## Power Maths Year 5, yearly overview

| Textbook | Strand | Unit |  | Number of Lessons |
| :---: | :---: | :---: | :---: | :---: |
| Textbook A / Practice Book A | Number - number and place value | 1 | Place value within 100,000 | 8 |
|  | Number - number and place value | 2 | Place value within 1,000,000 | 8 |
| (Term 1) | Number - addition and subtraction | 3 | Addition and subtraction | 10 |
|  | Statistics | 4 | Graphs and tables | 5 |
|  | Number - multiplication and division | 5 | Multiplication and division (1) | 10 |
|  | Measurement | 6 | Measure - area and perimeter | 7 |
| Textbook B / Practice Book B | Number - multiplication and division | 7 | Multiplication and division (2) | 11 |
|  | Number - fractions (including decimals and percentages) | 8 | Fractions (1) | 8 |
| (Term 2) | Number - fractions (including decimals and percentages) | 9 | Fractions (2) | 12 |
|  | Number - fractions (including decimals and percentages) | 10 | Fractions (3) | 7 |
|  | Number - fractions (including decimals and percentages) | 11 | Decimals and percentages | 12 |
| Textbook C / Practice Book C | Number - fractions (including decimals and percentages) | 12 | Decimals | 15 |
| (Term 3) | Geometry - properties of shapes | 13 | Geometry - properties of shapes (1) | 7 |
|  | Geometry - properties of shapes | 14 | Geometry - properties of shapes (2) | 5 |
|  | Geometry - position and direction | 15 | Geometry - position and direction | 4 |
|  | Measurement | 16 | Measure - converting units | 10 |
|  | Measurement | 17 | Measure - volume and capacity | 4 |

## Power Maths Year 5, Textbook 5A (Term I) Overview

| Strand 1 | Strand 2 | Unit |  | $\begin{array}{\|l\|} \hline \text { Lesson } \\ \text { number } \end{array}$ | Lesson title | NC Objective 1 | NC Objective 2 | NC Objective 3 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number number and place value |  | Unit 1 | Place value within 100,000 | 1 | $\begin{aligned} & \text { Numbers to } \\ & 10,000 \end{aligned}$ | Read, write, order and compare numbers to at least $1,000,000$ and determine the value of each digit | Count forwards or backwards in steps of powers of 10 for any given number up to 1,000,000 |  |
| Number number and place value |  | Unit 1 | Place value within 100,000 | 2 | Rounding to the nearest 10,100 and 1,000 | Round any number up to $1,000,000$ to the nearest 10, 100, 1,000, 10,000 and 100,000 |  |  |
| Number number and place value |  | Unit 1 | Place value within 100,000 | 3 | $\begin{aligned} & 10,000 \mathrm{~s}, \\ & 1,000 \mathrm{~s}, 100 \mathrm{~s}, \\ & 10 \mathrm{~s} \text { and } 1 \mathrm{~s}(1) \end{aligned}$ | Read, write, order and compare numbers to at least $1,000,000$ and determine the value of each digit |  |  |
| Number number and place value |  | Unit 1 | Place value within 100,000 | 4 | $\begin{aligned} & 10,000 \mathrm{~s}, \\ & 1,000 \mathrm{~s}, 100 \mathrm{~s}, \\ & 10 \mathrm{~s} \text { and } 1 \mathrm{~s}(2) \end{aligned}$ | Solve number problems and practical problems that involve all of the above |  |  |
| Number number and place value |  | Unit 1 | Place value within 100,000 | 5 | The number line to 100,000 | Read, write, order and compare numbers to at least $1,000,000$ and determine the value of each digit |  |  |
| Number number and place value |  | Unit 1 | Place value within 100,000 | 6 | Comparing and ordering numbers to 100,000 | Read, write, order and compare numbers to at least 1,000,000 and determine the value of each digit |  |  |


