Planning grids

Year 3 scope and sequence

The following grid shows the concepts and objectives that are covered within each *Rising Stars Mathematics* Year 3 unit and provides page references to each of the various components.

Unit	Concept	Objectives	Textbook	Teacher's Guide	Practice Book	Homework Sheets
1	1a Tens and hundreds	• Count from zero in multiples of 100. • Find ten or 100 more or less than a given number.	12–13	26–7	4–6	178
	1b Hundreds, tens and ones	• Recognise the place value of each digit in a 3-digit number. • Read and write numbers up to 500 in numerals and words.	14–15	28–9	7–9	179
	1c Comparing and ordering numbers	• Recognise the place value of each digit in a 3-digit number. • Compare and order numbers up to 500.	16–17	30–1	10–12	180
	1d Representing numbers	• Identify, represent and estimate numbers to 500 using different representations.	18–19	32–3	13–17	181
2	2a Mental calculation strategies	• Add and subtract numbers mentally. • Add and subtract numbers with up to three digits. • Solve problems, including missing number problems, using number facts, place value and more complex addition and subtraction.	26–7	40–1	18–21	182
	2b Developing written methods	• Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction. • Estimate the answer to a calculation and use inverse operations to check answers.	28–9	42–3	22–4	183
3	3a 2s, 4s and 8s	• Recall and use multiplication and division facts for the three, four and eight multiplication tables. • Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for 2-digit numbers multiplied by single-digit numbers, mentally and progressing to formal methods.	36–7	50–1	25–8	184
	3b Commutativity	• Recall and use multiplication and division facts for the two, four and eight multiplication tables. • Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for 2-digit numbers multiplied by single-digit numbers, mentally and progressing to formal methods.	38–9	52–3	29–32	185
	3c Sharing and possibilities	• Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know. • Solve problems involving multiplication and division, including correspondence problems in which n objects are connected to m objects.	40–1	54–5	33–5	186
4	4a Making and describing 3-D shapes	• Draw 2-D shapes and make 3-D shapes using modelling materials. • Recognise 3-D shapes in different orientations and describe them. • Solve one-step and two-step questions using information in scaled bar charts, pictograms and tables.	48–9	62–3	36–9	187
	4b Angles	• Recognise angles as a property of shapes or a description of a turn. • Identify right angles. • Identify whether angles are greater than or less than a right angle.	50–1	64–5	40–1	188
5	5a Counting in steps of different sizes	• Count from zero in multiples of four, eight, 50 and 100. • Find ten or 100 more or less than a given number. • Interpret and present data using bar charts, pictograms and tables.	58–9	72–3	42–5	189
	5b More about place value	• Recognise the place value of each digit in a 3-digit number. • Compare and order numbers to 1000. • Identify and represent numbers to 750 using different representations. • Read and write numbers to 750 in numerals and words. • Measure and compare mass (kg/g).	60–1	74–5	46–9	190
	5c Tenths	• Count up and down in tenths; recognise that tenths arise from dividing an object into ten equal parts and dividing single-digit numbers or quantities by ten. • Solve number and practical problems.	62–3	76–7	50–2	191

