Power Maths White Rose Maths Edition to National curriculum matching chart KS2

Year 3

Power Maths Year 3			National curriculum programmes of study		
Term	**Unit**	**Lesson titles**	**Year**	**Domain**	**Pupils should be taught to:**
Textbook 3A	Unit 1, Place value within 1,000	• Represent and partition numbers to 100	2	Number – number and place value	• Recognise the place value of each digit in a two-digit number (10s, 1s).
			3	Number – number and place value	• Identify, represent and estimate numbers using different representations, including the number line.
		• Number line to 100	3	Number – number and place value	• Compare and order numbers up to 1,000. • Identify, represent and estimate numbers using different representations, including the number line.
		• 100s	3	Number – number and place value	• Count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number. • Recognise the place value of each digit in a three-digit number (100s, 10s, 1s).
		• Represent numbers to 1,000	3	Number – number and place value	• Identify, represent and estimate numbers using different representations. • Recognise the place value of each digit in a three-digit number (100s, 10s, 1s).
		• Partition numbers to 1,000	3	Number – number and place value	• Recognise the place value of each digit in a three-digit number (100s, 10s, 1s). • Identify, represent and estimate numbers using different representations, including the number line.
		• Partition numbers to 1,000 flexibly	3	Number – number and place value	• Recognise the place value of each digit in a three-digit number (100s, 10s, 1s).
		• 100s, 10s and 1s	3	Number – number and place value	• Recognise the place value of each digit in a three-digit number (100s, 10s, 1s). • Identify, represent and estimate numbers using different representations, including the number line.

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Term	**Unit**	**Lesson titles**	**Year**	**Domain**	**Pupils should be taught to:**
		● Use a number line to 1,000	3	Number – number and place value	● Identify, represent and estimate numbers using different representations. ● Recognise the place value of each digit in a three-digit number (100s, 10s, 1s).
		● Estimate on a number line to 1,000	3	Number – number and place value	● Identify, represent and estimate numbers using different representations.
		● Find 1, 10 and 100 more or less	3	Number – number and place value	● Count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number. ● Recognise the place value of each digit in a three-digit number (100s, 10s, 1s).
		● Compare numbers to 1,000	3	Number – number and place value	● Compare and order numbers up to 1,000. ● Identify, represent and estimate numbers using different representations, including the number line.
		● Order numbers to 1,000	3	Number – number and place value	● Compare and order numbers up to 1,000. ● Recognise the place value of each digit in a three-digit number (100s, 10s, 1s).
		● Count in 50s	3	Number – number and place value	● Count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number.
	Unit 2, Addition and subtraction (1)	● Use known number bonds	2	Number – addition and subtraction	● Recognise the place value of each digit in a two-digit number (10s, 1s).
			3		● Add and subtract numbers mentally, including: a three-digit number and ones, a three-digit number and tens, a three-digit number and hundreds.

***Power Maths* Year 3**			**National curriculum programmes of study**		
Term	**Unit**	**Lesson titles**	**Year**	**Domain**	**Pupils should be taught to:**
		● Add/subtract 1s	3	Number – addition and subtraction	● Add and subtract numbers mentally, including: a three-digit number and ones, a three-digit number and tens, a three-digit number and hundreds. ● Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.
		● Add/subtract 10s	3	Number – addition and subtraction	● Add and subtract numbers mentally, including: a three-digit number and ones, a three-digit number and tens, a three-digit number and hundreds.
		● Add/subtract 100s	3	Number – addition and subtraction	● Add and subtract numbers mentally, including: a three-digit number and ones, a three-digit number and tens, a three-digit number and hundreds.
		● Spot the pattern	3	Number – addition and subtraction	● Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction. ● Add and subtract numbers mentally, including: a three-digit number and ones, a three-digit number and tens, a three-digit number and hundreds.
		● Add 1s across 10	3	Number – addition and subtraction	● Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction. ● Add and subtract numbers mentally, including: a three-digit number and ones, a three-digit number and tens, a three-digit number and hundreds.

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Term	**Unit**	**Lesson titles**	**Year**	**Domain**	**Pupils should be taught to:**
		● Add 10s across 100	3	Number – addition and subtraction	● Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction. ● Add and subtract numbers mentally, including: a three-digit number and ones, a three-digit number and tens, a three-digit number and hundreds.
		● Subtract 1s across 10	3	Number – addition and subtraction	● Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction. ● Add and subtract numbers mentally, including: a three-digit number and ones, a three-digit number and tens, a three-digit number and hundreds.
		● Subtract 10s across 100	3	Number – addition and subtraction	● Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction. ● Add and subtract numbers mentally, including: a three-digit number and ones, a three-digit number and tens, a three-digit number and hundreds.
		● Make connections	3	Number – addition and subtraction	● Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.
	Unit 3, Addition and subtraction (2)	● Add two numbers	3	Number – addition and subtraction	● Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction. ● Add and subtract numbers mentally, including: a three-digit number and ones, a three-digit number and tens, a three-digit number and hundreds.

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Term	**Unit**	**Lesson titles**	**Year**	**Domain**	**Pupils should be taught to:**
		● Subtract two numbers	3	Number – addition and subtraction	● Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction. ● Add and subtract numbers mentally, including: a three-digit number and ones, a three-digit number and tens, a three-digit number and hundreds.
		● Add two numbers (across 10)	3	Number – addition and subtraction	● Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction. ● Add and subtract numbers mentally, including: a three-digit number and ones, a three-digit number and tens, a three-digit number and hundreds.
		● Add two numbers (across 100)	3	Number – addition and subtraction	● Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction. ● Add and subtract numbers mentally, including: a three-digit number and ones, a three-digit number and tens, a three-digit number and hundreds.
		● Subtract two numbers (across 10)	3	Number – addition and subtraction	● Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction. ● Add and subtract numbers mentally, including: a three-digit number and ones, a three-digit number and tens, a three-digit number and hundreds.
		● Subtract two numbers (across 100)	3	Number – addition and subtraction	● Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction. ● Add and subtract numbers mentally, including: a three-digit number and ones, a three-digit number and tens, a three-digit number and hundreds.

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Term	**Unit**	**Lesson titles**	**Year**	**Domain**	**Pupils should be taught to:**
		● Add a 3-digit and a 2-digit number	3	Number – addition and subtraction	● Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction. ● Add and subtract numbers mentally, including: a three-digit number and ones, a three-digit number and tens, a three-digit number and hundreds.
		● Subtract a 2-digit number from a 3-digit number	3	Number – addition and subtraction	● Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction. ● Add and subtract numbers mentally, including: a three-digit number and ones, a three-digit number and tens, a three-digit number and hundreds.
		● Complements to 100	3	Number – addition and subtraction	● Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction.
		● Estimate answers	3	Number – addition and subtraction	● Estimate the answer to a calculation and use inverse operations to check answers.
		● Inverse operations	3	Number – addition and subtraction	● Estimate the answer to a calculation and use inverse operations to check answers.
		● Problem solving (1)	3	Number – addition and subtraction	● Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.
		● Problem solving (2)	3	Number – addition and subtraction	● Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.

Power Maths Year 3			National curriculum programmes of study		
Term	**Unit**	**Lesson titles**	**Year**	**Domain**	**Pupils should be taught to:**
	Unit 4, Multiplication and division (1)	• Multiplication – equal groups	3	Number – multiplication and division	• Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods. • Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables.
		• Use arrays	3	Number – multiplication and division	• Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods. • Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables.
		• Multiples of 2	3	Number – multiplication and division	• Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods. • Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables.

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Term	**Unit**	**Lesson titles**	**Year**	**Domain**	**Pupils should be taught to:**
		● Multiples of 5 and 10	3	Number – multiplication and division	● Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods. ● Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables.
		● Share and group	3	Number – multiplication and division	● Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods. ● Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables.
	Unit 5, Multiplication and division (2)	● Multiply by 3	3	Number – multiplication and division	● Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables. ● Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods.

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Term	**Unit**	**Lesson titles**	**Year**	**Domain**	**Pupils should be taught to:**
		● Divide by 3	3	Number – multiplication and division	● Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables. ● Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods.
		● The 3 times-table	3	Number – multiplication and division	● Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables. ● Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods.
		● Multiply by 4	3	Number – multiplication and division	● Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables. ● Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods.

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Term	**Unit**	**Lesson titles**	**Year**	**Domain**	**Pupils should be taught to:**
		● Divide by 4	3	Number – multiplication and division	● Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables. ● Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods.
		● The 4 times-table	3	Number – multiplication and division	● Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables. ● Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods.
		● Multiply by 8	3	Number – multiplication and division	● Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables. ● Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods.

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Term	**Unit**	**Lesson titles**	**Year**	**Domain**	**Pupils should be taught to:**
		● Divide by 8	3	Number – multiplication and division	● Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables. ● Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods.
		● The 8 times-table	3	Number – multiplication and division	● Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables. ● Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods.
		● Problem solving – multiplication and division (1)	3	Number – multiplication and division	● Solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects. ● Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods.

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Term	**Unit**	**Lesson titles**	**Year**	**Domain**	**Pupils should be taught to:**
		• Problem solving – multiplication and division (2)	3	Number – multiplication and division	• Solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects. • Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods.
		• Understand divisibility (1)	3	Number – multiplication and division	• Solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects. • Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods.

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Term	**Unit**	**Lesson titles**	**Year**	**Domain**	**Pupils should be taught to:**
		● Understand divisibility (2)	3	Number – multiplication and division	● Solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects. ● Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods.
Textbook 3B	Unit 6, Multiplication and division (3)	● Multiples of 10	3	Number – multiplication and division	● Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods.
		● Related calculations	3	Number – multiplication and division	● Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods.
		● Reasoning about multiplication	3	Number – multiplication and division	● Solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects.

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Term	**Unit**	**Lesson titles**	**Year**	**Domain**	**Pupils should be taught to:**
		• Multiply 2-digits by 1-digit – no exchange	3	Number – multiplication and division	• Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods.
		• Multiply 2-digits by 1-digit – exchange	3	Number – multiplication and division	• Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods.
		• Expanded written method	3	Number – multiplication and division	• Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods.
		• Link multiplication and division	3	Number – multiplication and division	• Solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects.
		• Divide 2-digits by 1-digit – no exchange	3	Number – multiplication and division	• Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods.

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Term	**Unit**	**Lesson titles**	**Year**	**Domain**	**Pupils should be taught to:**
		• Divide 2-digits by 1-digit – flexible partitioning	3	Number – multiplication and division	• Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods.
		• Divide 2-digits by 1-digit with remainders	3	Number – multiplication and division	• Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods.
		• How many ways?	3	Number – multiplication and division	• Solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects.
		• Problem solving – mixed problems (1)	3	Number – multiplication and division	• Solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects. • Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods.