| Strand 1 | Strand 2 | Unit |  | Lesson number | Lesson title | NC Objective 1 | NC Objective 2 | NC Objective 3 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number number and place value |  | Unit 1 | Place value within 100,000 | 7 | Rounding numbers within 100,000 | Round any number up to $1,000,000$ to the nearest 10, 100, 1,000, 10,000 and 100,000 |  |  |
| Number number and place value |  | Unit 1 | Place value within 100,000 | 8 | Roman numerals to 10,000 | Read roman numerals to $1,000(\mathrm{~m})$ and recognise years written in roman numerals |  |  |
| Number number and place value |  | Unit 2 | Place value within 1,000,000 | 1 | $\begin{aligned} & 100,000 \mathrm{~s} \\ & 10,000 \mathrm{~s}, \\ & 1,000 \mathrm{~s}, 100 \mathrm{~s}, \\ & 10 \mathrm{~s} \text { and } 1 \mathrm{~s}(1) \end{aligned}$ | Read, write, order and compare numbers to at least $1,000,000$ and determine the value of each digit |  |  |
| Number number and place value |  | Unit 2 | Place value within 1,000,000 | 2 | $\begin{aligned} & 100,000 \mathrm{~s} \\ & 10,000 \mathrm{~s}, \\ & 1,000 \mathrm{~s}, 100 \mathrm{~s}, \\ & 10 \mathrm{~s} \text { and } 1 \mathrm{~s}(2) \end{aligned}$ | Solve number problems and practical problems that involve all of the above |  |  |
| Number number and place value |  | Unit 2 | Place value within 1,000,000 | 3 | Number line to 1,000,000 | Read, write, order and compare numbers to at least 1,000,000 and determine the value of each digit |  |  |
| Number number and place value |  | Unit 2 | Place value within 1,000,000 | 4 | Comparing and ordering numbers to 1,000,000 | Read, write, order and compare numbers to at least 1,000,000 and determine the value of each digit |  |  |
| Number number and place value |  | Unit 2 | Place value within 1,000,000 | 5 | Rounding numbers to a 1,000,000 | Round any number up to 1,000,000 to the nearest $10,100,1,000,10,000$ and 100,000 |  |  |
| Numbernumber and place value |  | Unit 2 | Place value within 1,000,000 | 6 | Negative numbers | Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero |  |  |
| Number number and place value |  | Unit 2 | Place value within 1,000,000 | 7 | $\begin{aligned} & \text { Counting in } \\ & 10 \mathrm{~s}, 100 \mathrm{~s}, \\ & 1,000 \mathrm{~s}, \\ & 10,000 \mathrm{~s} \end{aligned}$ | Count forwards or backwards in steps of powers of 10 for any given number up to 1,000,000 |  |  |
| Number number and place value |  | Unit 2 | Place value within 1,000,000 | 8 | Number sequences | Solve number problems and practical problems that involve all of the above |  |  |
| Number addition and subtraction |  | Unit 3 | Addition and subtraction | 1 | Adding whole numbers with more than 4 digits (1) | Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction) |  |  |
| Number addition and subtraction |  | Unit 3 | Addition and subtraction | 2 | Adding whole numbers with more than 4 digits (2) | Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction) |  |  |
| Number addition and subtraction |  | Unit 3 | Addition and subtraction | 3 | Subtracting whole numbers with more than 4 digits (1) | Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction) |  |  |
| Number addition and subtraction |  | Unit 3 | Addition and subtraction | 4 | Subtracting whole numbers with more than 4 digits (2) | Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction) |  |  |
| Number addition and subtraction |  | Unit 3 | Addition and subtraction | 5 | Using rounding to estimate and check answers | Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy |  |  |
| Number addition and subtraction |  | Unit 3 | Addition and subtraction | 6 | Mental addition and subtraction (1) | Add and subtract numbers mentally with increasingly large numbers |  |  |
| Number addition and subtraction |  | Unit 3 | Addition and subtraction | 7 | Mental addition and subtraction (2) | Add and subtract numbers mentally with increasingly large numbers | Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why |  |


| Strand 1 | Strand 2 | Unit |  | Lesson number | Lesson title | NC Objective 1 | NC Objective 2 | NC Objective 3 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number addition and subtraction |  | Unit 3 | Addition and subtraction | 8 | Using inverse operations | Estimate and use inverse operations to check answers to a calculation |  |  |
| Number addition and subtraction |  | Unit 3 | Addition and subtraction | 9 | Problem solving addition and subtraction <br> (1) | Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why |  |  |
| Number addition and subtraction |  | Unit 3 | Addition and subtraction | 10 | Problem solving addition and subtraction (2) | Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why |  |  |
| Statistics |  | Unit 4 | Graphs and tables | 1 | Interpreting tables | Complete, read and interpret information in tables, including timetables |  |  |
| Statistics |  | Unit 4 | Graphs and tables | 2 | Two-way tables | Complete, read and interpret information in tables, including timetables |  |  |
| Statistics |  | Unit 4 | Graphs and tables | 3 | Interpreting line graphs <br> (1) | Solve comparison, sum and difference problems using information presented in a line graph |  |  |
| Statistics |  | Unit 4 | Graphs and tables | 4 | Interpreting line graphs (2) | Solve comparison, sum and difference problems using information presented in a line graph |  |  |
| Statistics |  | Unit 4 | Graphs and tables | 5 | Drawing line graphs | Solve comparison, sum and difference problems using information presented in a line graph |  |  |
| Number multiplication and division |  | Unit 5 | Multiplication and division <br> (1) | 1 | Multiples | Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers | Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes |  |
| Number multiplication and division |  | Unit 5 | Multiplication and division <br> (1) | 2 | Factors | Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers |  |  |
| Number multiplication and division |  | Unit 5 | Multiplication and division <br> (1) | 3 | Prime numbers | Know and use the vocabulary of prime numbers, prime factors and composite (nonprime) numbers | Establish whether a number up to 100 is prime and recall prime numbers up to 19 |  |
| Number multiplication and division |  | Unit 5 | Multiplication and division <br> (1) | 4 | Using factors | Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes |  |  |
| Number multiplication and division |  | Unit 5 | Multiplication and division <br> (1) | 5 | Squares | Recognise and use square numbers and cube numbers, and the notation for squared (2) and cubed (3) | Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes |  |
| Number multiplication and division |  | Unit 5 | Multiplication and division <br> (1) | 6 | Cubes | Recognise and use square numbers and cube numbers, and the notation for squared (2) and cubed (3) | Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers | Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes |
| Number multiplication and division |  | Unit 5 | Multiplication and division <br> (1) | 7 | Inverse operations | Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates |  |  |


