use these to solve problems



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38	Number Sense	<p>Create algebraic formulae from number sequences.</p> <p>Express missing number problems and problems with two unknowns algebraically.</p>	<p>12b <i>Formulae and sequences</i>, p.152–153 <i>Odd and even four in a row</i>, p.156–157 Game 1 12c <i>Unknowns</i>, p.154–155 <i>Odd and even four in a row</i>, p.156–157 Game 2 <i>And finally ...</i>, p.158–159</p>	<p>p.166–173 Homework: <i>Area of the garden</i> and <i>Continuing sequences</i>, p.235, and <i>Calculating unknown values</i> and <i>Making £1.70 in different ways</i>, p.236</p>	p.142–149	<p>Animation: <i>Currency</i> Interactive: <i>Coin</i> Interactive: <i>Money</i> CPD: <i>Number Sense - Key Ideas 3, Next Steps</i></p>	Algebra	<ul style="list-style-type: none"> • use simple formulae • generate and describe linear number sequences • express missing number problems algebraically • find pairs of numbers that satisfy an equation with 2 unknowns
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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
40	Multiplicative Reasoning	Divide 4-digit numbers using long division.	13 <i>Fair shares</i> , p.160–161 13a <i>Using long division</i> , p.162–163 <i>Challenging times</i> , p.168–169	p.174–177, p.182–183 Homework: <i>Organising a school trip</i> and <i>Investigating remainder patterns</i> , p.237	p.150–152	CPD: <i>Multiplicative Reasoning - Key Ideas 2, Next Steps</i>	Number - addition, subtraction, multiplication and division Measurement	<ul style="list-style-type: none"> divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation up to 3 decimal places
41	Multiplicative Reasoning	Choose appropriate operations to solve problems.	13b <i>Choosing operations to solve problems</i> , p.164–165	p.178–179 Homework: <i>Word problems and bar models</i> and <i>Holiday club</i> , p.238	p.153–154	Animation: <i>Currency</i> Interactive: <i>Coin</i> Interactive: <i>Money</i>	Number - addition, subtraction, multiplication and division Measurement	<ul style="list-style-type: none"> use their knowledge of the order of operations to carry out calculations involving the 4 operations solve problems involving addition, subtraction, multiplication and division divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation up to 3 decimal places



Medium-term Plans

42	Multiplicative Reasoning	Multiply and divide simple fractions.	13c <i>Multiplying and dividing fractions</i> , p.166–167 <i>And finally ...</i> , p.170–171	p.180–181, p.184–185 Homework: <i>Multiplying fractions</i> and <i>Fraction puzzle</i> , p.239	p.155–157	Interactive: <i>Fraction and decimal wall</i> CPD: <i>Multiplicative Reasoning - Key Ideas 2, Next Steps</i>	Number - fractions (including decimals and percentages) Measurement	<ul style="list-style-type: none"> multiply simple pairs of proper fractions, writing the answer in its simplest form [for example, $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$] divide proper fractions by whole numbers [for example, $\frac{1}{3} \div 2 = \frac{1}{6}$] use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation up to 3 decimal places
43	Geometric Reasoning	Make and measure 3-D shapes.	14 <i>Nets, angles and coordinates</i> , p.172–173 14a <i>Making and measuring 3-D shapes</i> , p.174–175 <i>All about nets</i> , p.180–181 Game 1	p.186–189, p.194–195 Homework: <i>Possible nets for a square-based pyramid</i> and <i>Making cuboids with a given volume</i> , p.240	p.158–162	Interactive: <i>3-D shapes</i> CPD: <i>Geometric Reasoning - Key Ideas 2, Next Steps</i>	Geometry - properties of shapes	<ul style="list-style-type: none"> recognise, describe and build simple 3-D shapes, including making nets
44	Geometric Reasoning	Draw shapes and find angles.	14b <i>Drawing shapes and finding angles</i> , p.176–177 <i>All about nets</i> , p.180–181 Game 2	p.190–191, p.194–195 Homework: <i>Triangle angles</i> and <i>Making 3-D shapes from nets</i> , p.241	p.163–166	Interactive: <i>2-D shapes</i> Interactive: <i>Geometry instruments</i> CPD: <i>Geometric Reasoning - Key Ideas 1</i>	Geometry - properties of shapes	<ul style="list-style-type: none"> draw 2-D shapes using given dimensions and angles compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles



Medium-term Plans

45	Geometric Reasoning	Reflect shapes in the axes of coordinate grids.	14c <i>Reflections and equations</i> , p.178–179 <i>And finally ...</i> , p.182–183	p.192–193, p.196–197 Homework: <i>Castle design</i> and <i>Reflecting shapes</i> , p.242	p.167–172	CPD: <i>Geometric Reasoning - Key Ideas 2, Next Steps</i>	Geometry: position, direction, motion	<ul style="list-style-type: none"> • describe positions on the full coordinate grid (all 4 quadrants) • draw and translate simple shapes on the coordinate plane, and reflect them in the axes
Rising Stars Mathematics Half-Termly Test Year 6 Summer 2								