Power Maths Year 3			National curriculum programmes of study		
Term	**Unit**	**Lesson titles**	**Year**	**Domain**	**Pupils should be taught to:**
		• Problem solving – mixed problems (2)	3	Number – multiplication and division	• Solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects. • Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods.
	Unit 7, Length and perimeter	• Measure in m and cm	3	Measurement	• Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml).
		• Measure in cm and mm	3	Measurement	• Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml).
		• Metres, centimetres and millimetres	3	Measurement	• Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml).
		• Equivalent lengths (m and cm)	3	Measurement	• Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml).
		• Equivalent lengths (mm and cm)	3	Measurement	• Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml).
		• Compare lengths	3	Measurement	• Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml).
		• Add lengths	3	Measurement	• Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml).

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Term	**Unit**	**Lesson titles**	**Year**	**Domain**	**Pupils should be taught to:**
		• Subtract lengths	3	Measurement	• Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml).
		• Measure perimeter	3	Measurement	• Measure the perimeter of simple 2D shapes.
		• Calculate perimeter	3	Measurement	• Measure the perimeter of simple 2D shapes.
		• Problem solving – length	3	Measurement	• Measure the perimeter of simple 2D shapes.
	Unit 8, Fractions (1)	• Understand the denominator of unit fractions	3	Number – fractions	• Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators.
		• Compare and order unit fractions	3	Number – fractions	• Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators.
		• Understand the numerator of non-unit fractions	3	Number – fractions	• Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators.
		• Understand the whole	3	Number – fractions	• Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators.
		• Compare and order non-unit fractions	3	Number – fractions	• Compare and order unit fractions, and fractions with the same denominators.
		• Divisions on a number line	3	Number – fractions	• Compare and order unit fractions, and fractions with the same denominators.
		• Count in fractions on a number line	3	Number – fractions	• Compare and order unit fractions, and fractions with the same denominators.
		• Equivalent fractions as bar models	3	Number – fractions	• Recognise and show, using diagrams, equivalent fractions with small denominators.
		• Equivalent fractions on a number line	3	Number – fractions	• Recognise and show, using diagrams, equivalent fractions with small denominators.

Power Maths Year 3			National curriculum programmes of study		
Term	**Unit**	**Lesson titles**	**Year**	**Domain**	**Pupils should be taught to:**
		• Equivalent fractions	3	Number – fractions	• Recognise and show, using diagrams, equivalent fractions with small denominators.
	Unit 9, Mass	• Use scales	3	Measurement	• Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml).
		• Measure mass	3	Measurement	• Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml).
		• Measure mass in kilograms and grams	3	Measurement	• Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml).
		• Equivalent masses	3	Measurement	• Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml).
		• Compare mass	3	Measurement	• Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml).
		• Add and subtract mass	3	Measurement	• Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml).
		• Problem solving – mass	3	Measurement	• Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml).
	Unit 10, Capacity	• Measure capacity and volume in litres and millilitres	3	Measurement	• Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml).
		• Measure in litres and millilitres	3	Measurement	• Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml).
		• Equivalent capacities and volumes (litres and millilitres)	3	Measurement	• Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml).

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Term	**Unit**	**Lesson titles**	**Year**	**Domain**	**Pupils should be taught to:**
		• Compare capacity and volume	3	Measurement	• Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml).
		• Add and subtract capacity and volume	3	Measurement	• Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml).
		• Problem solving – capacity	3	Measurement	• Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml).
Textbook 3C	Unit 11, Fractions (2)	• Add fractions	3	Number – fractions	• Add and subtract fractions with the same denominator within one whole [for example, $\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$].
		• Subtract fractions	3	Number – fractions	• Add and subtract fractions with the same denominator within one whole [for example, $\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$].
		• Partition the whole	3	Number – fractions	• Add and subtract fractions with the same denominator within one whole [for example, $\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$].
		• Problem solving – add and subtract fractions	3	Number – fractions	• Solve problems that involve all of the above.
		• Unit fractions of a set of objects	3	Number – fractions	• Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators.
		• Non-unit fractions of a set of objects	3	Number – fractions	• Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators.
		• Reason with fractions of an amount	3	Number – fractions	• Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators.

Power Maths Year 3			National curriculum programmes of study		
Term	**Unit**	**Lesson titles**	**Year**	**Domain**	**Pupils should be taught to:**
		• Problem solving – fractions of measures	3	Number – fractions	• Solve problems that involve all of the above.
	Unit 12, Money	• Pounds and pence	3	Measurement	• Add and subtract amounts of money to give change, using both £ and p in practical contexts.
		• Convert pounds and pence	3	Measurement	• Add and subtract amounts of money to give change, using both £ and p in practical contexts.
		• Add money	3	Measurement	• Add and subtract amounts of money to give change, using both £ and p in practical contexts.
		• Subtract money	3	Measurement	• Add and subtract amounts of money to give change, using both £ and p in practical contexts.
		• Find change	3	Measurement	• Add and subtract amounts of money to give change, using both £ and p in practical contexts.
	Unit 13, Time	• Roman numerals to 12	3	Measurement	• Tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks.
		• Tell the time to 5 minutes	3	Measurement	• Tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks.
		• Tell the time to the minute	3	Measurement	• Tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-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.

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Term	**Unit**	**Lesson titles**	**Year**	**Domain**	**Pupils should be taught to:**
		● Read time on a digital clock	3	Measurement	● 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. ● Tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks.
		● Use am and pm	3	Measurement	● 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. ● Tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks.
		● Years, months and days	3	Measurement	● Know the number of seconds in a minute and the number of days in each month, year and leap year.
		● Days and hours	3	Measurement	● 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. ● Tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks.

***Power Maths* Year 3**			**National curriculum programmes of study**		
Term	**Unit**	**Lesson titles**	**Year**	**Domain**	**Pupils should be taught to:**
		● Hours and minutes – start and end times	3	Measurement	● 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. ● Compare durations of events [for example to calculate the time taken by particular events or tasks].
		● Hours and minutes – durations	3	Measurement	● Compare durations of events [for example to calculate the time taken by particular events or tasks. ● 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.
		● Hours and minutes – compare durations	3	Measurement	● 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. ● Compare durations of events [for example to calculate the time taken by particular events or tasks].
		● Minutes and seconds	3	Measurement	● 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.

***Power Maths* Year 3**			**National curriculum programmes of study**		
Term	**Unit**	**Lesson titles**	**Year**	**Domain**	**Pupils should be taught to:**
		● Solve problems with time	3	Measurement	● 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.
	Unit 14, Angles and properties of shapes	● Turns and angles	3	Geometry – properties of shapes	● 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; identify whether angles are greater than or less than a right angle.
		● Right angles in shapes	3	Geometry – properties of shapes	● 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; identify whether angles are greater than or less than a right angle.
		● Compare angles	3	Geometry – properties of shapes	● Identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn; identify whether angles are greater than or less than a right angle. ● Recognise angles as a property of shape or a description of a turn.

***Power Maths* Year 3**			**National curriculum programmes of study**		
Term	**Unit**	**Lesson titles**	**Year**	**Domain**	**Pupils should be taught to:**
		• Measure and draw accurately	3	Geometry – properties of shapes	• Draw 2D shapes and make 3D shapes using modelling materials; recognise 3D shapes in different orientations and describe them. • Identify horizontal and vertical lines and pairs of perpendicular and parallel lines.
		• Horizontal and vertical	3	Geometry – properties of shapes	• Identify horizontal and vertical lines and pairs of perpendicular and parallel lines.
		• Parallel and perpendicular	3	Geometry – properties of shapes	• Identify horizontal and vertical lines and pairs of perpendicular and parallel lines.
		• Recognise, draw and describe 2D shapes	3	Geometry – properties of shapes	• Draw 2D shapes and make 3D shapes using modelling materials; recognise 3D shapes in different orientations and describe them.
		• Recognise and describe 3D shapes	3	Geometry – properties of shapes	• Draw 2D shapes and make 3D shapes using modelling materials; recognise 3D shapes in different orientations and describe them.
		• Make 3D shapes	3	Geometry – properties of shapes	• Draw 2D shapes and make 3D shapes using modelling materials; recognise 3D shapes in different orientations and describe them.
	Unit 15, Statistics	• Interpret pictograms (1)	3	Statistics	• Interpret and present data using bar charts, pictograms and tables. • Solve one-step and two-step questions [for example, 'How many more?' and 'How many fewer?'] using information presented in scaled bar charts and pictograms and tables.
		• Interpret pictograms (2)	3	Statistics	• Interpret and present data using bar charts, pictograms and tables.

***Power Maths* Year 3**			**National curriculum programmes of study**		
Term	**Unit**	**Lesson titles**	**Year**	**Domain**	**Pupils should be taught to:**
		• Draw pictograms	3	Statistics	• Interpret and present data using bar charts, pictograms and tables. • Solve one-step and two-step questions [for example, 'How many more?' and 'How many fewer?'] using information presented in scaled bar charts and pictograms and tables.
		• Interpret bar charts (1)	3	Statistics	• Interpret and present data using bar charts, pictograms and tables.
		• Interpret bar charts (2)	3	Statistics	• Interpret and present data using bar charts, pictograms and tables. • Solve one-step and two-step questions [for example, 'How many more?' and 'How many fewer?'] using information presented in scaled bar charts and pictograms and tables.
		• Collect and represent data in a bar chart	3	Statistics	• Interpret and present data using bar charts, pictograms and tables.
		• Simple two-way tables	3	Statistics	• Interpret and present data using bar charts, pictograms and tables.