| Strand 1 | Strand 2 | Unit |  | Lesson number | Lesson title | NC Objective 1 | NC Objective 2 | NC Objective 3 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number multiplication and division |  | Unit 5 | Multiplication and division <br> (1) | 8 | Multiplying whole numbers by 10, 100 and 1,000 | Multiply and divide whole numbers and those involving decimals by 10,100 and 1,000 |  |  |
| Number multiplication and division |  | Unit 5 | Multiplication and division <br> (1) | 9 | Dividing whole numbers by 10,100 and 1,000 | Multiply and divide whole numbers and those involving decimals by 10,100 and 1,000 | Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates |  |
| Number multiplication and division |  | Unit 5 | Multiplication and division <br> (1) | 10 | Multiplying and dividing by multiples of 10,100 and 1,000 | Multiply and divide whole numbers and those involving decimals by 10,100 and 1,000 |  |  |
| Measurement |  | Unit 6 | Measure area and perimeter | 1 | Measuring perimeter | Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres |  |  |
| Measurement |  | Unit 6 | Measure area and perimeter | 2 | Calculating perimeter (1) | Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres |  |  |
| Measurement |  | Unit 6 | Measure area and perimeter | 3 | Calculating perimeter (2) | Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres |  |  |
| Measurement |  | Unit 6 | Measure area and perimeter | 4 | Calculating area (1) | Calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres $\left(\mathrm{cm}^{2}\right)$ and square metres $\left(m^{2}\right)$ and estimate the area of irregular shapes |  |  |
| Measurement |  | Unit 6 | Measure area and perimeter | 5 | Calculating area (2) | Calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres $\left(\mathrm{cm}^{2}\right)$ and square metres $\left(m^{2}\right)$ and estimate the area of irregular shapes |  |  |
| Measurement |  | Unit 6 | Measure area and perimeter | 6 | Comparing area | Calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres ( $\mathrm{cm}^{2}$ ) and square metres $\left(\mathrm{m}^{2}\right)$ and estimate the area of irregular shapes |  |  |
| Measurement |  | Unit 6 | Measure area and perimeter | 7 | Estimating area | Calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres $\left(\mathrm{cm}^{2}\right)$ and square metres $\left(\mathrm{m}^{2}\right)$ and estimate the area of irregular shapes |  |  |

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| Textbook A / <br> Practice Book A | Number - number and place value | 1 | Place value within 100,000 | 8 |
|  | Number - number and place value | 2 | Place value within 1,000,000 | 8 |
| (Term 1) | Number - addition and subtraction | 3 | Addition and subtraction | 10 |
|  | Statistics | 4 | Graphs and tables | 5 |
|  | Number - multiplication and division | 5 | Multiplication and division (1) | 10 |
|  | Measurement | 6 | Measure - area and perimeter | 7 |
| Textbook B / <br> Practice Book B | Number - multiplication and division | 7 | Multiplication and division (2) | 11 |
|  | Number - fractions (including decimals and percentages) | 8 | Fractions (1) | 8 |
| (Term 2) | Number - fractions (including decimals and percentages) | 9 | Fractions (2) | 12 |
|  | Number - fractions (including decimals and percentages) | 10 | Fractions (3) | 7 |
|  | Number - fractions (including decimals and percentages) | 11 | Decimals and percentages | 12 |
| Textbook C / <br> Practice Book C | Number - fractions (including decimals and percentages) | 12 | Decimals | 15 |
|  | Geometry - properties of shapes | 13 | Geometry - properties of shapes (1) | 7 |
| (Term 3) | Geometry - properties of shapes | 14 | Geometry - properties of shapes (2) | 5 |
|  | Geometry - position and direction | 15 | Geometry - position and direction | 4 |
|  | Measurement | 16 | Measure - converting units | 10 |
|  | Measurement | 17 | Measure - volume and capacity | 4 |