Unit	Concept	Objectives	Textbook	Teacher's Guide	Practice Book	Homework Sheets
6	6a Adding 3-digit numbers	• Add numbers mentally using number facts, place value. • Add numbers with up to three digits using the formal written methods of columnar addition where appropriate. • Estimate and use inverse operations to check answers to a calculation. • Solve addition and subtraction problems in contexts, deciding which operations and methods to use and why.	70–1	84–5	53–5	192
	6b Subtracting 3-digit numbers	• Subtract numbers mentally using number facts, place value. • Subtract numbers with up to three digits using the formal written methods of columnar subtraction where appropriate. • Estimate and use inverse operations to check answers to a calculation. • Solve addition and subtraction problems in contexts, deciding which operations and methods to use and why.	72–3	86–7	56–8	193
7	7a Showing numbers in different ways	• Identify, represent and compare numbers to 1000 using different representations. • Count up and down in tenths, recognise that tenths arise from dividing an object into ten equal parts and dividing single digits or quantities by ten.	80–1	94–5	59–61	194
	7b Unit and non-unit fractions	• Recognise and use fractions as numbers; unit and non-unit fractions with small denominators. • Compare and order unit fractions and fractions with the same denominator. • Solve number and practical problems.	82–3	96–7	62–4	195
	7c Adding and subtracting fractions	• Add and subtract fractions with the same denominator within one whole.	84–5	98–9	65–7	196
8	8a Multiplication tables	• Recall and use multiplication and division facts for the three, four and eight multiplication tables. • Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for 2-digit numbers multiplied by single-digit numbers, using mental and progressing to formal written methods.	92–3	106–7	68–71	197
	8b Multiplying and dividing by 5 and 20	• Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for 2-digit numbers multiplied by single-digit numbers, using mental and progressing to formal written methods.	94–5	108–9	72–4	198
	8c Missing number problems and scaling	• Solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems in which n objects are connected to m objects..	96–7	110–11	75–7	199
9	9a Lines	• Identify horizontal and vertical lines and pairs of perpendicular and parallel lines. • Draw 2-D shapes and make 3-D shapes using modeling materials. • Present data using tables.	104–5	118–19	78–80	200
	9b Turning	• Recognise angles as a property of shape or a description of a turn. • Identify right angles. • Recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn. • Recognise 3-D shapes in different orientations and describe them.	106–7	120–1	81–3	201
10	10a Reading and writing numbers	• Read and write numbers up to 1000 in numerals and words. • Tell and read the time from an analogue clock, including using Roman numerals, and 12-hour clocks. • Estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hours; use vocabulary such as o'clock, a.m./p.m., morning, afternoon, noon and midnight.	114–15	128–9	84–7	202
	10b Using place value	• Identify, represent and compare numbers to 1000 using different representations. • Count up and down in tenths, recognise that tenths arise from dividing an object into ten equal parts and dividing single-digit numbers or quantities by ten. • Interpret data using bar charts. • Know the number of seconds in a minute and the number of days in each month, year and leap year. • Compare durations of events.	116–17	130–1	88–90	203

Unit	Concept	Objectives	Textbook	Teacher's Guide	Practice Book	Homework Sheets
11	11a Adding 3-digit numbers	• Add numbers mentally including a 3-digit number and ones, tens and hundreds. • Add numbers with up to three digits using the formal written methods of columnar addition. • Estimate the answer to a calculation and use inverse operations to check answers. • Solve problems, including missing number problems, using number facts, place value and more complex addition.	124–5	138–9	91–3	204
	11b Subtracting 3-digit numbers	• Subtract numbers mentally including a 3-digit number and ones, tens and hundreds. • Subtract numbers with up to three digits using formal written methods of columnar subtraction. • Estimate the answer to a calculation and use inverse operations to check answers. • Solve problems, including missing number problems, using number facts, place value and more complex subtraction.	126–7	140–1	94–6	205
12	12a Representing whole numbers and tenths	• Identify, represent and compare numbers to 1000 using different representations. • Count up and down in tenths, recognise that tenths arise from dividing an object into ten equal parts and dividing single-digit numbers or quantities by ten. • Solve number and practical problems involving measure and compare lengths (m/cm/mm).	134–5	148–9	97–100	206
	12b Finding and using unit and non-unit fractions	• Recognise and use fractions as numbers; unit and non-unit fractions with small denominators. • Compare and order unit fractions and fractions with the same denominator. • Add and subtract amounts of money to give change, using both £ and p in practical contexts.	136–7	150–1	101–4	207
	12c Equivalent fractions	• Recognise and show, using diagrams, equivalent fractions with small denominators. • Add and subtract fractions with the same denominator within one whole. • Solve number and practical problems involving measure; compare, add and subtract: mass (kg/g).	138–9	152–3	105–7	208
13	13a Towards the written method for multiplication	• Write and calculate mathematical statements for multiplication and division using known multiplication tables, including for 2-digit numbers multiplied by single-digit numbers, using mental and progressing to formal methods.	146–7	160–1	108–13	209
	13b Towards the written method for division	• Write and calculate mathematical statements for multiplication and division using known multiplication tables, including for 2-digit numbers multiplied by single-digit numbers, using mental and progressing to formal methods.	148–9	162–3	114–16	210
14	14a All about 2-D shapes	• Draw 2-D shapes and describe them. • Interpret and present data using bar charts, pictograms and tables.	156–7	170–1	117–19	211
	14b Measuring perimeter	• Measure, compare, add and subtract: lengths (m/cm/mm). • Measure the perimeter of simple 2-D shapes. • Interpret and present data using bar charts, pictograms and tables.	158–9	172–3	120–3	212