Year 4

Power Maths Year 4			National curriculum programmes of study		
Term	**Unit**	**Lesson titles**	**Year**	**Domain**	**Pupils should be taught to:**
Textbook 4A	Unit 1, Place value – 4-digit numbers (1)	• Represent and partition numbers to 1,000	4	Number – number and place value	• Recognise the place value of each digit in a four-digit number (1,000s, 100s, 10s, and 1s).
		• Number line to 1,000	4	Number – number and place value	• Recognise the place value of each digit in a four-digit number (1,000s, 100s, 10s, and 1s).
		• Multiples of 1,000	4	Number – number and place value	• Count in multiples of 6, 7, 9, 25 and 1,000.
		• 4-digit numbers	4	Number – number and place value	• Identify, represent and estimate numbers using different representations.
		• Partition 4-digit numbers	4	Number – number and place value	• Recognise the place value of each digit in a four-digit number (1,000s, 100s, 10s, and 1s).
		• Partition 4-digit numbers flexibly	4	Number – number and place value	• Recognise the place value of each digit in a four-digit number (1,000s, 100s, 10s, and 1s). • Identify, represent and estimate numbers using different representations.
		• 1, 10, 100, 1,000 more or less	4	Number – number and place value	• Find 1,000 more or less than a given number.
			3	Number – number and place value	• Count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number.
		• 1,000s, 100s, 10s and 1s	4	Number – number and place value	• Recognise the place value of each digit in a four-digit number (1,000s, 100s, 10s, and 1s). • Identify, represent and estimate numbers using different representations.
	Unit 2, Place value – 4-digit numbers (2)	• Number line to 10,000	4	Number – number and place value	• Identify, represent and estimate numbers using different representations. • Recognise the place value of each digit in a four-digit number (1,000s, 100s, 10s, and 1s).

Power Maths Year 4			National curriculum programmes of study		
Term	**Unit**	**Lesson titles**	**Year**	**Domain**	**Pupils should be taught to:**
		● Between two multiples	4	Number – number and place value	● Recognise the place value of each digit in a four-digit number (1,000s, 100s, 10s, and 1s). ● Count in multiples of 6, 7, 9, 25 and 1000.
		● Estimate on a number line to 10,000	4	Number – number and place value	● Order and compare numbers beyond 1,000. ● Identify, represent and estimate numbers using different representations.
		● Compare and order numbers to 10,000	4	Number – number and place value	● Order and compare numbers beyond 1,000. ● Identify, represent and estimate numbers using different representations.
		● Round to the nearest 1,000	4	Number – number and place value	● Round any number to the nearest 10, 100 or 1,000.
		● Round to the nearest 100	4	Number – number and place value	● Round any number to the nearest 10, 100 or 1,000.
		● Round to the nearest 10	4	Number – number and place value	● Round any number to the nearest 10, 100 or 1,000.
		● Round to the nearest 1,000, 100 or 10	4	Number – number and place value	● Round any number to the nearest 10, 100 or 1,000.
	Unit 3, Addition and subtraction	● Add and subtract 1s, 10s, 100s, 1,000s	4	Number – addition and subtraction	● Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate.
				Number – number and place value	● Solve number and practical problems that involve all of the above and with increasingly large positive numbers.
		● Add two 4-digit numbers	4	Number – addition and subtraction	● Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate.

***Power Maths* Year 4**			**National curriculum programmes of study**		
Term	**Unit**	**Lesson titles**	**Year**	**Domain**	**Pupils should be taught to:**
		• Add two 4-digit numbers – one exchange	4	Number – addition and subtraction	• Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate.
		• Add with more than one exchange	4	Number – addition and subtraction	• Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate.
		• Subtract two 4-digit numbers	4	Number – addition and subtraction	• Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate.
		• Subtract two 4-digit numbers – one exchange	4	Number – addition and subtraction	• Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate.
		• Subtract two 4-digit numbers – more than one exchange	4	Number – addition and subtraction	• Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate.
		• Exchange across two columns	4	Number – addition and subtraction	• Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate.
		• Efficient methods	4	Number – addition and subtraction	• Estimate and use inverse operations to check answers to a calculation. • Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate.
		• Equivalent difference	4	Number – addition and subtraction	• Estimate and use inverse operations to check answers to a calculation.
		• Estimate answers	4	Number – addition and subtraction	• Estimate and use inverse operations to check answers to a calculation.

***Power Maths* Year 4**			**National curriculum programmes of study**		
Term	**Unit**	**Lesson titles**	**Year**	**Domain**	**Pupils should be taught to:**
		● Check strategies	4	Number – addition and subtraction	● Estimate and use inverse operations to check answers to a calculation.
		● Problem solving – one step	4	Number – addition and subtraction	● Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.
		● Problem solving – comparison	4	Number – addition and subtraction	● Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.
		● Problem solving – two steps	4	Number – addition and subtraction	● Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.
		● Problem solving – multi-step problems	4	Number – addition and subtraction	● Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.
	Unit 4, Measure – area	● What is area?	4	Measurement	● Find the area of rectilinear shapes by counting squares.
		● Measure area using squares	4	Measurement	● Find the area of rectilinear shapes by counting squares.
		● Count squares	4	Measurement	● Find the area of rectilinear shapes by counting squares.
		● Make shapes	4	Measurement	● Find the area of rectilinear shapes by counting squares.
		● Compare area	4	Measurement	● Estimate, compare and calculate different measures, including money in pounds and pence.
	Unit 5, Multiplication and division (1)	● Multiples of 3	4	Number – multiplication and division	● Recall multiplication and division facts for multiplication tables up to 12 × 12.
		● Multiply and divide by 6	4	Number – multiplication and division	● Recall multiplication and division facts for multiplication tables up to 12 × 12.
		● 6 times-table and division facts	4	Number – multiplication and division	● Recall multiplication and division facts for multiplication tables up to 12 × 12.
		● Multiply and divide by 9	4	Number – multiplication and division	● Recall multiplication and division facts for multiplication tables up to 12 × 12.

***Power Maths* Year 4**			**National curriculum programmes of study**		
Term	**Unit**	**Lesson titles**	**Year**	**Domain**	**Pupils should be taught to:**
		• 9 times-table and division facts	4	Number – multiplication and division	• Recall multiplication and division facts for multiplication tables up to 12 × 12.
		• The 3, 6 and 9 times-tables	4	Number – multiplication and division	• Recall multiplication and division facts for multiplication tables up to 12 × 12.
		• Multiply and divide by 7	4	Number – multiplication and division	• Recall multiplication and division facts for multiplication tables up to 12 × 12.
		• 7 times-table and division facts	4	Number – multiplication and division	• Recall multiplication and division facts for multiplication tables up to 12 × 12.
		• 11 and 12 times-tables and division facts	4	Number – multiplication and division	• Recall multiplication and division facts for multiplication tables up to 12 × 12.
		• Multiply by 1 and 0	4	Number – multiplication and division	• Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers.
		• Divide by 1 and itself	4	Number – multiplication and division	• Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers.
		• Multiply three numbers	4	Number – multiplication and division	• Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers.
Textbook 4B	Unit 6, Multiplication and division (2)	• Factor pairs	4	Number – multiplication and division	• Recognise and use factor pairs and commutativity in mental calculations.
		• Multiply and divide by 10	4	Number – multiplication and division	• Recall multiplication and division facts for multiplication tables up to 12 × 12. • Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers.

Power Maths Year 4			National curriculum programmes of study		
Term	**Unit**	**Lesson titles**	**Year**	**Domain**	**Pupils should be taught to:**
		● Multiply and divide by 100	4	Number – multiplication and division	● Recall multiplication and division facts for multiplication tables up to 12 × 12. ● Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers.
		● Related facts – multiplication	4	Number – multiplication and division	● Recall multiplication and division facts for multiplication tables up to 12 × 12.
		● Related facts – division	4	Number – multiplication and division	● Recall multiplication and division facts for multiplication tables up to 12 × 12.
		● Multiply and add	4	Number – multiplication and division	● Solve problems involving multiplying and adding, including using the distributive law to multiply two-digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects.
		● Informal written methods	4	Number – multiplication and division	● Multiply two-digit and three-digit numbers by a one-digit number using formal written layout.
		● Multiply 2 digits by 1 digit	4	Number – multiplication and division	● Multiply two-digit and three-digit numbers by a one-digit number using formal written layout.
		● Multiply 3 digits by 1 digit	4	Number – multiplication and division	● Multiply two-digit and three-digit numbers by a one-digit number using formal written layout.
		● Solve multiplication problems	4	Number – multiplication and division	● Solve problems involving multiplying and adding, including using the distributive law to multiply two-digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects.

***Power Maths* Year 4**			**National curriculum programmes of study**		
Term	**Unit**	**Lesson titles**	**Year**	**Domain**	**Pupils should be taught to:**
		● Basic division	4	Number – multiplication and division	● Recognise and use factor pairs and commutativity in mental calculations. ● Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers.
		● Division and remainders	4	Number – multiplication and division	● Multiply two-digit and three-digit numbers by a one-digit number using formal written layout. ● Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers.
		● Divide 2-digit numbers	4	Number – multiplication and division	● Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers.
		● Divide 3-digit numbers	4	Number – multiplication and division	● Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers.
		● Correspondence problems	4	Number – multiplication and division	● Recognise and use factor pairs and commutativity in mental calculations. ● Solve problems involving multiplying and adding, including using the distributive law to multiply two-digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects.

***Power Maths* Year 4**			**National curriculum programmes of study**		
Term	**Unit**	**Lesson titles**	**Year**	**Domain**	**Pupils should be taught to:**
		• Efficient multiplication	4	Number – multiplication and division	• Solve problems involving multiplying and adding, including using the distributive law to multiply two-digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects. • Recognise and use factor pairs and commutativity in mental calculations.
	Unit 7, Length and perimeter	• Measure in km and m	4	Measurement	• Convert between different units of measure [for example, kilometre to metre; hour to minute].
		• Perimeter on a grid	4	Measurement	• Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres.
		• Perimeter of a rectangle	4	Measurement	• Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres.
		• Perimeter of rectilinear shapes	4	Measurement	• Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres.
		• Find missing lengths in rectilinear shapes	4	Measurement	• Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres.
		• Perimeter of polygons	4	Measurement	• Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres.
	Unit 8, Fractions (1)	• Count beyond 1	4	Number – fractions	• Non-statutory guidance: They practise counting using simple fractions and decimals, both forwards and backwards.
			3	Number – fractions	• Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators.

***Power Maths* Year 4**			**National curriculum programmes of study**		
Term	**Unit**	**Lesson titles**	**Year**	**Domain**	**Pupils should be taught to:**
		• Partition a mixed number	4	Number – fractions	• Ready to progress criteria (4F–1): Reason about the location of mixed numbers in the linear number system.
			3	Number – fractions	• Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators.
		• Number lines with mixed numbers	4	Number – fractions	• Ready to progress criteria (4F–1): Reason about the location of mixed numbers in the linear number system.
			3	Number – fractions	• Compare and order unit fractions, and fractions with the same denominators.
		• Compare and order mixed numbers	4	Number – fractions	• Ready to progress criteria (4F–1): Reason about the location of mixed numbers in the linear number system.
			3	Number – fractions	• Compare and order unit fractions, and fractions with the same denominators.
		• Convert mixed numbers to improper fractions	4	Number – fractions	• Ready to progress criteria (4F–2): Convert mixed numbers to improper fractions and vice versa.
			3	Number – fractions	• Recognise and show, using diagrams, equivalent fractions with small denominators.
		• Convert improper fractions to mixed numbers	4	Number – fractions	• Ready to progress criteria (4F–2): Convert mixed numbers to improper fractions and vice versa
			3	Number – fractions	• Recognise and show, using diagrams, equivalent fractions with small denominators.
		• Equivalent fractions	4	Number – fractions	• Recognise and show, using diagrams, families of common equivalent fractions.
			3	Number – fractions	• Compare and order unit fractions, and fractions with the same denominators.