## Power Maths Year 5, Textbook 5B (Term 2) Overview

| Strand 1 | Unit |  | Lesson number | Lesson title | NC Objective 1 | NC Objective 2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number multiplication and division | $\begin{aligned} & \text { Unit } \\ & 7 \end{aligned}$ | Multiplication and division (2) | 1 | Multiplying numbers up to 4 digits by a 1 -digit number | 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 |  |
| Number multiplication and division | Unit $7$ | Multiplication and division (2) | 2 | Multiplying 2-digit numbers (1) | Multiply and divide numbers mentally drawing upon known facts |  |
| Number multiplication and division | Unit 7 | Multiplication and division (2) | 3 | Multiplying 2-digit numbers (2) | Multiply and divide numbers mentally drawing upon known facts |  |
| Number multiplication and division | Unit 7 | Multiplication and division (2) | 4 | Multiplying 2-digit numbers (3) | 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 |  |
| Number multiplication and division | Unit $7$ | Multiplication and division (2) | 5 | Multiplying a 3-digit number by a 2-digit number | 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 |  |
| Numbermultiplication and division | Unit $7$ | Multiplication and division <br> (2) | 6 | Multiplying a 4-digit number by a 2-digit number | 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 |  |
| Number multiplication and division | Unit $7$ | Multiplication and division (2) | 7 | Dividing up to a 4-digit number by a 1-digit number (1) | 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 |  |
| Number multiplication and division | Unit $7$ | Multiplication and division (2) | 8 | Dividing up to a 4-digit number by a 1-digit number (2) | 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 |  |


| Strand 1 | Unit |  | Lesson number | Lesson title | NC Objective 1 | NC Objective 2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number multiplication and division | $\begin{array}{\|l\|} \hline \text { Unit } \\ 7 \end{array}$ | Multiplication and division (2) | 9 | Division with remainders (1) | 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 |  |
| Number multiplication and division | $\begin{array}{\|l\|} \hline \text { Unit } \\ 7 \end{array}$ | Multiplication and division (2) | 10 | Division with remainders (2) | 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 |  |
| Number multiplication and division | $\begin{array}{\|l\|} \hline \text { Unit } \\ 7 \end{array}$ | Multiplication and division (2) | 11 | Problem solving - division with remainders | 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 |  |
| Number - fractions (including decimals and percentages) | $\begin{array}{\|l} \hline \text { Unit } \\ 8 \end{array}$ | Fractions (1) | 1 | Equivalent fractions | Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths |  |
| Number - fractions (including decimals and percentages) | Unit 8 | Fractions (1) | 2 | Converting improper fractions to mixed numbers | 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, $\left.\frac{2}{5}+\frac{4}{5}=\frac{6}{5}=1 \frac{1}{5}\right]$ |  |
| Number - fractions (including decimals and percentages) | $\begin{array}{\|l} \hline \text { Unit } \\ 8 \end{array}$ | Fractions (1) | 3 | Converting mixed numbers to improper fractions | 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, $\left.\frac{2}{5}+\frac{4}{5}=\frac{6}{5}=1 \frac{1}{5}\right]$ |  |
| Number - fractions (including decimals and percentages) | $\begin{array}{\|l} \hline \text { Unit } \\ 8 \end{array}$ | Fractions (1) | 4 | Number sequences | Compare and order fractions whose denominators are all multiples of the same number |  |
| Number - fractions (including decimals and percentages) | $\begin{array}{\|l\|} \hline \text { Unit } \\ 8 \end{array}$ | Fractions (1) | 5 | Comparing and ordering fractions (1) | Compare and order fractions whose denominators are all multiples of the same number |  |
| Number - fractions (including decimals and percentages) | Unit 8 | Fractions (1) | 6 | Comparing and ordering fractions (2) | Compare and order fractions whose denominators are all multiples of the same number | Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements $>1$ as a mixed number [for example, $\frac{2}{5}+\frac{4}{5}=$ $\left.\frac{6}{5}=1 \frac{1}{5}\right]$ |
| Number - fractions (including decimals and percentages) | $\begin{array}{\|l} \hline \text { Unit } \\ 8 \end{array}$ | Fractions (1) | 7 | Fractions as division (1) | 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, $\left.\frac{2}{5}+\frac{4}{5}=\frac{6}{5}=1 \frac{1}{5}\right]$ |  |
| Number - fractions (including decimals and percentages) | $\begin{array}{\|l\|} \hline \text { Unit } \\ 8 \end{array}$ | Fractions (1) | 8 | Fractions as division (2) | 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, $\left.\frac{2}{5}+\frac{4}{5}=\frac{6}{5}=1 \frac{1}{5}\right]$ |  |
| Number - fractions (including decimals and percentages) | $\begin{aligned} & \text { Unit } \\ & 9 \end{aligned}$ | Fractions (2) | 1 | Adding and subtracting fractions with the same denominator | Add and subtract fractions with the same denominator and denominators that are multiples of the same number |  |
| Number - fractions (including decimals and percentages) | $\begin{aligned} & \text { Unit } \\ & 9 \end{aligned}$ | Fractions (2) | 2 | Adding and subtracting fractions (1) | Add and subtract fractions with the same denominator and denominators that are multiples of the same number |  |
| Number - fractions (including decimals and percentages) | $\begin{aligned} & \text { Unit } \\ & 9 \end{aligned}$ | Fractions (2) | 3 | Adding and subtracting fractions (2) | Add and subtract fractions with the same denominator and denominators that are multiples of the same number |  |
| Number - fractions (including decimals and percentages) | Unit 9 | Fractions (2) | 4 | Adding fractions (1) | 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, $\left.\frac{2}{5}+\frac{4}{5}=\frac{6}{5}=1 \frac{1}{5}\right]$ |
| Number - fractions (including decimals and percentages) | $\begin{array}{\|l\|} \hline \begin{array}{l} \text { Unit } \\ 9 \end{array} \\ \hline \end{array}$ | Fractions (2) | 5 | Adding fractions (2) | 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, $\frac{2}{5}+\frac{4}{5}=\frac{6}{5}=1 \frac{1}{5}$ |


| Strand 1 | Unit |  | Lesson number | Lesson title | NC Objective 1 | NC Objective 2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number - fractions (including decimals and percentages) | Unit $9$ | Fractions (2) | 6 | Adding fractions (3) | 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, $\frac{2}{5}+\frac{4}{5}=\frac{6}{5}=1 \frac{1}{5}$ |
| Number - fractions (including decimals and percentages) | $\begin{aligned} & \text { Unit } \\ & 9 \end{aligned}$ | Fractions (2) | 7 | Subtracting fractions (1) | 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, $\left.\frac{2}{5}+\frac{4}{5}=\frac{6}{5}=1 \frac{1}{5}\right]$ |
| Number - fractions (including decimals and percentages) | $\begin{aligned} & \text { Unit } \end{aligned}$ | Fractions (2) | 8 | Subtracting fractions (2) | 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, $\left.\frac{2}{5}+\frac{4}{5}=\frac{6}{5}=1 \frac{1}{5}\right]$ |
| Number - fractions (including decimals and percentages) | $\begin{aligned} & \text { Unit } \\ & 9 \end{aligned}$ | Fractions (2) | 9 | Subtracting fractions (3) | 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, $\frac{2}{5}+\frac{4}{5}=$ $\left.\frac{6}{5}=1 \frac{1}{5}\right]$ |
| Number - fractions (including decimals and percentages) | $\begin{aligned} & \text { Unit } \\ & 9 \end{aligned}$ | Fractions (2) | 10 | Subtracting fractions (4) | 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, $\left.\frac{2}{5}+\frac{4}{5}=\frac{6}{5}=1 \frac{1}{5}\right]$ |
| Number - fractions (including decimals and percentages) | $\begin{aligned} & \text { Unit } \\ & 9 \end{aligned}$ | Fractions (2) | 11 | Problem solving - mixed word problems (1) | Add and subtract fractions with the same denominator and denominators that are multiples of the same number |  |
| Number - fractions (including decimals and percentages) | $\begin{array}{\|l} \hline \begin{array}{l} \text { Unit } \\ 9 \end{array} \\ \hline \end{array}$ | Fractions (2) | 12 | Problem solving - mixed word problems (2) | Add and subtract fractions with the same denominator and denominators that are multiples of the same number |  |
| Number - fractions (including decimals and percentages) | $\begin{aligned} & \text { Unit } \\ & 10 \end{aligned}$ | Fractions (3) | 1 | Multiplying fractions (1) | 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, $\frac{2}{5}+\frac{4}{5}=\frac{6}{5}=1 \frac{1}{5}$ |
| Number - fractions (including decimals and percentages) | $\begin{aligned} & \text { Unit } \\ & 10 \end{aligned}$ | Fractions (3) | 2 | Multiplying fractions (2) | 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, $\frac{2}{5}+\frac{4}{5}=\frac{6}{5}=1 \frac{1}{5}$ |
| Number - fractions (including decimals and percentages) | $\begin{aligned} & \text { Unit } \\ & 10 \end{aligned}$ | Fractions (3) | 3 | Multiplying fractions (3) | 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, $\left.\frac{2}{5}+\frac{4}{5}=\frac{6}{5}=1 \frac{1}{5}\right]$ |
| Number - fractions (including decimals and percentages) | $\begin{aligned} & \text { Unit } \\ & 10 \end{aligned}$ | Fractions (3) | 4 | Multiplying fractions (4) | 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, $\left.\frac{2}{5}+\frac{4}{5}=\frac{6}{5}=1 \frac{1}{5}\right]$ |
| Number - fractions (including decimals and percentages) | $\begin{aligned} & \text { Unit } \\ & 10 \end{aligned}$ | Fractions (3) | 5 | Calculating fractions of amounts | Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams |  |
| Number - fractions (including decimals and percentages) | Unit $10$ | Fractions (3) | 6 | Using fractions as operators | 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, $\left.\frac{2}{5}+\frac{4}{5}=\frac{6}{5}=1 \frac{1}{5}\right]$ |
| Number - fractions (including decimals and percentages) | $\begin{aligned} & \text { Unit } \\ & 10 \end{aligned}$ | Fractions (3) | 7 | Problem solving - mixed word problems | Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams |  |
| Number - fractions (including decimals and percentages) | Unit 11 | Decimals and percentages | 1 | Writing decimals (1) | Read, write, order and compare numbers with up to three decimal places |  |
| Number - fractions (including decimals and percentages) | $\begin{aligned} & \text { Unit } \\ & 11 \end{aligned}$ | Decimals and percentages | 2 | Writing decimals (2) | Read, write, order and compare numbers with up to three decimal places |  |