Power Maths Year 4			National curriculum programmes of study		
Term	**Unit**	**Lesson titles**	**Year**	**Domain**	**Pupils should be taught to:**
		● Equivalent fraction families	4	Number – fractions	● Recognise and show, using diagrams, families of common equivalent fractions.
			3	Number – fractions	● Recognise and show, using diagrams, equivalent fractions with small denominators.
		● Simplify fractions	4	Number – fractions	● Recognise and show, using diagrams, families of common equivalent fractions.
			3	Number – fractions	● Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators.
	Unit 9, Fractions (2)	● Add and subtract two or more fractions	4	Number – fractions	● Add and subtract fractions with the same denominator.
		● Add fractions and mixed numbers	4	Number – fractions	● Add and subtract fractions with the same denominator.
		● Subtract from mixed numbers	4	Number – fractions	● Add and subtract fractions with the same denominator.
		● Subtract from whole amounts	4	Number – fractions	● Add and subtract fractions with the same denominator.
		● Problem solving – add and subtract fractions (1)	4	Number – fractions	● Solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number.
		● Problem solving – add and subtract fractions (2)	4	Number – fractions	● Solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number.
		● Fraction of an amount	4	Number – fractions	● Solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number.

Power Maths Year 4			National curriculum programmes of study		
Term	**Unit**	**Lesson titles**	**Year**	**Domain**	**Pupils should be taught to:**
		● Problem solving – fraction of an amount	4	Number – fractions	● Solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number.
	Unit 10, Decimals (1)	● Tenths as fractions	4	Number – fractions (including decimals and percentages)	● Recognise and write decimal equivalents of any number of tenths or hundredths.
		● Tenths as decimals	4	Number – fractions (including decimals and percentages)	● Recognise and write decimal equivalents of any number of tenths or hundredths.
		● Tenths on a place value grid	4	Number – fractions (including decimals and percentages)	● Recognise and write decimal equivalents of any number of tenths or hundredths.
		● Tenths on a number line (1)	4	Number – fractions (including decimals and percentages)	● Recognise and write decimal equivalents of any number of tenths or hundredths.
		● Tenths on a number line (2)	4	Number – fractions (including decimals and percentages)	● Recognise and write decimal equivalents of any number of tenths or hundredths.
		● Divide 1 digit by 10	4	Number – fractions (including decimals and percentages)	● Find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths.
		● Divide 2 digits by 10	4	Number – fractions (including decimals and percentages)	● Find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths.
		● Hundredths as fractions	4	Number – fractions (including decimals and percentages)	● Recognise and write decimal equivalents of any number of tenths or hundredths.
		● Hundredths as decimals	4	Number – fractions (including decimals and percentages)	● Recognise and write decimal equivalents of any number of tenths or hundredths.

***Power Maths* Year 4**			**National curriculum programmes of study**		
Term	**Unit**	**Lesson titles**	**Year**	**Domain**	**Pupils should be taught to:**
		• Hundredths on a place value grid	4	Number – fractions (including decimals and percentages)	• Recognise and write decimal equivalents of any number of tenths or hundredths.
		• Divide 1 or 2 digits by 100	4	Number – fractions (including decimals and percentages)	• Find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths.
		• Divide by 10 and 100	4	Number – fractions (including decimals and percentages)	• Find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths.
Textbook 4C	Unit 11, Decimals (2)	• Make a whole	4	Number – fractions (including decimals and percentages)	• Recognise and write decimal equivalents of any number of tenths or hundredths.
		• Partition decimals	4	Number – fractions (including decimals and percentages)	• Recognise and write decimal equivalents of any number of tenths or hundredths.
		• Flexibly partition decimals	4	Number – fractions (including decimals and percentages)	• Recognise and write decimal equivalents of any number of tenths or hundredths.
		• Compare decimals	4	Number – fractions (including decimals and percentages)	• Compare numbers with the same number of decimal places up to two decimal places.
		• Order decimals	4	Number – fractions (including decimals and percentages)	• Compare numbers with the same number of decimal places up to two decimal places.
		• Round to the nearest whole	4	Number – fractions (including decimals and percentages)	• Round decimals with one decimal place to the nearest whole number.
		• Halves and quarters as decimals	4	Number – fractions (including decimals and percentages)	• Recognise and write decimal equivalents to $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$.

***Power Maths* Year 4**			**National curriculum programmes of study**		
Term	**Unit**	**Lesson titles**	**Year**	**Domain**	**Pupils should be taught to:**
	Unit 12, Money	• Write money using decimals	4	Measurement	• Estimate, compare and calculate different measures, including money in pounds and pence.
		• Convert between pounds and pence	4	Measurement	• Estimate, compare and calculate different measures, including money in pounds and pence.
		• Compare amounts of money	4	Measurement	• Estimate, compare and calculate different measures, including money in pounds and pence.
		• Estimate with money	4	Measurement	• Estimate, compare and calculate different measures, including money in pounds and pence.
		• Calculate with money	4	Measurement	• Estimate, compare and calculate different measures, including money in pounds and pence.
		• Solve problems with money	4	Measurement	• Estimate, compare and calculate different measures, including money in pounds and pence.
	Unit 13, Time	• Years, months, weeks and days	4	Measurement	• Convert between different units of measure [for example, kilometre to metre; hour to minute].
		• Hours, minutes and seconds	4	Measurement	• Convert between different units of measure [for example, kilometre to metre; hour to minute].
		• Convert between analogue and digital times	4	Measurement	• Convert between different units of measure [for example, kilometre to metre; hour to minute].
		• Convert to the 24-hour clock	4	Measurement	• Convert between different units of measure [for example, kilometre to metre; hour to minute].
		• Problem solving – converting units of time	4	Measurement	• Convert between different units of measure [for example, kilometre to metre; hour to minute].

***Power Maths* Year 4**			**National curriculum programmes of study**		
Term	**Unit**	**Lesson titles**	**Year**	**Domain**	**Pupils should be taught to:**
	Unit 14, Geometry – angles and 2D shapes	• Identify angles	4	Geometry – properties of shapes	• Identify acute and obtuse angles and compare and order angles up to two right angles by size.
		• Compare and order angles	4	Geometry – properties of shapes	• Identify acute and obtuse angles and compare and order angles up to two right angles by size.
		• Triangles	4	Geometry – properties of shapes	• Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes.
		• Quadrilaterals	4	Geometry – properties of shapes	• Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes.
		• Polygons	4	Geometry – properties of shapes	• Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes.
		• Reason about polygons	4	Geometry – properties of shapes	• Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes.
		• Lines of symmetry	4	Geometry – properties of shapes	• Identify lines of symmetry in 2D shapes presented in different orientations.
		• Complete a symmetric figure	4	Geometry – properties of shapes	• Complete a simple symmetric figure with respect to a specific line of symmetry.
	Unit 15, Statistics	• Interpret charts	4	Statistics	• Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs.
		• Solve problems with charts (1)	4	Statistics	• Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.
		• Solve problems with charts (2)	4	Statistics	• Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs.

***Power Maths* Year 4**			**National curriculum programmes of study**		
Term	**Unit**	**Lesson titles**	**Year**	**Domain**	**Pupils should be taught to:**
		● Interpret line graphs (1)	4	Statistics	● Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs.
		● Interpret line graphs (2)	4	Statistics	● Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.
		● Draw line graphs	4	Statistics	● Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs.
	Unit 16, Geometry – position and direction	● Describe position	4	Geometry – position and direction	● Describe positions on a 2D grid as coordinates in the first quadrant.
		● Describe position using coordinates	4	Geometry – position and direction	● Describe positions on a 2D grid as coordinates in the first quadrant.
		● Plot coordinates	4	Geometry – position and direction	● Plot specified points and draw sides to complete a given polygon. ● Describe positions on a 2D grid as coordinates in the first quadrant.
		● Draw 2D shapes on a grid	4	Geometry – position and direction	● Plot specified points and draw sides to complete a given polygon.
		● Translate on a grid	4	Geometry – position and direction	● Describe movements between positions as translations of a given unit to the left/right and up/down.
		● Describe translation on a grid	4	Geometry – position and direction	● Describe movements between positions as translations of a given unit to the left/right and up/down.

Year 5

Power Maths Year 5			National curriculum programmes of study		
Term	**Unit**	**Lesson titles**	**Year**	**Domain**	**Pupils should be taught to:**
Textbook 5A	Unit 1, Place value within 1,000,000 (1)	• Roman numerals	5	Number – number and place value	• Read Roman numerals to 1000 (M) and recognise years written in Roman numerals.
		• Numbers to 10,000	5	Number – number and place value	• Read, write, order and compare numbers to at least 1,000,000 and determine the value of each digit.
		• Numbers to 100,000	5	Number – number and place value	• Read, write, order and compare numbers to at least 1,000,000 and determine the value of each digit.
		• Numbers to 1,000,000	5	Number – number and place value	• Read, write, order and compare numbers to at least 1,000,000 and determine the value of each digit.
		• Read and write 5- and 6-digit numbers	5	Number – number and place value	• Read, write, order and compare numbers to at least 1,000,000 and determine the value of each digit.
		• Powers of 10	5	Number – number and place value	• Count forwards or backwards in steps of powers of 10 for any given number up to 1,000,000.
		• 10/100/1,000/10,000/100,000 more or less	5	Number – number and place value	• Count forwards or backwards in steps of powers of 10 for any given number up to 1,000,000.
		• Partition numbers to 1,000,000	5	Number – number and place value	• Read, write, order and compare numbers to at least 1,000,000 and determine the value of each digit.
	Unit 2, Place value within 1,000,000 (2)	• Number line to 1,000,000	5	Number – number and place value	• Read, write, order and compare numbers to at least 1,000,000 and determine the value of each digit.
		• Compare and order numbers to 100,000	5	Number – number and place value	• Read, write, order and compare numbers to at least 1,000,000 and determine the value of each digit.
		• Compare and order numbers to 1,000,000	5	Number – number and place value	• Read, write, order and compare numbers to at least 1,000,000 and determine the value of each digit.

***Power Maths* Year 5**			**National curriculum programmes of study**		
Term	**Unit**	**Lesson titles**	**Year**	**Domain**	**Pupils should be taught to:**
		• Round numbers to the nearest 100,000	5	Number – number and place value	• Round any number up to 1,000,000 to the nearest 10, 100, 1,000, 10,000 and 100,000.
		• Round numbers to the nearest 10,000	5	Number – number and place value	• Round any number up to 1,000,000 to the nearest 10, 100, 1,000, 10,000 and 100,000.
		• Round numbers to the nearest 10, 100 and 1,000	5	Number – number and place value	• Round any number up to 1,000,000 to the nearest 10, 100, 1,000, 10,000 and 100,000.
	Unit 3, Addition and subtraction	• Mental strategies (addition)	5	Number – addition and subtraction	• Add and subtract numbers mentally with increasingly large numbers.
		• Mental strategies (subtraction)	5	Number – addition and subtraction	• Add and subtract numbers mentally with increasingly large numbers.
		• Add whole numbers with more than 4 digits (1)	5	Number – addition and subtraction	• Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction).
		• Add whole numbers with more than 4 digits (2)	5	Number – addition and subtraction	• Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction).
		• Subtract whole numbers with more than 4 digits (1)	5	Number – addition and subtraction	• Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction).
		• Subtract whole numbers with more than 4 digits (2)	5	Number – addition and subtraction	• Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction).
		• Round to check answers	5	Number – addition and subtraction	• Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy.
		• Inverse operations (addition and subtraction)	4	Number – addition and subtraction	• Estimate and use inverse operations to check answers to a calculation.

***Power Maths* Year 5**			**National curriculum programmes of study**		
Term	**Unit**	**Lesson titles**	**Year**	**Domain**	**Pupils should be taught to:**
		• Multi-step addition and subtraction problems (1)	5	Number – addition and subtraction	• Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.
		• Multi-step addition and subtraction problems (2)	5	Number – addition and subtraction	• Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.
		• Solve missing number problems	5	Number – addition and subtraction	• Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.
		• Solve comparison problems	5	Number – addition and subtraction	• Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.
	Unit 4, Multiplication and division (1)	• Multiples	5	Number – multiplication and division	• Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers.
		• Common multiples	5	Number – multiplication and division	• Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers.
		• Factors	5	Number – multiplication and division	• Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers.
		• Common factors	5	Number – multiplication and division	• Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers.
		• Prime numbers	5	Number – multiplication and division	• Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers.
		• Square numbers	5	Number – multiplication and division	• Recognise and use square numbers and cube numbers, and the notation for squared (^{2}) and cubed (^{3}).
		• Cube numbers	5	Number – multiplication and division	• Recognise and use square numbers and cube numbers, and the notation for squared (^{2}) and cubed (^{3}).

***Power Maths* Year 5**			**National curriculum programmes of study**		
Term	**Unit**	**Lesson titles**	**Year**	**Domain**	**Pupils should be taught to:**
		• Multiply by 10, 100 and 1,000	5	Number – multiplication and division	• Multiply and divide whole numbers and those involving decimals by 10, 100 and 1,000.
		• Divide by 10, 100 and 1,000	5	Number – multiplication and division	• Multiply and divide whole numbers and those involving decimals by 10, 100 and 1,000.
		• Multiples of 10, 100 and 1,000	5	Number – multiplication and division	• Multiply and divide whole numbers and those involving decimals by 10, 100 and 1,000.
	Unit 5, Fractions (1)	• Equivalent fractions	5	Number – fractions (including decimals and percentages)	• Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths.
		• Equivalent fractions – unit and non-unit fractions	5	Number – fractions (including decimals and percentages)	• Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths.
		• Equivalent fractions – families of equivalent fractions	5	Number – fractions (including decimals and percentages)	• Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths.
		• Improper fractions to mixed numbers	5	Number – fractions (including decimals and percentages)	• 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, $\frac{2}{5} + \frac{4}{5} = \frac{6}{5} = 1\frac{1}{5}$].
		• Mixed numbers to improper fractions	5	Number – fractions (including decimals and percentages)	• 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, $\frac{2}{5} + \frac{4}{5} = \frac{6}{5} = 1\frac{1}{5}$].
		• Compare fractions less than 1	5	Number – fractions (including decimals and percentages)	• Compare and order fractions whose denominators are all multiples of the same number.

***Power Maths* Year 5**			**National curriculum programmes of study**		
Term	**Unit**	**Lesson titles**	**Year**	**Domain**	**Pupils should be taught to:**
		● Order fractions less than 1	5	Number – fractions (including decimals and percentages)	● Compare and order fractions whose denominators are all multiples of the same number.
		● Compare and order fractions greater than 1	5	Number – fractions (including decimals and percentages)	● Compare and order fractions whose denominators are all multiples of the same number.
	Unit 6, Fractions (2)	● Add and subtract fractions	5	Number – fractions (including decimals and percentages)	● Add and subtract fractions with the same denominator and denominators that are multiples of the same number.
		● Add fractions within 1	5	Number – fractions (including decimals and percentages)	● Add and subtract fractions with the same denominator and denominators that are multiples of the same number.
		● Add fractions with a total greater than 1	5	Number – fractions (including decimals and percentages)	● Add and subtract fractions with the same denominator and denominators that are 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, $\frac{2}{5} + \frac{4}{5} = \frac{6}{5} = 1\frac{1}{5}$].
		● Add to a mixed number	5	Number – fractions (including decimals and percentages)	● Add and subtract fractions with the same denominator and denominators that are 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, $\frac{2}{5} + \frac{4}{5} = \frac{6}{5} = 1\frac{1}{5}$].

***Power Maths* Year 5**			**National curriculum programmes of study**		
Term	**Unit**	**Lesson titles**	**Year**	**Domain**	**Pupils should be taught to:**
		● Add two mixed numbers	5	Number – fractions (including decimals and percentages)	● Add and subtract fractions with the same denominator and denominators that are 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, $\frac{2}{5} + \frac{4}{5} = \frac{6}{5} = 1\frac{1}{5}$].
		● Subtract fractions within 1	5	Number – fractions (including decimals and percentages)	● Add and subtract fractions with the same denominator and denominators that are 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, $\frac{2}{5} + \frac{4}{5} = \frac{6}{5} = 1\frac{1}{5}$].
		● Subtract from a mixed number	5	Number – fractions (including decimals and percentages)	● Add and subtract fractions with the same denominator and denominators that are 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, $\frac{2}{5} + \frac{4}{5} = \frac{6}{5} = 1\frac{1}{5}$].

***Power Maths* Year 5**			**National curriculum programmes of study**		
Term	**Unit**	**Lesson titles**	**Year**	**Domain**	**Pupils should be taught to:**
		● Subtract from a mixed number – breaking the whole	5	Number – fractions (including decimals and percentages)	● Add and subtract fractions with the same denominator and denominators that are 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, $\frac{2}{5} + \frac{4}{5} = \frac{6}{5} = 1\frac{1}{5}$].
		● Subtract two mixed numbers	5	Number – fractions (including decimals and percentages)	● Add and subtract fractions with the same denominator and denominators that are 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, $\frac{2}{5} + \frac{4}{5} = \frac{6}{5} = 1\frac{1}{5}$].
		● Solve fraction problems	5	Number – fractions (including decimals and percentages)	● Add and subtract fractions with the same denominator and denominators that are multiples of the same number.
		● Solve multi-step fraction problems	5	Number – fractions (including decimals and percentages)	● Add and subtract fractions with the same denominator and denominators that are multiples of the same number.
Textbook 5B	Unit 7, Multiplication and division (2)	● Multiply a number up to 4 digits by a 1-digit number	5	Number – multiplication and division	● 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.
		● Multiply 2-digit numbers (area model)	5	Number – multiplication and division	● 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. ● Multiply and divide numbers mentally drawing upon known facts.

***Power Maths* Year 5**			**National curriculum programmes of study**		
Term	**Unit**	**Lesson titles**	**Year**	**Domain**	**Pupils should be taught to:**
		• Multiply 2-digit numbers	5	Number – multiplication and division	• 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. • Multiply and divide numbers mentally drawing upon known facts.
		• Multiply a 3-digit number by a 2-digit number	5	Number – multiplication and division	• 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.
		• Multiply a 4-digit number by a 2-digit number	5	Number – multiplication and division	• 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.
		• Divide a number up to 4 digits by 1-digit number (1)	5	Number – multiplication and division	• 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.
		• Divide a number up to 4 digits by 1-digit number (2)	5	Number – multiplication and division	• 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.
		• Divide with remainders	5	Number – multiplication and division	• 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.
		• Efficient division	5	Number – multiplication and division	• 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.

***Power Maths* Year 5**			**National curriculum programmes of study**		
Term	**Unit**	**Lesson titles**	**Year**	**Domain**	**Pupils should be taught to:**
		• Solve problems with multiplication and division	5	Number – multiplication and division	• 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. • 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.
	Unit 8, Fractions (3)	• Multiply unit fractions by an integer	5	Number – fractions (including decimals and percentages)	• Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams. • 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, $\frac{2}{5} + \frac{4}{5} = \frac{6}{5} = 1\frac{1}{5}$].
		• Multiply non-unit fractions by an integer	5	Number – fractions (including decimals and percentages)	• Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams. • 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, $\frac{2}{5} + \frac{4}{5} = \frac{6}{5} = 1\frac{1}{5}$].

***Power Maths* Year 5**			**National curriculum programmes of study**		
Term	**Unit**	**Lesson titles**	**Year**	**Domain**	**Pupils should be taught to:**
		● Multiply mixed numbers by integers (1)	5	Number – fractions (including decimals and percentages)	● Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams. ● 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, $\frac{2}{5} + \frac{4}{5} = \frac{6}{5} = 1\frac{1}{5}$].
		● Multiply mixed numbers by integers (2)	5	Number – fractions (including decimals and percentages)	● Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams. ● 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, $\frac{2}{5} + \frac{4}{5} = \frac{6}{5} = 1\frac{1}{5}$].
		● Fraction of an amount	5	Number – fractions (including decimals and percentages)	● Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams.
		● Finding the whole	5	Number – fractions (including decimals and percentages)	● Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams.
		● Using fractions as operators	5	Number – fractions (including decimals and percentages)	● Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams. ● 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, $\frac{2}{5} + \frac{4}{5} = \frac{6}{5} = 1\frac{1}{5}$].