| Strand 1 | Unit |  | Lesson number | Lesson title | NC Objective 1 | NC Objective 2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number - fractions (including decimals and percentages) | $\begin{array}{\|l\|} \hline \text { Unit } \\ 11 \end{array}$ | Decimals and percentages | 3 | Decimals as fractions (1) | Read and write decimal numbers as fractions [for example, $=\frac{71}{100}$ |  |
| Number - fractions (including decimals and percentages) | $\begin{array}{\|l} \hline \text { Unit } \\ 11 \end{array}$ | Decimals and percentages | 4 | Decimals as fractions (2) | Read and write decimal numbers as fractions [for example, $=\frac{71}{100}$ |  |
| Number - fractions (including decimals and percentages) | $\begin{array}{\|l} \hline \text { Unit } \\ 11 \end{array}$ | Decimals and percentages | 5 | Understanding thousandths | Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents |  |
| Number - fractions (including decimals and percentages) | $\begin{aligned} & \text { Unit } \\ & 11 \end{aligned}$ | Decimals and percentages | 6 | Writing thousandths as decimals | Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents |  |
| Number - fractions (including decimals and percentages) | $\begin{array}{\|l} \hline \text { Unit } \\ 11 \end{array}$ | Decimals and percentages | 7 | Ordering and comparing decimals (1) | Read, write, order and compare numbers with up to three decimal places |  |
| Number - fractions (including decimals and percentages) | Unit 11 | Decimals and percentages | 8 | Ordering and comparing decimals (2) | Read, write, order and compare numbers with up to three decimal places |  |
| Number - fractions (including decimals and percentages) | $\begin{aligned} & \text { Unit } \\ & 11 \end{aligned}$ | Decimals and percentages | 9 | Rounding decimals | Round decimals with two decimal places to the nearest whole number and to one decimal place |  |
| Number - fractions (including decimals and percentages) | $\begin{aligned} & \text { Unit } \\ & 11 \end{aligned}$ | Decimals and percentages | 10 | Understanding 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 |  |
| Number - fractions (including decimals and percentages) | $\begin{array}{\|l} \hline \text { Unit } \\ 11 \end{array}$ | Decimals and percentages | 11 | Percentages as fractions and decimals | 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 |  |
| Number - fractions (including decimals and percentages) | $\begin{aligned} & \text { Unit } \\ & 11 \end{aligned}$ | Decimals and percentages | 12 | Equivalent fractions, decimals and percentages | 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 | Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths |

## Power Maths Year 5, yearly overview

| Textbook | Strand | Unit |  | Number of Lessons |
| :---: | :---: | :---: | :---: | :---: |
| Textbook A / Practice Book A | Number - number and place value | 1 | Place value within 100,000 | 8 |
|  | Number - number and place value | 2 | Place value within 1,000,000 | 8 |
| (Term 1) | Number - addition and subtraction | 3 | Addition and subtraction | 10 |
|  | Statistics | 4 | Graphs and tables | 5 |
|  | Number - multiplication and division | 5 | Multiplication and division (1) | 10 |
|  | Measurement | 6 | Measure - area and perimeter | 7 |
| Textbook B / Practice Book B | Number - multiplication and division | 7 | Multiplication and division (2) | 11 |
|  | Number - fractions (including decimals and percentages) | 8 | Fractions (1) | 8 |
| (Term 2) | Number - fractions (including decimals and percentages) | 9 | Fractions (2) | 12 |
|  | Number - fractions (including decimals and percentages) | 10 | Fractions (3) | 7 |
|  | Number - fractions (including decimals and percentages) | 11 | Decimals and percentages | 12 |
| Textbook C / Practice Book C <br> (Term 3) | Number - fractions (including decimals and percentages) | 12 | Decimals | 15 |
|  | Geometry - properties of shapes | 13 | Geometry - properties of shapes (1) | 7 |
|  | Geometry - properties of shapes | 14 | Geometry - properties of shapes (2) | 5 |
|  | Geometry - position and direction | 15 | Geometry - position and direction | 4 |
|  | Measurement | 16 | Measure - converting units | 10 |
|  | Measurement | 17 | Measure - volume and capacity | 4 |