Power Maths Year 5			National curriculum programmes of study		
Term	**Unit**	**Lesson titles**	**Year**	**Domain**	**Pupils should be taught to:**
	Unit 9, Decimals and percentages	• Write decimals up to 2 decimal places – less than 1	5	Number – fractions (including decimals and percentages)	• Read, write, order and compare numbers with up to three decimal places.
		• Write decimals up to 2 decimals places – greater than 1	5	Number – fractions (including decimals and percentages)	• Read, write, order and compare numbers with up to three decimal places.
		• Equivalent fractions and decimals – tenths	5	Number – fractions (including decimals and percentages)	• Read and write decimal numbers as fractions [for example, 0.71 = $\frac{71}{100}$].
		• Equivalent fractions and decimals – hundredths	5	Number – fractions (including decimals and percentages)	• Read and write decimal numbers as fractions [for example, 0.71 = $\frac{71}{100}$].
		• Equivalent fractions and decimals	5	Number – fractions (including decimals and percentages)	• Read and write decimal numbers as fractions [for example, 0.71 = $\frac{71}{100}$].
		• Thousandths as fractions	5	Number – fractions (including decimals and percentages)	• Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents.
		• Thousandths as decimals	5	Number – fractions (including decimals and percentages)	• Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents.
		• Thousandths on a place value grid	5	Number – fractions (including decimals and percentages)	• Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents.
		• Compare and order decimals – same number of decimal places	5	Number – fractions (including decimals and percentages)	• Read, write, order and compare numbers with up to three decimal places.
		• Compare and order any decimals with up to 3 decimal places	5	Number – fractions (including decimals and percentages)	• Read, write, order and compare numbers with up to three decimal places.
		• Round to the nearest whole number	5	Number – fractions (including decimals and percentages)	• Round decimals with two decimal places to the nearest whole number and to one decimal place.

***Power Maths* Year 5**			**National curriculum programmes of study**		
Term	**Unit**	**Lesson titles**	**Year**	**Domain**	**Pupils should be taught to:**
		● Round to one decimal place	5	Number – fractions (including decimals and percentages)	● Round decimals with two decimal places to the nearest whole number and to one decimal place.
		● Understand percentages	5	Number – fractions (including decimals and percentages)	● 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.
		● Percentages as fractions and decimals	5	Number – fractions (including decimals and percentages)	● 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.
		● Equivalent fractions, decimals and percentages	5	Number – fractions (including decimals and percentages)	● 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. ● 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 fractions with a denominator of a multiple of 10 or 25.
	Unit 10, Measure – perimeter and area	● Perimeter of rectangles	5	Measurement	● Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres.
		● Perimeter of rectilinear shapes (1)	5	Measurement	● Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres.
		● Perimeter of rectilinear shapes (2)	5	Measurement	● Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres.
		● Perimeter of polygons	5	Measurement	● Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres.

***Power Maths* Year 5**			**National curriculum programmes of study**		
Term	**Unit**	**Lesson titles**	**Year**	**Domain**	**Pupils should be taught to:**
		• Area of rectangles (1)	5	Measurement	• Calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm^2) and square metres (m^2) and estimate the area of irregular shapes.
		• Area of rectangles (2)	5	Measurement	• Calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm^2) and square metres (m^2) and estimate the area of irregular shapes.
		• Area of compound shapes	5	Measurement	• Calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm^2) and square metres (m^2) and estimate the area of irregular shapes.
		• Estimate area	5	Measurement	• Calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm^2) and square metres (m^2) and estimate the area of irregular shapes.
	Unit 11, Graphs and tables	• Draw line graphs	5	Statistics	• Solve comparison, sum and difference problems using information presented in a line graph.
		• Read and interpret line graphs (1)	5	Statistics	• Solve comparison, sum and difference problems using information presented in a line graph.
		• Read and interpret line graphs (2)	5	Statistics	• Solve comparison, sum and difference problems using information presented in a line graph.

Power Maths Year 5			National curriculum programmes of study		
Term	**Unit**	**Lesson titles**	**Year**	**Domain**	**Pupils should be taught to:**
		● Read and interpret tables	5	Statistics	● Complete, read and interpret information in tables, including timetables.
		● Two-way tables	5	Statistics	● Complete, read and interpret information in tables, including timetables.
		● Timetables	5	Statistics	● Complete, read and interpret information in tables, including timetables.
Textbook 5C	Unit 12, Geometry – properties of shapes	● Understand and use degrees	5	Geometry – properties of shapes	● Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles. ● Identify: angles at a point and one whole turn (total 360°); angles at a point on a straight line and $\frac{1}{2}$ a turn (total 180°); other multiples of 90°.
		● Measure acute angles	5	Geometry – properties of shapes	● Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles.
		● Measure angles up to 180°	5	Geometry – properties of shapes	● Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles. ● Draw given angles, and measure them in degrees (°).
		● Draw lines and angles accurately	5	Geometry – properties of shapes	● Draw given angles, and measure them in degrees (°).
		● Calculate angles around a point	5	Geometry – properties of shapes	● Identify: angles at a point and one whole turn (total 360°); angles at a point on a straight line and $\frac{1}{2}$ a turn (total 180°); other multiples of 90°.
		● Calculate angles on a straight line	5	Geometry – properties of shapes	● Identify: angles at a point and one whole turn (total 360°); angles at a point on a straight line and $\frac{1}{2}$ a turn (total 180°); other multiples of 90°.

***Power Maths* Year 5**			**National curriculum programmes of study**		
Term	**Unit**	**Lesson titles**	**Year**	**Domain**	**Pupils should be taught to:**
		● Lengths and angles in shapes	5	Geometry – properties of shapes	● Use the properties of rectangles to deduce related facts and find missing lengths and angles.
		● Regular and irregular polygons	5	Geometry – properties of shapes	● Distinguish between regular and irregular polygons based on reasoning about equal sides and angles.
		● Parallel lines	3	Geometry – properties of shapes	● Identify horizontal and vertical lines and pairs of perpendicular and parallel lines.
		● Perpendicular lines	3	Geometry – properties of shapes	● Identify horizontal and vertical lines and pairs of perpendicular and parallel lines.
		● Investigate lines	3	Geometry – properties of shapes	● Identify horizontal and vertical lines and pairs of perpendicular and parallel lines.
		● 3D shapes	5	Geometry – properties of shapes	● Identify 3D shapes, including cubes and other cuboids, from 2D representations.
	Unit 13, Geometry – position and direction	● Read and plot coordinates	4	Geometry – position and direction	● Describe positions on a 2D grid as coordinates in the first quadrant. ● Plot specified points and draw sides to complete a given polygon.
		● Problem solving with coordinates	4	Geometry – position and direction	● Describe positions on a 2D grid as coordinates in the first quadrant. ● Plot specified points and draw sides to complete a given polygon.
		● Translate shapes	5	Geometry – position and direction	● 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.
		● Translate points	5	Geometry – position and direction	● 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.

Power Maths Year 5			National curriculum programmes of study		
Term	**Unit**	**Lesson titles**	**Year**	**Domain**	**Pupils should be taught to:**
		• Reflection	4	Geometry – position and direction	• 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.
		• Reflection in horizontal and vertical lines	5	Geometry – position and direction	• 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.
	Unit 14, Decimals	• Add and subtract decimals within 1 (1)	5	Number – fractions (including decimals and percentages)	• Solve problems involving number up to three decimal places.
		• Add and subtract decimals within 1 (2)	5	Number – fractions (including decimals and percentages)	• Solve problems involving number up to three decimal places.
		• Complements to 1	5	Number – fractions (including decimals and percentages)	• Solve problems involving number up to three decimal places.
		• Add and subtract decimals across 1	5	Number – fractions (including decimals and percentages)	• Solve problems involving number up to three decimal places.
		• Add decimals with the same number of decimal places	5	Number – fractions (including decimals and percentages)	• Solve problems involving number up to three decimal places.
		• Subtract decimals with the same number of decimal places	5	Number – fractions (including decimals and percentages)	• Solve problems involving number up to three decimal places.
		• Add decimals with a different numbers of decimal places	5	Number – fractions (including decimals and percentages)	• Solve problems involving number up to three decimal places.
		• Subtract decimals with a different numbers of decimal places	5	Number – fractions (including decimals and percentages)	• Solve problems involving number up to three decimal places.

Power Maths Year 5			National curriculum programmes of study		
Term	**Unit**	**Lesson titles**	**Year**	**Domain**	**Pupils should be taught to:**
		• Problem solving with decimals (1)	5	Number – fractions (including decimals and percentages)	• Solve problems involving number up to three decimal places.
		• Problem solving with decimals (2)	5	Number – fractions (including decimals and percentages)	• Solve problems involving number up to three decimal places.
		• Decimal sequences	5	Number – fractions (including decimals and percentages)	• Read, write, order and compare numbers with up to three decimal places.
		• Multiply by 10	5	Number – fractions (including decimals and percentages)	• Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents. • Solve problems involving number up to three decimal places.
		• Multiply by 10, 100 and 1,000	5	Number – fractions (including decimals and percentages)	• Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents. • Solve problems involving number up to three decimal places.
		• Divide by 10	5	Number – fractions (including decimals and percentages)	• Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents. • Solve problems involving number up to three decimal places.
		• Divide by 10, 100 and 1,000	5	Number – fractions (including decimals and percentages)	• Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents. • Solve problems involving number up to three decimal places.
	Unit 15, Negative numbers	• Understand negative numbers	5	Number – number and place value	• Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero.

***Power Maths* Year 5**			**National curriculum programmes of study**		
Term	**Unit**	**Lesson titles**	**Year**	**Domain**	**Pupils should be taught to:**
		● Count through zero	5	Number – number and place value	● Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero.
		● Compare and order negative numbers	5	Number – number and place value	● Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero.
		● Find the difference	5	Number – number and place value	● Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero.
	Unit 16, Measure – converting units	● Kilograms and kilometres	5	Measurement	● Convert between different units of metric measure [for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre].
		● Millimetres and millilitres	5	Measurement	● Convert between different units of metric measure [for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre].
		● Convert units of length	5	Measurement	● Convert between different units of metric measure [for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre].
		● Imperial units of length	5	Measurement	● Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints.
		● Imperial units of mass	5	Measurement	● Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints.