## Power Maths Year 5, Textbook 5C (Term 3) Overview

| Strand 1 | Strand 2 | Unit | Lesson number | Lesson title | NC Objective 1 | NC Objective 2 | NC Objective 3 | NC Objective 3 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number fractions (including decimals and percentages) |  | $\begin{aligned} & \text { Unit } \\ & 12 \end{aligned}$ | Decimals | 1 | Adding and subtracting decimals (1) | Solve problems involving number up to three decimal places |  |  |
| Number fractions (including decimals and percentages) |  | $\begin{aligned} & \text { Unit } \\ & 12 \end{aligned}$ | Decimals | 2 | Adding and subtracting decimals (2) | Solve problems involving number up to three decimal places |  |  |
| Number fractions (including decimals and percentages) |  | $\begin{aligned} & \text { Unit } \\ & 12 \end{aligned}$ | Decimals | 3 | Adding and subtracting decimals (3) | Solve problems involving number up to three decimal places |  |  |
| Number fractions (including decimals and percentages) |  | $\begin{array}{\|l} \hline \text { Unit } \\ 12 \end{array}$ | Decimals | 4 | Adding and subtracting decimals (4) | Solve problems involving number up to three decimal places |  |  |
| Number fractions (including decimals and percentages) |  | $\begin{aligned} & \text { Unit } \\ & 12 \end{aligned}$ | Decimals | 5 | Adding and subtracting decimals (5) | Solve problems involving number up to three decimal places |  |  |
| Number fractions (including decimals and percentages) |  | $\begin{aligned} & \text { Unit } \\ & 12 \end{aligned}$ | Decimals | 6 | Adding and subtracting decimals (6) | Solve problems involving number up to three decimal places |  |  |


| Strand 1 | Strand 2 | Unit | Lesson number | Lesson title | NC Objective 1 | NC Objective 2 | NC Objective 3 | NC Objective 3 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number fractions (including decimals and percentages) |  | Unit 12 | Decimals | 7 | Adding and subtracting decimals (7) | Solve problems involving number up to three decimal places |  |  |
| Number fractions (including decimals and percentages) |  | $\begin{aligned} & \text { Unit } \\ & 12 \end{aligned}$ | Decimals | 8 | Adding and subtracting decimals (8) | Solve problems involving number up to three decimal places |  |  |
| Number fractions (including decimals and percentages) |  | Unit 12 | Decimals | 9 | Decimal sequences | Read, write, order and compare numbers with up to three decimal places |  |  |
| Number fractions (including decimals and percentages) |  | Unit 12 | Decimals | 10 | Problem solving decimals (1) | Solve problems involving number up to three decimal places |  |  |
| Numberfractions (including decimals and percentages) |  | Unit 12 | Decimals | 11 | Problem solving decimals (2) | Solve problems involving number up to three decimal places |  |  |
| Number fractions (including decimals and percentages) |  | Unit <br> 12 | Decimals | 12 | Multiplying decimals by 10 | Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents | Solve problems involving number up to three decimal places |  |
| Number fractions (including decimals and percentages) |  | $\begin{aligned} & \text { Unit } \\ & 12 \end{aligned}$ | Decimals | 13 | Multiplying decimals by 10 , 100 and 1,000 | Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents | Solve problems involving number up to three decimal places |  |
| Number fractions (including decimals and percentages) |  | Unit <br> 12 | Decimals | 14 | Dividing decimals by 10 | Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents | Solve problems involving number up to three decimal places |  |
| Number fractions (including decimals and percentages) |  | Unit 12 | Decimals | 15 | Dividing decimals by 10 , 100 and 1,000 | Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents | Solve problems involving number up to three decimal places |  |
| Geometry properties of shapes |  | $\begin{aligned} & \text { Unit } \\ & 13 \end{aligned}$ | Geometry properties of shapes (1) | 1 | Measuring angles in degrees | Identify: <br> -angles at a point and one whole turn (total $360^{\circ}$ ) -angles at a point on a straight line and <stacked fraction $>\frac{1}{2}$ a turn (total $180^{\circ}$ ) -other multiples of $90^{\circ}$ | Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles |  |
| Geometry properties of shapes |  | Unit 13 | Geometry properties of shapes (1) | 2 | Measuring with a protractor (1) | Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles | Draw given angles, and measure them in degrees ( ${ }^{\circ}$ ) |  |
| Geometry properties of shapes |  | $\begin{aligned} & \text { Unit } \\ & 13 \end{aligned}$ | Geometry properties of shapes (1) | 3 | Measuring with a protractor (2) | Identify: <br> -angles at a point and one whole turn (total $360^{\circ}$ ) -angles at a point on a straight line and <stacked fraction $>\frac{1}{2}$ a turn (total $180^{\circ}$ ) -other multiples of $90^{\circ}$ | Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles | Draw given angles, and measure them in degrees $\left({ }^{\circ}\right)$ |
| Geometry properties of shapes |  | $\begin{aligned} & \text { Unit } \\ & 13 \end{aligned}$ | Geometry properties of shapes (1) | 4 | Drawing lines and angles accurately | Draw given angles, and measure them in degrees ( ${ }^{\circ}$ ) |  |  |
| Geometry properties of shapes |  | $\begin{aligned} & \text { Unit } \\ & 13 \end{aligned}$ | Geometry properties of shapes (1) | 5 | Calculating angles on a straight line | Identify: <br> -angles at a point and one whole turn (total $360^{\circ}$ ) -angles at a point on a straight line and <stacked fraction $>\frac{1}{2}$ a turn (total $180^{\circ}$ ) -other multiples of $90^{\circ}$ |  |  |
| Geometry properties of shapes |  | Unit 13 | Geometry properties of shapes (1) | 6 | Calculating angles around a point | Identify: <br> -angles at a point and one whole turn (total $360^{\circ}$ ) -angles at a point on a straight line and <stacked fraction> $\frac{1}{2}$ a turn (total $180^{\circ}$ ) -other multiples of $90^{\circ}$ |  |  |


| Strand 1 | Strand 2 | Unit | Lesson number | Lesson title | NC Objective 1 | NC Objective 2 | NC Objective 3 | NC Objective 3 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Geometry properties of shapes |  | Unit 13 | Geometry properties of shapes (1) | 7 | Calculating lengths and angles in shapes | Use the properties of rectangles to deduce related facts and find missing lengths and angles |  |  |
| Geometry properties of shapes |  | Unit 14 | Geometry properties of shapes (2) | 1 | Recognising and drawing parallel lines | Use the properties of rectangles to deduce related facts and find missing lengths and angles | Identify: <br> -angles at a point and one whole turn (total $360^{\circ}$ ) -angles at a point on a straight line and <stacked fraction $>\frac{1}{2}$ a turn (total $180^{\circ}$ ) -other multiples of $90^{\circ}$ |  |
| Geometry properties of shapes |  | Unit 14 | Geometry properties of shapes (2) | 2 | Recognising and drawing perpendicular lines | Use the properties of rectangles to deduce related facts and find missing lengths and angles | Identify: <br> -angles at a point and one whole turn (total $360^{\circ}$ ) -angles at a point on a straight line and <stacked fraction $>\frac{1}{2}$ a turn (total $180^{\circ}$ ) -other multiples of $90^{\circ}$ |  |
| Geometry properties of shapes |  | $\begin{aligned} & \text { Unit } \\ & 14 \end{aligned}$ | Geometry properties of shapes (2) | 3 | Reasoning about parallel and perpendicular lines | Draw given angles, and measure them in degrees (o) | Identify: <br> -angles at a point and one whole turn (total $360^{\circ}$ ) -angles at a point on a straight line and <stacked fraction $>\frac{1}{2}$ a turn (total $180^{\circ}$ ) -other multiples of $90^{\circ}$ |  |
| Geometry properties of shapes |  | Unit 14 | Geometry properties of shapes (2) | 4 | Regular and irregular polygons | Distinguish between regular and irregular polygons based on reasoning about equal sides and angles |  |  |
| Geometry properties of shapes |  | Unit 14 | Geometry properties of shapes (2) | 5 | Reasoning about 3D shapes | Identify 3D shapes, including cubes and other cuboids, from 2D representations |  |  |
| Geometry position and direction |  | $\begin{aligned} & \text { Unit } \\ & 15 \end{aligned}$ | Geometry position and direction | 1 | Reflection | 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 |  |  |
| Geometry position and direction |  | $\begin{aligned} & \text { Unit } \\ & 15 \end{aligned}$ | Geometry position and direction | 2 | Reflection with coordinates | 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 |  |  |
| Geometry position and direction |  | Unit 15 | Geometry position and direction | 3 | Translation | 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 |  |  |
| Geometry position and direction |  | Unit $15$ | Geometry position and direction | 4 | Translation with coordinates | 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 |  |  |
| Measurement |  | Unit 16 | Measure converting units | 1 | Metric units (1) | Convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre) |  |  |
| Measurement |  | Unit $16$ | Measure converting units | 2 | Metric units (2) | Convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre) |  |  |
| Measurement |  | Unit 16 | Measure converting units | 3 | Metric units (3) | Use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling | Convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre) |  |


| Strand 1 | Strand 2 | Unit | Lesson <br> number | Lesson <br> title | NC Objective 1 | NC Objective 2 | NC Objective 3 |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Measurement |  | Unit <br> 16 | Measure - <br> converting <br> units | 4 |  | Metric units (4) | Use all four operations to <br> solve problems involving <br> measure [for example, <br> length, mass, volume, <br> money] using decimal <br> notation, including scaling | Convert between different <br> units of metric measure <br> (for example, kilometre and <br> metre; centimetre and metre; <br> centimetre and millimetre; <br> gram and kilogram; litre and <br> millilitre) | N |