***Power Maths* Year 5**			**National curriculum programmes of study**		
Term	**Unit**	**Lesson titles**	**Year**	**Domain**	**Pupils should be taught to:**
		● Imperial units of capacity	5	Measurement	● Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints.
		● Convert units of time	5	Measurement	● Solve problems involving converting between units of time.
		● Timetables – calculating	5	Measurement	● Solve problems involving converting between units of time.
		● Problem solving – units of measure (1)	5	Measurement	● Use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling.
		● Problem solving – units of measure (2)	5	Measurement	● Use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling.
	Unit 17, Measure – volume	● Cubic centimetres	5	Measurement	● Estimate volume [for example, using 1 cm^3 blocks to build cuboids (including cubes)] and capacity [for example, using water].
		● Compare volumes	5	Measurement	● Estimate volume [for example, using 1 cm^3 blocks to build cuboids (including cubes)] and capacity [for example, using water].
		● Estimate volume	5	Measurement	● Estimate volume [for example, using 1 cm^3 blocks to build cuboids (including cubes)] and capacity [for example, using water].

Year 6

Power Maths Year 6			National curriculum programmes of study		
Term	**Unit**	**Lesson titles**	**Year**	**Domain**	**Pupils should be taught to:**
Textbook 6A	Unit 1, Place value within 10,000,000	• Numbers to 1,000,000	6	Number – number and place value	• Read, write, order and compare numbers up to 10,000,000 and determine the value of each digit. • Solve number and practical problems.
		• Numbers to 10,000,000	6	Number – number and place value	• Read, write, order and compare numbers up to 10,000,000 and determine the value of each digit. • Solve number and practical problems.
		• Partition numbers to 10,000,000	6	Number – number and place value	• Read, write, order and compare numbers up to 10,000,000 and determine the value of each digit. • Solve number and practical problems.
		• Powers of 10	6	Number – number and place value	• Read, write, order and compare numbers up to 10,000,000 and determine the value of each digit. • Solve number and practical problems.
		• Number line to 10,000,000	6	Number – number and place value	• Read, write, order and compare numbers up to 10,000,000 and determine the value of each digit. • Solve number and practical problems.
		• Compare and order any number	6	Number – number and place value	• Read, write, order and compare numbers up to 10,000,000 and determine the value of each digit. • Solve number and practical problems.
		• Round any number	6	Number – number and place value	• Round any whole number to a required degree of accuracy.
		• Negative numbers	6	Number – number and place value	• Use negative numbers in context, and calculate intervals across zero.
	Unit 2, Four operations (1)	• Add integers	6	Number – addition, subtraction, multiplication and division	• Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.

***Power Maths* Year 6**			**National curriculum programmes of study**		
Term	**Unit**	**Lesson titles**	**Year**	**Domain**	**Pupils should be taught to:**
		• Subtract integers	6	Number – addition, subtraction, multiplication and division	• Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.
		• Problem solving – addition and subtraction	6	Number – addition, subtraction, multiplication and division	• Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.
		• Common factors	6	Number – addition, subtraction, multiplication and division	• Identify common factors, common multiples and prime numbers.
		• Common multiples	6	Number – addition, subtraction, multiplication and division	• Identify common factors, common multiples and prime numbers.
		• Rules of divisibility	6	Number – addition, subtraction, multiplication and division	• Identify common factors, common multiples and prime numbers. • Use their knowledge of the order of operations to carry out calculations involving the four operations.
		• Primes to 100	6	Number – addition, subtraction, multiplication and division	• Identify common factors, common multiples and prime numbers.
		• Squares and cubes	5	Number – addition, subtraction, multiplication and division	• Recognise and use square numbers and cube numbers, and the notation for squared (^{2}) and cubed (^{3}).
	Unit 3, Four operations (2)	• Multiply by a 1-digit number	6	Number – addition, subtraction, multiplication and division	• Multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication.
		• Multiply up to a 4-digit number by a 2-digit number	6	Number – addition, subtraction, multiplication and division	• Multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication.

Power Maths Year 6			National curriculum programmes of study		
Term	**Unit**	**Lesson titles**	**Year**	**Domain**	**Pupils should be taught to:**
		• Short division	6	Number – 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.
		• Division using factors	6	Number – addition, subtraction, multiplication and division	• Identify common factors, common multiples and prime numbers. • 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.
		• Divide a 3-digit number by a 2-digit number (long division)	6	Number – 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.
		• Divide a 4-digit number by a 2-digit number (long division)	6	Number – 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. • 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.

Power Maths Year 6			National curriculum programmes of study		
Term	**Unit**	**Lesson titles**	**Year**	**Domain**	**Pupils should be taught to:**
		• Long division with remainders	6	Number – 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. • 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.
		• Order of operations	6	Number – addition, subtraction, multiplication and division	• Use their knowledge of the order of operations to carry out calculations involving the four operations.
		• Brackets	6	Number – addition, subtraction, multiplication and division	• Use their knowledge of the order of operations to carry out calculations involving the four operations.
		• Mental calculations (1)	6	Number – addition, subtraction, multiplication and division	• Perform mental calculations, including with mixed operations and large numbers.
		• Mental calculations (2)	6	Number – addition, subtraction, multiplication and division	• Perform mental calculations, including with mixed operations and large numbers.
		• Reason from known facts	6	Number – addition, subtraction, multiplication and division	• Use their knowledge of the order of operations to carry out calculations involving the four operations. • Solve problems involving addition, subtraction, multiplication and division.
	Unit 4, Fractions (1)	• Equivalent fractions and simplifying	6	Number – fractions	• Use common factors to simplify fractions; use common multiples to express fractions in the same denomination.
		• Equivalent fractions on a number line	6	Number – fractions	• Compare and order fractions, including fractions > 1.

***Power Maths* Year 6**			**National curriculum programmes of study**		
Term	**Unit**	**Lesson titles**	**Year**	**Domain**	**Pupils should be taught to:**
		• Compare and order fractions	6	Number – fractions	• Compare and order fractions, including fractions > 1. • Use common factors to simplify fractions; use common multiples to express fractions in the same denomination.
		• Add and subtract simple fractions	6	Number – fractions	• Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions.
		• Add and subtract any two fractions	6	Number – fractions	• Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions.
		• Add mixed numbers	6	Number – fractions	• Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions.
		• Subtract mixed numbers	6	Number – fractions	• Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions.
		• Multi-step problems	6	Number – fractions	• Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions.
		• Problem solving – add and subtract fractions	6	Number – fractions	• Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions.
	Unit 5, Fractions (2)	• Multiply fractions by integers	5	Number – fractions	• Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams.
		• Multiply fractions by fractions (1)	6	Number – fractions	• Multiply simple pairs of proper fractions, writing the answer in its simplest form [for example, $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$].
		• Multiply fractions by fractions (2)	6	Number – fractions	• Multiply simple pairs of proper fractions, writing the answer in its simplest form [for example, $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$].

***Power Maths* Year 6**			**National curriculum programmes of study**		
Term	**Unit**	**Lesson titles**	**Year**	**Domain**	**Pupils should be taught to:**
		• Divide a fraction by an integer (1)	6	Number – fractions	• Divide proper fractions by whole numbers [for example, $\frac{1}{3} \div 2 = \frac{1}{6}$].
		• Divide a fraction by an integer (2)	6	Number – fractions	• Divide proper fractions by whole numbers [for example, $\frac{1}{3} \div 2 = \frac{1}{6}$].
		• Divide a fraction by an integer (3)	6	Number – fractions	• Divide proper fractions by whole numbers [for example, $\frac{1}{3} \div 2 = \frac{1}{6}$].
		• Mixed questions with fractions	6	Number – fractions	• Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions. • Multiply simple pairs of proper fractions, writing the answer in its simplest form [for example, $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$].
		• Fraction of an amount	6	Number – fractions	• Use written division methods in cases where the answer has up to two decimal places.
		• Fraction of an amount – find the whole	6	Number – fractions	• Use written division methods in cases where the answer has up to two decimal places.
	Unit 6, Measure – imperial and metric measures	• Metric measures	6	Measurement	• 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 three decimal places.

Power Maths Year 6			National curriculum programmes of study		
Term	**Unit**	**Lesson titles**	**Year**	**Domain**	**Pupils should be taught to:**
		• Convert metric measures	6	Measurement	• 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 three decimal places. • Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate.
		• Calculate with metric measures	6	Measurement	• Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate.
		• Miles and kilometres	6	Measurement	• Convert between miles and kilometres.
		• Imperial measures	6	Measurement	• 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 three decimal places.
Textbook 6B	Unit 7, Ratio and proportion	• Use ratio language	6	Ratio and proportion	• Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples.
		• Introduce the ratio symbol	6	Ratio and proportion	• Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples.
		• Use ratio	6	Ratio and proportion	• Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples.

***Power Maths* Year 6**			**National curriculum programmes of study**		
Term	**Unit**	**Lesson titles**	**Year**	**Domain**	**Pupils should be taught to:**
		● Scale drawing	6	Ratio and proportion	● Solve problems involving similar shapes where the scale factor is known or can be found.
		● Scale factors	6	Ratio and proportion	● Solve problems involving similar shapes where the scale factor is known or can be found.
		● Similar shapes	6	Ratio and proportion	● Solve problems involving similar shapes where the scale factor is known or can be found.
		● Ratio problems	6	Ratio and proportion	● Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples.
		● Problem solving – ratio and proportion (1)	6	Ratio and proportion	● Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples. ● Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts.
		● Problem solving – ratio and proportion (2)	6	Ratio and proportion	● Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples. ● Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts.
	Unit 8, Algebra	● Find a rule – one step	6	Algebra	● Generate and describe linear number sequences.
		● Find a rule – two steps	6	Algebra	● Generate and describe linear number sequences.
		● Form expressions	6	Algebra	● Generate and describe linear number sequences.

***Power Maths* Year 6**			**National curriculum programmes of study**		
Term	**Unit**	**Lesson titles**	**Year**	**Domain**	**Pupils should be taught to:**
		• Substitution (1)	6	Algebra	• Express missing number problems algebraically. • Generate and describe linear number sequences.
		• Substitution (2)	6	Algebra	• Express missing number problems algebraically. • Generate and describe linear number sequences.
		• Formulae	6	Algebra	• Use simple formulae.
		• Form and solve equations	6	Algebra	• Express missing number problems algebraically.
		• Solve one-step equations	6	Algebra	• Express missing number problems algebraically.
		• Solve two-step equations	6	Algebra	• Express missing number problems algebraically.
		• Find pairs of values	6	Algebra	• Find pairs of numbers that satisfy an equation with two unknowns.
		• Solve problems with two unknowns	6	Algebra	• Enumerate possibilities of combinations of two variables. • Find pairs of numbers that satisfy an equation with two unknowns.
	Unit 9, Decimals	• Place value to 3 decimal places	6	Number – fractions (including decimals and percentages)	• Identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places. • Solve problems which require answers to be rounded to specified degrees of accuracy.

Power Maths Year 6			National curriculum programmes of study		
Term	**Unit**	**Lesson titles**	**Year**	**Domain**	**Pupils should be taught to:**
		● Round decimals	6	Number – fractions (including decimals and percentages)	● Identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places. ● Solve problems which require answers to be rounded to specified degrees of accuracy.
		● Add and subtract decimals	6	Number – fractions (including decimals and percentages)	● Solve problems which require answers to be rounded to specified degrees of accuracy.
		● Multiply by 10, 100 and 1,000	6	Number – fractions (including decimals and percentages)	● Identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places.
		● Divide by 10, 100 and 1,000	6	Number – fractions (including decimals and percentages)	● Identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places.
		● Multiply decimals by integers	6	Number – fractions (including decimals and percentages)	● Multiply one-digit numbers with up to two decimal places by whole numbers.
		● Divide decimals by integers	6	Number – fractions (including decimals and percentages)	● Use written division methods in cases where the answer has up to two decimal places. ● Solve problems which require answers to be rounded to specified degrees of accuracy.

***Power Maths* Year 6**			**National curriculum programmes of study**		
Term	**Unit**	**Lesson titles**	**Year**	**Domain**	**Pupils should be taught to:**
		● Fractions to decimals	6	Number – fractions (including decimals and percentages)	● Associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example, $\frac{3}{8}$]. ● Identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places.
		● Fractions as division	6	Number – fractions (including decimals and percentages)	● Associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example, $\frac{3}{8}$].
	Unit 10, Percentages	● Understand percentages	6	Number – fractions (including decimals and percentages)	● Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.
		● Fractions to percentages	6	Number – fractions (including decimals and percentages)	● Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.
		● Equivalent fractions, decimals and percentages	6	Number – fractions (including decimals and percentages)	● Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.
		● Order fractions, decimals and percentages	6	Number – fractions (including decimals and percentages)	● Compare and order fractions, including fractions > 1. ● Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.

***Power Maths* Year 6**			**National curriculum programmes of study**		
Term	**Unit**	**Lesson titles**	**Year**	**Domain**	**Pupils should be taught to:**
		● Simple percentage of an amount	6	Ratio and proportion	● Solve problems involving the calculation of percentages [for example, of measures, and such as 15% of 360] and the use of percentages for comparison.
				Number – fractions (including decimals and percentages)	● Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.
		● Percentage of an amount – 1%	6	Ratio and proportion	● Solve problems involving the calculation of percentages [for example, of measures, and such as 15% of 360] and the use of percentages for comparison.
				Number – fractions (including decimals and percentages)	● Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.
		● Percentages of an amount	6	Ratio and proportion	● Solve problems involving the calculation of percentages [for example, of measures, and such as 15% of 360] and the use of percentages for comparison.
				Number – fractions (including decimals and percentages)	● Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.
		● Percentages (missing values)	6	Number – fractions (including decimals and percentages)	● Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts. ● Multiply one-digit numbers with up to two decimal places by whole numbers.

***Power Maths* Year 6**			**National curriculum programmes of study**		
Term	**Unit**	**Lesson titles**	**Year**	**Domain**	**Pupils should be taught to:**
	Unit 11, Measure – perimeter, area and volume	● Shapes – same area	6	Measurement	● Recognise that shapes with the same areas can have different perimeters and vice versa.
		● Area and perimeter	6	Measurement	● Recognise that shapes with the same areas can have different perimeters and vice versa.
		● Area and perimeter – missing lengths	6	Measurement	● Recognise that shapes with the same areas can have different perimeters and vice versa.
		● Area of a triangle – counting squares	6	Measurement	● Calculate the area of parallelograms and triangles.
		● Area of a right-angled triangle	6	Measurement	● Calculate the area of parallelograms and triangles.
		● Area of any triangle	6	Measurement	● Calculate the area of parallelograms and triangles.
		● Area of a parallelogram	6	Measurement	● Recognise when it is possible to use formulae for area and volume of shapes. ● Calculate the area of parallelograms and triangles.
		● Problem solving – area	6	Measurement	● Calculate the area of parallelograms and triangles.
		● Problem solving – perimeter	6	Measurement	● Recognise when it is possible to use formulae for area and volume of shapes.
		● Volume – count cubes	6	Measurement	● Calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm^3) and cubic metres (m^3), and extending to other units [for example, mm^3 and km^3]. ● Recognise when it is possible to use formulae for area and volume of shapes.

***Power Maths* Year 6**			**National curriculum programmes of study**		
Term	**Unit**	**Lesson titles**	**Year**	**Domain**	**Pupils should be taught to:**
		• Volume of a cuboid	6	Measurement	• Calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm^3) and cubic metres (m^3), and extending to other units [for example, mm^3 and km^3]. • Recognise when it is possible to use formulae for area and volume of shapes.
Textbook 6C	Unit 12, Statistics	• Interpret line graphs	6	Statistics	• Interpret and construct pie charts and line graphs and use these to solve problems.
		• Draw line graphs	6	Statistics	• Interpret and construct pie charts and line graphs and use these to solve problems.
		• Advanced bar charts	6	Number – addition, subtraction, multiplication and division	• Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why. • Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.
		• Understand and complete pie charts	6	Statistics	• Interpret and construct pie charts and line graphs and use these to solve problems.
		• Read and interpret pie charts	6	Statistics	• Interpret and construct pie charts and line graphs and use these to solve problems.
		• Pie charts and fractions (1)	6	Statistics	• Interpret and construct pie charts and line graphs and use these to solve problems.
		• Pie charts and fractions (2)	6	Statistics	• Interpret and construct pie charts and line graphs and use these to solve problems.

Power Maths Year 6			National curriculum programmes of study		
Term	**Unit**	**Lesson titles**	**Year**	**Domain**	**Pupils should be taught to:**
		● Pie charts and percentages	6	Statistics	● Interpret and construct pie charts and line graphs and use these to solve problems. ● Non-statutory guidance: Pupils connect their work on angles, fractions and percentages to the interpretation of pie charts.
		● Introduction to the mean	6	Statistics	● Calculate and interpret the mean as an average.
		● Calculate the mean	6	Statistics	● Calculate and interpret the mean as an average.
		● Problem solving – mean	6	Statistics	● Calculate and interpret the mean as an average.
	Unit 13, Geometry – properties of shapes	● Measure and classify angles	6	Geometry – properties of shapes	● Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles.
		● Vertically opposite angles	6	Geometry – properties of shapes	● Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles.
		● Angles in a triangle	6	Geometry – properties of shapes	● Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons. ● Draw 2D shapes using given dimensions and angles.
		● Angles in a triangle – missing angles	6	Geometry – properties of shapes	● Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons.

***Power Maths* Year 6**			**National curriculum programmes of study**		
Term	**Unit**	**Lesson titles**	**Year**	**Domain**	**Pupils should be taught to:**
		● Angles in a triangle – special cases	6	Geometry – properties of shapes	● Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons.
		● Angles in quadrilaterals	6	Geometry – properties of shapes	● Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons.
		● Angles in polygons	6	Geometry – properties of shapes	● Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons.
		● Circles	6	Geometry – properties of shapes	● Illustrate and name parts of circles, including radius, diameter and circumference, and know that the diameter is twice the radius.
		● Parts of a circle	6	Geometry – properties of shapes	● Illustrate and name parts of circles, including radius, diameter and circumference, and know that the diameter is twice the radius.
		● Draw shapes accurately	6	Geometry – properties of shapes	● Draw 2D shapes using given dimensions and angles.
		● Nets of 3D shapes (1)	6	Geometry – properties of shapes	● Recognise, describe and build simple 3D shapes, including making nets.
		● Nets of 3D shapes (2)	6	Geometry – properties of shapes	● Recognise, describe and build simple 3D shapes, including making nets.
	Unit 14, Geometry – position and direction	● The first quadrant	6	Geometry – position and direction	● Describe positions on the full coordinate grid (all four quadrants).
		● Read and plot points in four quadrants	6	Geometry – position and direction	● Describe positions on the full coordinate grid (all four quadrants).
		● Translations	6	Geometry – position and direction	● Draw and translate simple shapes on the coordinate plane, and reflect them in the axes.

***Power Maths* Year 6**			**National curriculum programmes of study**		
Term	**Unit**	**Lesson titles**	**Year**	**Domain**	**Pupils should be taught to:**
		● Reflections	6	Geometry – position and direction	● Draw and translate simple shapes on the coordinate plane, and reflect them in the axes.
		● Solve problems with coordinates	6	Geometry – position and direction	● Describe positions on the full coordinate grid (all four quadrants). ● Draw and translate simple shapes on the coordinate plane, and reflect them in the axes.
	Unit 15, Problem solving	● Problem solving – place value	6	Number – number and place value	● Solve number and practical problems that involve all of the above.
		● Problem solving – negative numbers	6	Number – number and place value	● Solve number and practical problems that involve all of the above.
		● Problem solving – addition and subtraction	6	Number – addition, subtraction, multiplication and division	● Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy. ● Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.
		● Problem solving – four operations (1)	6	Number – addition, subtraction, multiplication and division	● Solve problems involving addition, subtraction, multiplication and division. ● Use their knowledge of the order of operations to carry out calculations involving the four operations.
		● Problem solving – four operations (2)	6	Number – addition, subtraction, multiplication and division	● Solve problems involving addition, subtraction, multiplication and division.
		● Problem solving – fractions	6	Number – fractions (including decimals and percentages)	● Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.

***Power Maths* Year 6**			**National curriculum programmes of study**		
Term	**Unit**	**Lesson titles**	**Year**	**Domain**	**Pupils should be taught to:**
		● Problem solving – decimals	6	Number – fractions (including decimals and percentages)	● Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.
		● Problem solving – percentages	6	Number – fractions (including decimals and percentages)	● Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.
		● Problem solving – ratio and proportion	6	Ratio and proportion	● Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples. ● Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts.
		● Problem solving – time (1)	6	Measurement	● 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 three decimal places.
		● Problem solving – time (2)	6	Measurement	● 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 three decimal places.
		● Problem solving – position and direction	6	Geometry – properties of shapes	● Describe positions on the full coordinate grid (all four quadrants).

***Power Maths* Year 6**			**National curriculum programmes of study**		
Term	**Unit**	**Lesson titles**	**Year**	**Domain**	**Pupils should be taught to:**
		• Problem solving – properties of shapes (1)	6	Geometry – properties of shapes	• Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles. • Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons.
		• Problem solving – properties of shapes (2)	6	Geometry – properties of shapes	• Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles. • Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons.