# BURFORD PRIMARY & NURSERY

SUBJECT: MATHS

LEADER: SARAH DAVIS

## INTENT

**We want to spark curiosity and excitement, and nurture our children's confidence in maths**. **We want to use Mathematics as a tool for children to develop the skills of analysis, critical thinking, collaboration and resilience.**

We aim to develop children who have the Mathematical foundations to enable them to them to thrive now and in later life. The transferable skills that they learn (critical thinking, resilience, reasoning and problem solving) will provide them with the opportunity to be successful and to access a wider range of future careers.

Mathematics is a creative and highly inter-connected discipline that has been developed over centuries, providing the solution to some of history's most intriguing problems. It is essential to everyday life, critical to science, technology and engineering, and necessary for financial literacy. Our high-quality mathematics curriculum therefore provides a foundation for understanding the world and empowers them to be successful.

## IMPLEMENTATION

**When does it happen at Burford?**

- Children will access a **daily Power Maths lesson** at a length appropriate to the age of learners and the point in their learning journey. The lesson is structured around 4 key stages: Discover, Think Together (teacher model and guided practise), Independent Practise, and Reflect. There are planning and resources designed by mathematic experts which ensure knowledge and skills build systematically, including providing opportunities for retrieval and consolidation. Because we follow this consistently as a school, children build their knowledge of methods to depth and using familiar representations which build in sophistication.

- They will also access **Rapid Retrieval** to promote fluency in arithmetic. This will consist of 5 questions in 5 minutes as standard. The number of questions may build over the year in response to the speed of the class. The whole session will last approximately 15 minutes to allow time for modelling of the answers.

- Children will use **quality digital tools** that we subscribe to (Numbots, Times Table Rockstars, Magma Maths and Prodigy). The use of these apps will be planned for within the curriculum.

# *MUSIC* CURRICULUM COVERAGE MAP

| | Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1 | Summer 2 |
|---|---|---|---|---|---|---|
| F1 | See nursery maths curriculum | See nursery maths curriculum | See nursery maths curriculum | See nursery maths curriculum | See nursery maths curriculum | See nursery maths curriculum |
| F2 | Unit 1 – Numbers to 5<br>Unit 2 – Comparing groups within 5<br>Unit 3 - Shape | Unit 4 – Change within 5<br>Unit 5 – Number bonds within 5<br>Unit 6 - Space | Unit 7 – Numbers to 10<br>Unit 8 – Comparing numbers within 10.<br>Unit 9 – Addition to 10<br>Unit 10 - Measure | Unit 11 – Number bonds to 10<br>Unit 12 – Subtraction<br>Unit 13 – Exploring patterns | Unit 14 – Counting on and counting back<br>Unit 15 – Numbers to 20<br>Unit 16 – Numerical patterns | Unit 17 – Shape<br>Unit 18 – Measure<br>Unit 19 – Sorting<br>Unit 20 – Time |
| Y1 | Unit 1 – Numbers to 10<br>Unit 2 – Part-whole within 10 | Unit 3 – Addition within 10<br>Unit 4 – Subtraction within 10<br>Unit 5 – 2D and 3D shapes | Unit 6 – Numbers to 20<br>Unit 7 – Addition and subtraction within 20 | Unit 8 – Numbers to 50<br>Unit 9 – Introducing length and height<br>Unit 10 – Introducing weight and volume | Unit 11 – Multiplication and division<br>Unit 12 – Halves and quarters<br>Unit 13 – Position and direction | Unit 14 – Numbers to 100<br>Unit 15 – Money<br>Unit 16 - Time |
| Y2 | Unit 1 – Numbers to 100<br>Unit 2 – Addition and subtraction (1) | Unit 3 – Addition and subtraction (2)<br>Unit 4 – Properties of shape | Unit 5 – Money<br>Unit 6 – Multiplication and division (1)<br>Unit 7 – Multiplication and division (2) | Unit 8 – Length and height<br>Unit 9 – Mass, capacity and temperature<br>Unit 10 - Statistics | Unit 11 – Fractions<br>Unit 12 – Position and direction | Unit 13 – Time<br>Unit 14 – Problem solving and efficient methods |

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|---|---|---|---|---|---|---|
| Y3 | Unit 1 – Place value within 1000<br>Unit 2 – Addition and Subtraction (1)<br>Unit 3 – Addition and subtraction (2) | Unit 3 – Addition and subtraction (2) continued<br>Unit 4 – Multiplication and Division (1)<br>Unit 5 – Multiplication and division (2) | Unit 6 – Multiplication and division (3)<br>Unit 7 – Length and perimeter | Unit 8 – Fractions (1)<br>Unit 9 – Length<br>Unit 10 - Capacity | Unit 11 – Fractions (2)<br>Unit 12 - Money | Unit 13 – Time<br>Unit 14 – Angles and properties of shapes<br>Unit 15 - Statistics |
| Y4 | Unit 1 – Place value – 4 digits (1)<br>Unit 2 – Place value – 4 digits (2)<br>Unit 3 – Addition and subtraction | Unit 3 – Addition and subtraction continued<br>Unit 4 – Measure – area<br>Unit 5 – Multiplication and division (1) | Unit 6 – Multiplication and Division (2)<br>Unit 7 – Length and perimeter | Unit 8 – Fractions (1)<br>Unit 9 – Fractions (2)<br>Unit 10 – Decimals (1) | Unit 11 – Decimals (2)<br>Unit 12 – Money<br>Unit 13 - Time | Unit 14 – Geometry – angles and 2D shapes<br>Unit 15 – Statistics<br>Unit 16 – Geometry – position and direction |
| Y5 | Unit 1 – Place value within 1,000,000 (1)<br>Unit 2 – Place value within 1,000,000 (2)<br>Unit 3 – Addition and subtraction | Unit 4 – Multiplication and division (1)<br>Unit 5 – Fractions (1)<br>Unit 6 – Fractions (2) | Unit 7 – Multiplication and division (2)<br>Unit 8 – Fractions<br>Unit 9 – Decimals and percentages | Unit 9 – Decimals and percentages continued<br>Unit 10 – Measure- perimeter and area<br>Unit 11 – Graphs and tables | Unit 12 – Geometry – properties of shapes<br>Unit 13 – Geometry – position and directions<br>Unit 14 - Decimals | Unit 14 – Decimals continued<br>Unit 15 – Negative numbers<br>Unit 16 – Measure – converting units<br>Unit 17 – Measure - volume |
| Y6 | Unit 1 – Place value within 10,000,000<br>Unit 2 – Four operations (1)<br>Unit 3 – Four operations (2) | Unit 4 – Fractions (1)<br>Unit 5 – Fractions (2)<br>Unit 6 – Measure – imperial and metric measures | Unit 7 – Ratio and proportion<br>Unit 8 – Algebra<br>Unit 9 - Decimals | Unit 9 – Decimals continued<br>Unit 10 – Percentages<br>Unit 11 – Measure – perimeter, area and volume | Unit 12 – Statistics<br>Unit 13 – Geometry – properties of shape | Unit 14 – Geometry – position and direction<br>Unit 15 – Problem solving |

# National curriculum to *Power Maths* matching chart

## Reception

| National curriculum<br>Early Years | *Power Maths* | |
|---|---|---|
| **Early Learning Goal 2021** | **Reception** | **Year 1** |
| **Number**<br>Have a deep understanding of number to 10, including the composition of each number. | • Reception A – Unit 1: Numbers to 5, Weeks 1 (3), 2 (4) and 3 (5)<br>• Reception A – Unit 5: Number bonds within 5, Week 10<br>• Reception B – Unit 7: Numbers to 10, Weeks 1 and 2<br>• Reception B – Unit 8: Comparing numbers within 10, Week 3<br>• Reception B – Unit 9: Addition to 10, Week 4<br>• Reception B – Unit 11: Number bonds to 10, Weeks 7 and 8<br>• Reception B – Unit 12: Subtraction, Week 9<br>• Reception C – Unit 14: Counting on and counting back, Weeks 1 and 2 | • Textbook 1A, Unit 1: Numbers to 10, Lessons 2, 3, 4, 7, 8, 9–12<br>• Textbook 1A, Unit 2: Part–whole within 10, Lessons 1–5<br>• Textbook 1A, Unit 6: Numbers to 20, Lessons 2, 3, 5, 6 |

| National curriculum<br>Early Years | *Power Maths* | |
|---|---|---|
| **Early Learning Goal 2021** | **Reception** | **Year 1** |
| **Number**<br>Subitise (recognise quantities without counting) up to 5. | • Subitising is covered throughout Power Maths Reception and is woven into all lessons. | • Textbook 1A, Unit 1: Numbers to 10, Lessons 2, 3, 5, 6<br>• Textbook 1A, Unit 2: Part–whole within 10, Lessons 1–5 |
| Automatically recall number bonds up to 5 and some number bonds to 10, including double facts. | • Reception A – Unit 5: Number bonds within 5, Week 10<br>• Reception B – Unit 9: Addition to 10, Week 4<br>• Reception B – Unit 11: Number bonds to 10, Weeks 7 and 8 | • Textbook 1A Unit 2: Part-whole within 10, Lessons 1–5,<br>• Textbook 1A, Unit 3: Addition and subtraction within 10 (1), Lessons 1–6<br>• Textbook 1A, Unit 4: Addition and subtraction within 10 (2), Lessons 1–12<br>• Textbook 1A, Unit 6: Numbers to 20, Lesson 4 |
| **Numerical Patterns**<br>Verbally count beyond 20, recognising the pattern of the counting system. | • Reception A – Unit 1: Numbers to 5, Weeks 1 (3), 2 (4) and 3 (5)<br>• Reception B – Unit 7: Numbers to 10, Weeks 1 and 2<br>• Reception C – Unit 14: Counting on and counting back, Weeks 1 and 2<br>• Reception C – Unit 15: Numbers to 20, Week 3 | • Textbook 1A, Unit 1: Lessons 2–12<br>• Textbook 1A, Unit 6: Numbers to 20, Lesson 1 |

| National curriculum<br>Early Years | *Power Maths* | |
|---|---|---|
| **Early Learning Goal 2021** | **Reception** | **Year 1** |
| **Numerical Patterns**<br>Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity. | • Reception A – Unit 2: Comparing groups within 5, Weeks 4 and 5<br>• Reception A – Unit 4: Change within 5, Weeks 8 and 9<br>• Reception B – Unit 8: Comparing numbers within 10, Week 3<br>• Reception B – Unit 9: Addition to 10, Week 4<br>• Reception B – Unit 10: Measure, Weeks 5 and 6<br>• Reception C – Unit 18: Measure, Week 8 | • Textbook 1A, Unit 1: Numbers to 10, Lessons 5–10<br>• Textbook 1A, Unit 6: Numbers to 20, Lessons 1–7 |
| Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally. | • Reception C – Unit 16: Numerical patterns, Weeks 4, 5 and 6 | • Textbook 1A, Unit 1: Numbers to 10, Lessons 9–12<br>• Textbook 1A, Unit 2: Part–whole within 10, Lesson 4<br>• Textbook 1A, Unit 6: Numbers to 20, Lessons 2, 3, 5, 6 |

# National curriculum to *Power Maths* matching chart KS1

## Year 1

| National curriculum programmes of study Year 1 | | *Power Maths* | |
|---|---|---|---|
| **Domain** | **Pupils should be taught to:** | **Year 1** | **Year 2** |
| Number – number and place value | • Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number. | • Textbook 1A – Unit 1, Numbers to 10, Lessons 2–4 (10)<br>• Textbook 1A – Unit 6, Numbers to 20, Lesson 1 (20)<br>• Textbook 1B – Unit 9, Numbers to 50, Lessons 1 and 2 (50)<br>• Textbook 1C – Unit 16, Numbers to 100, Lesson 1 | • Textbook 2A – Unit 1, Numbers to 100, Lesson 1 |
| | • Count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens. | • Textbook 1A – Unit 1, Numbers to 10, Lessons 3 and 4 (10)<br>• Textbook 1B – Unit 9, Numbers to 50, Lessons 8 and 9 (2s, 5s)<br>• Textbook 1C – Unit 12, Multiplication, Lesson 1<br>• Textbook 1C – Unit 16, Numbers to 100, Lessons 1 and 2<br>• Textbook 1C – Unit 18, Money, Lesson 3 | • Textbook 2A – Unit 1, Numbers to 100, Lessons 1–5 and 9<br>• Textbook 2A – Unit 5, Multiplication and division (1), Lessons 1–8 |
| | • Given a number, identify one more and one less. | • Textbook 1A – Unit 1, Numbers to 10, Lessons 5 and 6<br>• Textbook 1A – Unit 6, Numbers to 20, Lesson 4<br>• Textbook 1B – Unit 9, Numbers to 50, Lesson 5<br>• Textbook 1C – Unit 16, Numbers to 100, Lesson 2 | |

| National curriculum programmes of study Year 1 | | *Power Maths* | |
|---|---|---|---|
| **Domain** | **Pupils should be taught to:** | **Year 1** | **Year 2** |
| | • Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least. | • Textbook 1A – Unit 1, Numbers to 10, Lessons 1, 2, 5–12<br>• Textbook 1A – Unit 6, Numbers to 20, Lessons 1–7<br>• Textbook 1B – Unit 9, Numbers to 50, Lessons 3–7<br>• Textbook 1C – Unit 16, Numbers to 100, Lessons 1, 3–7 | • Textbook 1A – Unit 1, Numbers to 100, Lessons 2–6 and 10 |
| | • Read and write numbers from 1 to 20 in numerals and words. | • Textbook 1A – Unit 1, Numbers to 10, Lesson 3 (10) | |
| Number – addition and subtraction | • Read, write and interpret mathematical statements involving addition (+), subtraction (−) and equals (=) signs. | • Textbook 1A – Unit 2, Part-whole within 10, Lessons 2 and 3<br>• Textbook 1A – Unit 3, Addition and subtraction within 10 (1), Lesson 5<br>• Textbook 1A – Unit 4, Addition and subtraction within 10 (2), Lessons 7–12<br>• Textbook 1B – Unit 8, Subtraction within 20, Lesson 7 | • Textbook 2A – Unit 2, Addition and subtraction (1), Lessons 1, 3 and 4 |
| | • Represent and use number bonds and related subtraction facts within 20. | • Textbook 1A – Unit 2, Part-whole within 10, Lessons 1–5<br>• Textbook 1A – Unit 3, Addition and subtraction within 10 (1), Lessons 1–6 (10)<br>• Textbook 1A – Unit 4, Addition and subtraction within 10 (2), Lessons 1–6 (10)<br>• Textbook 1B – Unit 7, Addition within 20, Lessons 2–6<br>• Textbook 1B – Unit 8, Subtraction within 20, Lessons 1–4 and 6<br>• Textbook 1C – Unit 16, Numbers to 100, Lessons 8 and 9 | |

| National curriculum programmes of study Year 1 | | *Power Maths* | |
|---|---|---|---|
| **Domain** | **Pupils should be taught to:** | **Year 1** | **Year 2** |
| | • Add and subtract one-digit and two-digit numbers to 20, including zero. | • Textbook 1A – Unit 4, Addition and subtraction within 10 (2), Lessons 7–9 and 12<br>• Textbook 1B – Unit 7, Addition within 20, Lessons 1–6<br>• Textbook 1B – Unit 8, Subtraction within 20, Lessons 1–4 | • Textbook 2A – Unit 2, Addition and subtraction (1), Lessons 9–12 |
| | • Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = □ − 9. | • Textbook 1A – Unit 3, Addition and subtraction within 10 (1), Lesson 6<br>• Textbook 1A – Unit 4, Addition and subtraction within 10 (2), Lessons 1, 2 and 7–12<br>• Textbook 1B – Unit 7, Addition within 20, Lesson 6<br>• Textbook 1B – Unit 8, Subtraction within 20, Lessons 5, 7 and 8<br>• Textbook 1B – Unit 9, Numbers to 50, Lessons 10 and 11<br>• Textbook 1B – Unit 10, Introducing length and height, Lesson 5<br>• Textbook 1B – Unit 11, Introducing weight and volume, Lesson 7<br>• Textbook 1C – Unit 17, Time, Lesson 7 | • Textbook 2C – Unit 12, Problem solving and efficient methods, Lessons 10 |
| Number – multiplication and division | • Solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher. | • Textbook 1C – Unit 12, Multiplication, Lessons 2–6<br>• Textbook 1C – Unit 13, Division, Lessons 1–5 | • Textbook 2A – Unit 5, Multiplication and division (1), Lessons 1 and 3 |
| Number – fractions | • Recognise, find and name a half as one of two equal parts of an object, shape or quantity. | • Textbook 1C – Unit 14, Halves and quarters, Lessons 1, 2 and 5 | • Textbook 2B – Unit 10, Fractions, Lessons 1–4 |

| National curriculum programmes of study Year 1 | | *Power Maths* | |
|---|---|---|---|
| **Domain** | **Pupils should be taught to:** | **Year 1** | **Year 2** |
| | • Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity. | • Textbook 1C – Unit 14, Halves and quarters, Lessons 3–5 | • Textbook 2B – Unit 10, Fractions, Lessons 5 and 6 |
| Measurement | • Compare, describe and solve practical problems for:<br>– lengths and heights (for example, long/short, longer/shorter, tall/short, double/half)<br>– mass/weight (for example, heavy/light, heavier than, lighter than)<br>– capacity and volume (for example, full/empty, more than, less than, half, half full, quarter)<br>– time (for example, quicker, slower, earlier, later). | • Textbook 1B – Unit 10, Introducing length and height, Lessons 1 and 5<br>• Textbook 1B – Unit 11, Introducing weight and volume, Lessons 1–7<br>• Textbook 1C – Unit 17, Time, Lessons 6 and 7 | • Textbook 2B – Unit 8, Length and height, Lesson 1<br>• Textbook 2C – Unit 14, Weight, volume and temperature, Lessons 1 and 5 |
| | • Measure and begin to record the following:<br>– lengths and heights<br>– mass/weight<br>– capacity and volume<br>– time (hours, minutes, seconds). | • Textbook 1B – Unit 10, Introducing length and height, Lessons 2–4<br>• Textbook 1B – Unit 11, Introducing weight and volume, Lesson 6<br>• Textbook 1C – Unit 17, Time, Lesson 5 | • Textbook 2B – Unit 8, Length and height, Lessons 1–3<br>• Textbook 2C – Unit 13, Time, Lessons 1–9<br>• Textbook 2C – Unit 14, Weight, volume and temperature, Lessons 2–4, 6–8 |
| | • Recognise and know the value of different denominations of coins and notes. | • Textbook 1C – Unit 18, Money, Lessons 1–3 | • Textbook 2A – Unit 4, Money, Lessons 1, 2, 4–6 |
| | • Sequence events in chronological order using language (for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening). | • Textbook 1C – Unit 17, Time, Lesson 1 | |
| | • Recognise and use language relating to dates, including days of the week, weeks, months and years. | • Textbook 1C – Unit 17, Time, Lesson 2 | |

| National curriculum programmes of study Year 1 | | *Power Maths* | |
|---|---|---|---|
| **Domain** | **Pupils should be taught to:** | **Year 1** | **Year 2** |
| | • Tell the time to the hour and half past the hour and draw the hands on a clock face to show these times. | • Textbook 1C – Unit 17, Time, Lessons 3 and 4 | • Textbook 2C – Unit 13, Time, Lesson 1 |
| Geometry – properties of shape | • Recognise and name common 2D and 3D shapes, including:<br>– 2D shapes (for example, rectangles (including squares), circles and triangles)<br>– 3D shapes (for example, cuboids (including cubes), pyramids and spheres). | • Textbook 1A – Unit 5, Lessons 1–5 | • Textbook 2B – Unit 9, Properties of shapes, Lesson 1 |
| Geometry – position and direction | • Describe position, direction and movement, including whole, half, quarter and three-quarter turns. | • Textbook 1C – Unit 15, Position and direction, Lessons 1–3 | • Textbook 2C – Unit 11, Position and direction, Lessons 2 and 3 |

## Year 2

| National curriculum programmes of study Year 2 | | *Power Maths* | |
|---|---|---|---|
| **Domain** | **Pupils should be taught to:** | **Year 1** | **Year 2** |
| Number – number and place value | • Count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward. | • Textbook 1B – Unit 9, Numbers to 50, Lessons 8 and 9 (2s and 5s)<br>• Textbook 1C – Unit 12, Multiplication, Lesson 1 (2s and 5s) | • Textbook 2A – Unit 1, Numbers to 100, Lessons 9 and 10<br>• Textbook 2A – Unit 2, Addition and subtraction (1), Lesson 7 |
| | • Recognise the place value of each digit in a two-digit number (tens, ones). | • Textbook 1A – Unit 6, Numbers to 20, Lessons 1 and 2<br>• Textbook 1B – Unit 9, Numbers to 50, Lesson 3<br>• Textbook 1C – Unit 16, Numbers to 100, Lessons 3 and 4 | • Textbook 2A – Unit 1, Numbers to 100, Lessons 3–5 |
| | • Identify, represent and estimate numbers using different representations, including the number line | | • Textbook 2A – Unit 1, Numbers to 100, Lessons 2–6 and 10 |
| | • Compare and order numbers from 0 up to 100; use <, > and = signs. | • Textbook 1A – Unit 6, Numbers to 20, Lessons 8 and 9 (20)<br>• Textbook 1B – Unit 9, Numbers to 50, Lessons 5 and 7 (50)<br>• Textbook 1C – Unit 16, Numbers to 100, Lessons 5 and 6 | • Textbook 2A – Unit 1, Numbers to 100, Lessons 6–8 |
| | • Read and write numbers to at least 100 in numerals and in words. | • Textbook 1C – Unit 16, Numbers to 100, Lessons 1 and 2 | • Textbook 2A – Unit 1, Numbers to 100, Lessons 1 and 2 |
| | • Use place value and number facts to solve problems. | | • Textbook 2C – Unit 12, Problem solving and efficient methods, Lessons 1–5, 7 and 10 |

| National curriculum programmes of study Year 2 | | *Power Maths* | |
|---|---|---|---|
| **Domain** | **Pupils should be taught to:** | **Year 1** | **Year 2** |
| Number – addition and subtraction | • Solve problems with addition and subtraction:<br>– using concrete objects and pictorial representations, including those involving numbers, quantities and measures<br>– applying their increasing knowledge of mental and written methods. | • Textbook 1A – Unit 3, Addition and subtraction within 10 (1), Lesson 6<br>• Textbook 1A – Unit 4, Addition and subtraction within 10 (2), Lesson 12<br>• Textbook 1B – Unit 7, Addition within 20, Lesson 6<br>• Textbook 1B – Unit 8, Subtraction within 20, Lesson 8<br>• Textbook 1B – Unit 9, Numbers to 50, Lessons 10 and 11 | • Textbook 2A – Unit 2, Addition and subtraction (1), Lessons 3–12<br>• Textbook 2A – Unit 3, Addition and subtraction (2), Lessons 1–9<br>• Textbook 2B – Unit 8, Length and height, Lesson 5<br>• Textbook 2C – Unit 12, Problem solving and efficient methods, Lessons 5, 8, 9 and 11 |
| | • Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100. | • Textbook 1C – Unit 16, Numbers to 100, Lessons 8 and 9 | • Textbook 2A – Unit 2, Addition and subtraction (1), Lessons 1–5 |
| | • Add and subtract numbers using concrete objects, pictorial representations, and mentally, including:<br>– a two-digit number and ones.<br>– a two-digit number and tens<br>– two two-digit numbers.<br>– adding three one-digit numbers. | | • Textbook 2A – Unit 2, Addition and subtraction (1), Lessons 6, 8–12<br>• Textbook 2A – Unit 3, Addition and subtraction (2), Lessons 1–7<br>• Textbook 2C – Unit 12, Problem solving and efficient methods, Lesson 10 |
| | • Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot. | | • Textbook 2A – Unit 2, Addition and subtraction (1), Lesson 2 |
| | • Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems. | | • Textbook 2A – Unit 2, Addition and subtraction (1), Lesson 2<br>• Textbook 2C – Unit 12, Problem solving and efficient methods, Lessons 1, 3, 4, 6, 7 and 11 |
| Number – multiplication and division | • Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers. | | • Textbook 2A – Unit 5, Multiplication and division (1), Lessons 6–8<br>• Textbook 2B – Unit 6, Multiplication and division (2), Lessons 3–6 |

| National curriculum programmes of study Year 2 | | *Power Maths* | |
|---|---|---|---|
| **Domain** | **Pupils should be taught to:** | **Year 1** | **Year 2** |
| | • Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs. | | • Textbook 2A – Unit 5, Multiplication and division (1), Lessons 2 and 5<br>• Textbook 2B – Unit 6, Multiplication and division (2), Lessons 1 and 2 |
| | • Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot. | | • Textbook 2C –– Unit 12, Problem solving and efficient methods, Lesson 12 |
| | • Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts. | | • Textbook 2A – Unit 5, Multiplication and division (1), Lessons 2–5 and 9<br>• Textbook 2B – Unit 6, Multiplication and division (2), Lessons 1–3 and 7–9<br>• Textbook 2C – Unit 12, Problem solving and efficient methods, Lesson 12 |
| Number – fractions | • Recognise, find, name and write fractions $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{4}$ and $\frac{3}{4}$ of a length, shape, set of objects or quantity. | | • Textbook 2B – Unit 10, Fractions, Lessons 5–7 and 10–12 |
| | • Write simple fractions for example, $\frac{1}{2}$ of 6 = 3 and recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$. | | • Textbook 2B – Unit 10, Fractions, Lessons 8, 9, 13 and 14 |
| Measurement | • Choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature (°C); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels. | • Textbook 1B – Unit 10, Introducing length and height, Lessons 4 and 5 | • Textbook 2B – Unit 8, Length and height, Lessons 1 and 2<br>• Textbook 2C – Unit 14, Weight, volume and temperature, Lessons 2–4 and 6–10 |

| National curriculum programmes of study Year 2 | | *Power Maths* | |
|---|---|---|---|
| **Domain** | **Pupils should be taught to:** | **Year 1** | **Year 2** |
| | • Compare and order lengths, mass, volume/capacity and record the results using >, < and =. | • Textbook 1B – Unit 11, Introducing weight and volume, Lessons 3 and 6 | • Textbook 2B – Unit 8, Length and height, Lessons 3 and 4<br>• Textbook 2C – Unit 14, Weight, volume and temperature, Lessons 1 and 3–5 |
| | • Recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value. | • Textbook 1C – Unit 18, Money, Lesson 3 | • Textbook 2A – Unit 4, Money, Lessons 1–3 |
| | • Find different combinations of coins that equal the same amounts of money. | | • Textbook 2A – Unit 4, Money, Lessons 4 and 5 |
| | • Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change. | | • Textbook 2A – Unit 4, Money, Lessons 6–9 |
| | • Compare and sequence intervals of time. | | • Textbook 2C – Unit 13, Time, Lessons 5, 6 and 8 |
| | • Tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock face to show these times. | | • Textbook 2C – Unit 13, Time, Lessons 2 and 3 |
| | • Know the number of minutes in an hour and the number of hours in a day. | | • Textbook 2C – Unit 13, Time, Lessons 4, 7 and 9 |
| Geometry – properties of shapes | • Identify and describe the properties of 2D shapes, including the number of sides and line symmetry in a vertical line. | | • Textbook 2B – Unit 9, Properties of shapes, Lessons 2–5 |
| | • Identify and describe the properties of 3D shapes, including the number of edges, vertices and faces. | • Textbook 1A – Unit 5, 2D and 3D shapes, Lesson 4 | • Textbook 2B – Unit 9, Properties of shapes, Lessons 8–10 |

| National curriculum programmes of study Year 2 | | *Power Maths* | |
|---|---|---|---|
| **Domain** | **Pupils should be taught to:** | **Year 1** | **Year 2** |
| | • Identify 2D shapes on the surface of 3D shapes (for example, a circle on a cylinder and a triangle on a pyramid). | • Textbook 1A – Unit 5, 2D and 3D shapes, Lesson 4 | • Textbook 2B – Unit 9, Properties of shapes, Lesson 8 |
| | • Compare and sort common 2D and 3D shapes and everyday objects. | • Textbook 1A – Unit 5, 2D and 3D shapes, Lesson 3 | • Textbook 2B – Unit 9, Properties of shapes, Lessons 1, 6 and 11 |
| Geometry – position and direction | • Order and arrange combinations of mathematical objects in patterns and sequences. | • Textbook 1A – Unit 5, 2D and 3D shapes, Lesson 5 | • Textbook 2B – Unit 9, Properties of shapes, Lessons 7 and 12<br>• Textbook 2C – Unit 11, Position and direction, Lesson 4 |
| | • Use mathematical vocabulary to describe position, direction and movement, including movement in a straight line and distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anti-clockwise). | | • Textbook 2C – Unit 11, Position and direction, Lessons 1–4 |
| Statistics | • Interpret and construct simple pictograms, tally charts, block diagrams and simple tables. | | • Textbook 2B – Unit 7, Statistics, Lessons 1–6 |
| | • Ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity. | | • Textbook 2B – Unit 7, Statistics, Lessons 4–7 |
| | • Ask and answer questions about totalling and comparing categorical data. | | • Textbook 2B – Unit 7, Statistics, Lessons 4–7 |

# National curriculum to *Power Maths* matching chart KS2

## Year 3

| National curriculum programmes of study Year 3 | | *Power Maths* | | |
|---|---|---|---|---|
| **Domain** | **Pupils should be taught to:** | **Year 2** | **Year 3** | **Year 4** |
| 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. | • Textbook 2A – Unit 2 Addition and subtraction (1), Lesson 7 (10 more or less) | • Textbook 3A – Unit 1, Place value within 1,000, Lessons 7 and 11 | |
| | • Recognise the place value of each digit in a three-digit number (hundreds, tens, ones). | • Textbook 2A – Unit 1, Numbers to 100, Lessons 3–5 (tens, ones) | • Textbook 3A – Unit 1, Place value within 1,000, Lessons 1–7, 9 and 10 | • Textbook 4A – Unit 1, Place value – 4-digit numbers (1), Lesson 1 |
| | • Compare and order numbers up to 1,000. | • Textbook 2A – Unit 1, Numbers to 100, Lessons 6–8 (100) | • Textbook 3A – Unit 1, Place value within 1,000, Lessons 6, 8–10 | |
| | • Identify, represent and estimate numbers using different representations. | | • Textbook 3A – Unit 1, Place value within 1,000, Lessons 1–5 and 6 | • Textbook 4A – Unit 1, Place value – 4-digit numbers (1), Lesson 9 |
| | • Read and write numbers up to 1,000 in numerals and in words. | • Textbook 2A – Unit 1, Numbers to 100, Lessons 1 and 2 (100) | • Textbook 3A – Unit 1, Place value within 1,000, Lessons 1–6, 8 and 10 | • Textbook 4A – Unit 1, Place value – 4-digit numbers (1), Lesson 1 |
| | • Solve number problems and practical problems involving these ideas. | | • Textbook 3A – Unit 1, Place value within 1,000, Lessons 9 and 11 | |
| Number – addition and subtraction | • Add and subtract numbers mentally, including:<br>– a three-digit number and ones<br>– a three-digit number and tens<br>– a three-digit number and hundreds. | • Textbook 2C – Unit 12, Problem solving and efficient methods, Lessons 7 and 8 | • Textbook 3A – Unit 2, Addition and subtraction (1), Lessons 1–10<br>• Textbook 3A – Unit 3, Addition and subtraction (2), Lessons 1–5 | |

| National curriculum programmes of study Year 3 | | *Power Maths* | | |
|---|---|---|---|---|
| **Domain** | **Pupils should be taught to:** | **Year 2** | **Year 3** | **Year 4** |
| | • Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction. | • Textbook 2A – Unit 2 Addition and subtraction (1), Lessons 10 and 12<br>• Textbook 2A – Unit 3, Addition and subtraction (2), Lessons 1–3, 6, 8 and 9 | • Textbook 3A – Unit 2, Addition and subtraction (1), Lessons 8–10<br>• Textbook 3A – Unit 3, Addition and subtraction (2), Lessons 1–5 | |
| | • Estimate the answer to a calculation and use inverse operations to check answers. | • Textbook 2A – nit 2, Addition and subtraction (1), Lesson 2 | • Textbook 3A, Unit 3 – Addition and subtraction (2), Lessons 6 and 7 | |
| | • Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction. | • Textbook 2C – Unit 12, Problem solving and efficient methods, Lessons 6 and 10 | • Textbook 3A – Unit 2, Addition and subtraction (1), Lessons 7, 9 and 10<br>• Textbook 3A – Unit 3, Addition and subtraction (2), Lessons 1, 3, 5 and 8 | |
| Number – multiplication and division | • Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables. | | • Textbook 3A – Unit 4, Multiplication and division (1), Lessons 1–12, 14 and 15 | • Textbook 4A – Unit 5, Multiplication and division (1), Lesson 8 |
| | • 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 2B – Unit 6, Multiplication and division (2), Lesson 9<br>• Textbook 2C – Unit 12, Problem solving and efficient methods, Lesson 11 | • Textbook 3A – Unit 4, Multiplication and division (1), Lessons 1–12, 14 and 15<br>• Textbook 3B – Unit 5, Multiplication and division (2), Lessons 2–9, 12–14 | • Textbook 4A – Unit 5, Multiplication and division (1), Lessons 5–11 |
| | • 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. | | • Textbook 3A – Unit 4, Multiplication and division (1), Lessons 1–15<br>• Textbook 3B – Unit 5, Multiplication and division (2), Lessons 10–14 | • Textbook 4B – Unit 6, Multiplication and division (2), Lesson 9 |

| National curriculum programmes of study Year 3 | | *Power Maths* | | |
|---|---|---|---|---|
| **Domain** | **Pupils should be taught to:** | **Year 2** | **Year 3** | **Year 4** |
| Number – fractions | • Count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10. | | • Textbook 3B – Unit 9, Fractions (1), Lessons 3 and 4 | • Textbook 4B – Unit 8, Fractions (1), Lesson 2 |
| | • Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators. | | • Textbook 3B – Unit 9, Fractions (1), Lessons 8–10<br>• Textbook 3C – Unit 10, Fractions (2), Lesson 9 | |
| | • Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators. | • Textbook 2B – Unit 10, Fractions, Lessons 7 and 8 | • Textbook 3B – Unit 9, Fractions (1), Lessons 1, 2 and 5–7<br>• Textbook 3C – Unit 10, Fractions (2), Lesson 9 | |
| | • Recognise and show, using diagrams, equivalent fractions with small denominators. | • Textbook 2B – Unit 10, Fractions, Lesson 9 | • Textbook 3C – Unit 10, Fractions (2), Lessons 1–4 | • Textbook 4B – Unit 8, Fractions (1), Lessons 1 and 2 |
| | • Add and subtract fractions with the same denominator within one whole (for example, $\frac{5}{7}+\frac{1}{7}=\frac{6}{7}$). | | • Textbook 3C – Unit 10, Fractions (2), Lessons 6–8 | |
| | • Compare and order unit fractions, and fractions with the same denominators. | | • Textbook 3B – Unit 9, Fractions (1), Lessons 5–7<br>• Textbook 3C – Unit 10, Fractions (2), Lessons 2, 4 and 5 | |
| | • Solve problems that involve all of the above. | | • Textbook 3B – Unit 9, Fractions (1), Lesson 11<br>• Textbook 3C – Unit 10, Fractions (2), Lessons 3, 8 and 9 | |

| National curriculum programmes of study Year 3 | | *Power Maths* | | |
|---|---|---|---|---|
| **Domain** | **Pupils should be taught to:** | **Year 2** | **Year 3** | **Year 4** |
| Measurement | • Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml). | | • Textbook 3B – Unit 8, Length, Lessons 1–7, 10 and 11<br>• Textbook 3C – Unit 13, Mass, Lessons 1–6<br>• Textbook 3C – Unit 14, Capacity, Lessons 1–6 | |
| | • Measure the perimeter of simple 2D shapes. | | • Textbook 3B – Unit 8, Length, Lessons 8–11 | • Textbook 4A – Unit 4, Measure – perimeter, Lessons 2 and 3 |
| | • Add and subtract amounts of money to give change, using both £ and p in practical contexts. | • Textbook 2C – Unit 12, Problem solving and efficient methods, Lesson 1 | • Textbook 3B – Unit 6, Money, Lessons 1–5 | • Textbook 4C – Unit 12, Money, Lesson 6 |
| | • Tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks. | | • Textbook 3C – Unit 11, Time, Lessons 2–4 and 7 | |
| | • 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. | • Textbook 2C – Unit 13, Time, Lesson 3 (nearest 5 minutes) | • Textbook 3C – Unit 11, Time, Lessons 2, 5–11 | |
| | • Know the number of seconds in a minute and the number of days in each month, year and leap year. | | • Textbook 3C – Unit 11, Time, Lesson 1 | • Textbook 4A – Unit 5, Multiplication and division (1), Lesson 9<br>• Textbook 4C – Unit 13, Time, Lessons 3–5 |
| | • Compare durations of events (for example to calculate the time taken by particular events or tasks). | • Textbook 2C – Unit 13, Time, Lesson 6 | • Textbook 3C – Unit 11, Time, Lesson 9 | |

| National curriculum programmes of study Year 3 | | *Power Maths* | | |
|---|---|---|---|---|
| **Domain** | **Pupils should be taught to:** | **Year 2** | **Year 3** | **Year 4** |
| Geometry – properties of shapes | • Draw 2D shapes and make 3D shapes using modelling materials; recognise 3D shapes in different orientations and describe them. | | • Textbook 3C – Unit 12, Angles and properties of shapes, Lessons 4, 7–9 | |
| | • Recognise angles as a property of shape or a description of a turn. | • Textbook 2C – Unit 11, Position and direction, Lessons 2 and 3 | • Textbook 3C – Unit 12, Angles and properties of shapes, Lessons 1–3 | |
| | • 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. | • Textbook 2C – Unit 11, Position and direction, Lesson 2 | • Textbook 3C – Unit 12, Angles and properties of shapes, Lessons 1–3 | |
| | • Identify horizontal and vertical lines and pairs of perpendicular and parallel lines. | | • Textbook 3C – Unit 12, Angles and properties of shapes, Lessons 5 and 6 | |
| Statistics | • Interpret and present data using bar charts, pictograms and tables. | • Textbook 2B – Unit 7, Statistics, Lessons 2–5 (pictograms) | • Textbook 3B – Unit 7, Statistics, Lessons 1 and 3 | • Textbook 4C – Unit 14, Statistics, Lessons 1, 2 and 5 |
| | • 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. | • Textbook 2B – Unit 7, Statistics, Lessons 4 and 5 (pictograms) | • Textbook 3B – Unit 7, Statistics, Lessons 2, 4 and 5 | • Textbook 4C – Unit 14, Statistics, Lessons 2 and 5 |

## Year 4

| National curriculum programmes of study Year 4 | | *Power Maths* | | |
|---|---|---|---|---|
| **Domain** | **Pupils should be taught to:** | **Year 3** | **Year 4** | **Year 5** |
| Number – number and place value | • Count in multiples of 6, 7, 9, 25 and 1,000. | | • Textbook 4A – Unit 1, Place value – 4-digit numbers (1), Lesson 4 (1,000s)<br>• Textbook 4A – Unit 2, Place value – 4-digit numbers (2), Lesson 7 (25s)<br>• Textbook 4A – Unit 5, Multiplication and division (1), Lessons 5–8 | • Textbook 5A – Unit 2, Place value within 1,000,000, Lesson 7 (10s, 100s, 1,000s, 10,000s) |
| | • Find 1,000 more or less than a given number. | | • Textbook 4A – Unit 2, Place value – 4-digit numbers (2), Lesson 1 | |
| | • Count backwards through zero to include negative numbers. | | • Textbook 4A – Unit 2, Place value – 4-digit numbers (2), Lessons 8 and 9 (1,000 more or less) | • Textbook 5A – Unit 2, Place value within 1,000,000, Lesson 6 |
| | • Recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones). | • Textbook 3A – Unit 1, Place value within 1,000, Lessons 2–6 (three-digit number) | • Textbook 4A – Unit 1, Place value – 4-digit numbers (1), Lessons 1, 5–8 | |
| | • Order and compare numbers beyond 1,000. | | • Textbook 4A – Unit 1, Place value – 4-digit numbers (1), Lesson 8<br>• Textbook 4A – Unit 2, Place value – 4-digit numbers (2), Lessons 2–4 | • Textbook 5A – Unit 1, Place value within 100,000, Lesson 6<br>• Textbook 5A – Unit 2, Place value within 1,000,000, Lesson 4 |

| National curriculum programmes of study Year 4 | | *Power Maths* | | |
|---|---|---|---|---|
| **Domain** | **Pupils should be taught to:** | **Year 3** | **Year 4** | **Year 5** |
| | • Identify, represent and estimate numbers using different representations. | • Textbook 3A – Unit 1, Place value within 1,000, Lessons 5 and 6 | • Textbook 4A – Unit 1, Place value – 4-digit numbers (1), Lessons 4–8<br>• Textbook 4A – Unit 2, Place value – 4-digit numbers (2), Lessons 2–4 | • Textbook 5A – Unit 1, Place value within 100,000, Lesson 8 |
| | • Round any number to the nearest 10, 100 or 1,000. | | • Textbook 4A, Unit 1, Place value – 4-digit numbers (1), Lessons 2 and 3<br>• Textbook 4A – Unit 2, Place value – 4-digit numbers (2), Lessons 5 and 6<br>• Textbook 4A – Unit 3, Addition and subtraction, Lessons 9 and 10 | • Textbook 5A – Unit 1, Place value within 100,000, Lessons 2 and 7 |
| | • Solve number and practical problems that involve all of the above and with increasingly large positive numbers. | | • Textbook 4A – Unit 2, Place value – 4-digit numbers (2), Lesson 6 | |
| | • Read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and place value | | • Textbook 4A – Unit 1, Place value – 4-digit numbers (1), Lesson 9 | • Textbook 5A – Unit 1, Place value within 100,000, Lesson 8 |
| 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. | • Textbook 3A – Unit 2, Addition and subtraction (1), Lessons 8–10 | • Textbook 4A – Unit 3, Addition and subtraction, Lessons 1–8 | |
| | • Estimate and use inverse operations to check answers to a calculation. | • Textbook 3A – Unit 3, Addition and subtraction (2), Lesson 7 | • Textbook 4A - Unit 3, Addition and subtraction, Lessons 9–11 | • Textbook 5A – Unit 3, Addition and subtraction, Lesson 8 |

| National curriculum programmes of study Year 4 | | *Power Maths* | | |
|---|---|---|---|---|
| **Domain** | **Pupils should be taught to:** | **Year 3** | **Year 4** | **Year 5** |
| | • Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why. | | • Textbook 4A – Unit 3, Addition and subtraction, Lessons 1, 12–15 | • Textbook 5A – Unit 3, Addition and subtraction, Lessons 9 and 10 |
| Number – multiplication and division | • Recall multiplication and division facts for multiplication tables up to 12 × 12. | • Textbook 3A – Unit 4, Multiplication and division (1), Lessons 4, 7, 10–12 (3, 4 and 8)<br>• Textbook 3B – Unit 5, Multiplication and division (2), Lesson 4 | • Textbook 4A – Unit 5, Multiplication and division (1), Lessons 1, 2, 5–11 | • Textbook 5A – Unit 5, Multiplication and division (1), Lessons 1–6 |
| | • 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 4A – Unit 5, Multiplication and division (1), Lessons 1–4<br>• Textbook 4B – Unit 6, Multiplication and division (2), Lessons 11–14 | |
| | • Recognise and use factor pairs and commutativity in mental calculations. | | • Textbook 4B – Unit 6, Multiplication and division (2), Lesson 8 | • Textbook 5A – Unit 5, Multiplication and division (1), Lesson 2 |
| | • Multiply two-digit and three-digit numbers by a one-digit number using formal written layout. | • Textbook 3B – Unit 5, Multiplication and division (2), Lesson 7 | • Textbook 4B – Unit 6, Multiplication and division (2), Lessons 3–6, 11 and 13 | • Textbook 5B – Unit 7, Multiplication and division (2), Lesson 1 |
| | • 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. | | • Textbook 4B – Unit 6, Multiplication and division (2), Lessons 1, 2, 6, 7, 10 and 15 | |
| Number – fractions (including decimals) | • Recognise and show, using diagrams, families of common equivalent fractions. | • Textbook 3C – Unit 10, Fractions (2), Lessons 4 and 5 | • Textbook 4B – Unit 8, Fractions (1), Lessons 3–5 | • Textbook 5B – Unit 8, Fractions (1), Lesson 1 |

| National curriculum programmes of study Year 4 | | *Power Maths* | | |
|---|---|---|---|---|
| **Domain** | **Pupils should be taught to:** | **Year 3** | **Year 4** | **Year 5** |
| | • Count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten. | | • Textbook 4B – Unit 8, Fractions (1), Lessons 1 and 2<br>• Textbook 4B – Unit 10, Decimals (1), Lessons 6–8 | |
| | • 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. | | • Textbook 4B – Unit 8, Fractions (1), Lessons 6 and 7<br>• Textbook 4B – Unit 9, Fractions (2), Lessons 2–8 | |
| | • Add and subtract fractions with the same denominator. | • Textbook 3C – Unit 10, Fractions (2), Lessons 6 and 7 | • Textbook 4B – Unit 9, Fractions (2), Lessons 1–3<br>• Textbook 4C – Unit 11, Decimals (2), Lesson 1 | • Textbook 5B – Unit 9, Fractions (2), Lesson 1 |
| | • Recognise and write decimal equivalents of any number of tenths or hundredths. | | • Textbook 4B – Unit 10, Decimals (1), Lessons 1–3, 6 and 7<br>• Textbook 4C – Unit 11, Decimals (2), Lesson 1 | |
| | • Recognise and write decimal equivalents to $\frac{1}{4}$, $\frac{1}{2}$ and $\frac{3}{4}$. | | • Textbook 4C – Unit 11, Decimals (2), Lesson 6 | • Textbook 5B – Unit 11, Decimals and percentages, Lessons 3–6 |
| | • 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 4B – Unit 10, Decimals (1), Lessons 4, 5, 8–10<br>• Textbook 4C – Unit 11, Decimals (2), Lesson 1 | |
| | • Round decimals with one decimal place to the nearest whole number. | | • Textbook 4C – Unit 11, Decimals (2), Lesson 5 | • Textbook 5B – Unit 11, Decimals and percentages, Lesson 9 |

| National curriculum programmes of study Year 4 | | *Power Maths* | | |
|---|---|---|---|---|
| **Domain** | **Pupils should be taught to:** | **Year 3** | **Year 4** | **Year 5** |
| | • Compare numbers with the same number of decimal places up to two decimal places. | | • Textbook 4C – Unit 11, Decimals (2), Lessons 3 and 4 | • Textbook 5B – Unit 11, Decimals and percentages, Lessons 7 and 8 |
| | • Solve simple measure and money problems involving fractions and decimals to two decimal places. | • Textbook 3B – Unit 9, Fractions (1), Lessons 10 and 11<br>• Textbook 3C – Unit 10, Fractions (2), Lesson 9 | • Textbook 4B – Unit 10, Decimals (1), Lesson 3<br>• Textbook 4C – Unit 11, Decimals (2), Lesson 7<br>• Textbook 4C – Unit 12, Money, Lessons 1–4, 7–9 | |
| Measurement | • Convert between different units of measure (for example, kilometre to metre; hour to minute). | • Textbook 3B – Unit 8, Length, Lessons 3–5<br>• Textbook 3C – Unit 11, Time, Lesson 11 | • Textbook 4A – Unit 4, Measure – perimeter, Lesson 1<br>• Textbook 4C – Unit 13, Time, Lessons 1–5 | • Textbook 5C – Unit 16, Measure – converting units, Lessons 1–4 and 8 |
| | • Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres. | • Textbook 3B – Unit 8, Length, Lessons 8 and 9 | • Textbook 4A – Unit 4, Measure – perimeter, Lessons 2–5 | • Textbook 5A – Unit 6, Measure – area and perimeter, Lessons 1–3 |
| | • Find the area of rectilinear shapes by counting squares. | | • Textbook 4B – Unit 7, Measure – area, Lessons 1–4 | • Textbook 5A – Unit 6, Measure – area and perimeter, Lesson 4 |
| | • Estimate, compare and calculate different measures, including money in pounds and pence. | • Textbook 3B – Unit 6, Money, Lessons 3–5 | • Textbook 4B – Unit 7, Measure – area, Lesson 5<br>• Textbook 4C – Unit 12, Money, Lessons 1–9 | |
| | • Read, write and convert time between analogue and digital 12- and 24-hour clocks. | | • Textbook 4C – Unit 13, Time, Lessons 3 and 4 | |
| | • Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days. | • Textbook 3C – Unit 11, Time, Lessons 1, 2 and 11 | • Textbook 4A – Unit 5, Multiplication and division (1), Lesson 9<br>• Textbook 4C – Unit 13, Time, Lesson 5 | • Textbook 5C – Unit 16, Measure – converting units, Lesson 8 and 9 |

| National curriculum programmes of study Year 4 | | *Power Maths* | | |
|---|---|---|---|---|
| **Domain** | **Pupils should be taught to:** | **Year 3** | **Year 4** | **Year 5** |
| Geometry – properties of shapes | • Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes. | • Textbook 3C – Unit 12, Angles and properties of shapes, Lessons 7 and 8 | • Textbook 4C – Unit 15, Geometry – angles and 2D shapes, Lessons 3–6 | |
| | • Identify acute and obtuse angles and compare and order angles up to two right angles by size. | • Textbook 3C – Unit 12, Angles and properties of shapes, Lesson 3 | • Textbook 4C – Unit 15, Geometry – angles and 2D shapes, Lessons 1 and 2 | • Textbook 5C – Unit 13, Geometry – properties of shapes (1), Lessons 2 and 3 |
| | • Identify lines of symmetry in 2D shapes presented in different orientations. | • Textbook 3C – Unit 12, Angles and properties of shapes, Lesson 5 | • Textbook 4C – Unit 15, Geometry – angles and 2D shapes, Lessons 7 and 8 | |
| | • Complete a simple symmetric figure with respect to a specific line of symmetry. | | • Textbook 4C – Unit 15, Geometry – angles and 2D shapes, Lessons 9 and 10 | • Textbook 5C – Unit 15, Geometry – position and direction, Lesson 1 |
| Geometry – position and direction | • Describe positions on a 2D grid as coordinates in the first quadrant. | | • Textbook 4C – Unit 16, Geometry – position and direction, Lessons 1, 2 and 4 | • Textbook 5C – Unit 15, Geometry – position and direction, Lessons 2 and 4 |
| | • Describe movements between positions as translations of a given unit to the left/right and up/down. | | • Textbook 4C – Unit 16, Geometry – position and direction, Lessons 5 and 6 | • Textbook 5C – Unit 15, Geometry – position and direction, Lessons 3 and 4 |
| | • Plot specified points and draw sides to complete a given polygon. | | • Textbook 4C – Unit 16, Geometry – position and direction, Lesson 3 | |

| National curriculum programmes of study Year 4 | | *Power Maths* | | |
|---|---|---|---|---|
| **Domain** | **Pupils should be taught to:** | **Year 3** | **Year 4** | **Year 5** |
| Statistics | • Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs. | • Textbook 3B – Unit 7, Statistics, Lessons 3 and 4 | • Textbook 4C – Unit 14, Statistics, Lessons 1 and 3 | • Textbook 5A – Unit 4, Graphs and tables, Lessons 3–5 |
| | • Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs. | • Textbook 3B – Unit 7, Statistics, Lessons 1–5 | • Textbook 4C – Unit 14, Statistics, Lessons 2, 4 and 5 | • Textbook 5A – Unit 4, Graphs and tables, Lessons 1–5 |

## Year 5

| National curriculum programmes of study Year 5 | | *Power Maths* | | |
|---|---|---|---|---|
| **Domain** | **Pupils should be taught to:** | **Year 4** | **Year 5** | **Year 6** |
| Number – number and place value | • Read, write, order and compare numbers to at least 1,000,000 and determine the value of each digit. | | • Textbook 5A – Unit 1, Place value within 100,000, Lessons 1, 3 (10,000), 5 and 6 (100,000)<br>• Textbook 5A – Unit 2, Place value within 1,000,000, Lessons 1, 3 and 4 | • Textbook 6A – Unit 1, Place value within 10,000,000, Lessons 1–5 |
| | • Count forwards or backwards in steps of powers of 10 for any given number up to 1,000,000. | | • Textbook 5A – Unit 1, Place value within 100,000, Lesson 2 (1,000)<br>• Textbook 5A – Unit 2, Place value within 1,000,000, Lesson 7 | |
| | • Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero. | • Textbook 4A – Unit 2, Place value – 4-digit numbers (2), Lessons 8 and 9 | • Textbook 5A – Unit 2, Place value within 1,000,000, Lesson 6 | • Textbook 6A – Unit 1, Place value within 10,000,000, Lesson 7<br>• Textbook 6C – Unit 14, Problem solving, Lesson 2 |
| | • Round any number up to 1,000,000 to the nearest 10, 100, 1,000, 10,000 and 100,000. | • Textbook 4A – Unit 1, Place value – 4-digit numbers (1), Lessons 2 (10) and 3 (100)<br>• Textbook 4A – Unit 2, Place value – 4-digit numbers (2), Lesson 5 (1,000) | • Textbook 5A – Unit 1, Place value within 100,000, Lessons 2 (1,000) and 7 (100,000)<br>• Textbook 5A – Unit 2, Place value within 1,000,000, Lesson 5 | • Textbook 6A – Unit 1, Place value within 10,000,000, Lesson 6 |

| National curriculum programmes of study Year 5 | | *Power Maths* | | |
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| **Domain** | **Pupils should be taught to:** | **Year 4** | **Year 5** | **Year 6** |
| | • Solve number problems and practical problems that involve all of the above. | | • Textbook 5A – Unit 1, Place value within 100,000, Lesson 4<br>• Textbook 5A – Unit 2, Place value within 1,000,000, Lessons 2 and 8 | • Textbook 6C – Unit 14, Problem solving, Lesson 1 |
| | • Read Roman numerals to 1000 (M) and recognise years written in Roman numerals. | • Textbook 4A – Unit 1, Place value – 4-digit numbers (1), Lesson 9 (100) | • Textbook 5A – Unit 1, Place value within 100,000, Lesson 8 | |
| Number – addition and subtraction | • Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction). | | • Textbook 5A – Unit 3, Addition and subtraction, Lessons 1–4 | • Textbook 6A – Unit 2, Four operations (1), Lesson 1 |
| | • Add and subtract numbers mentally with increasingly large numbers. | | • Textbook 5A – Unit 3, Addition and subtraction, Lessons 6 and 7 | • Textbook 6A – Unit 3, Four operations (2), Lessons 7 and 8 |
| | • Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy. | • Textbook 4A – Unit 3, Addition and subtraction, Lesson 10 | • Textbook 5A – Unit 3, Addition and subtraction, Lesson 5 | • Textbook 6A – Unit 3, Four operations (2), Lesson 9 |
| | • Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why. | • Textbook 4A – Unit 3, Addition and subtraction, Lessons 1, 12–15 | • Textbook 5A – Unit 3, Addition and subtraction, Lessons 7, 9 and 10 | • Textbook 6A – Unit 2, Four operations (1), Lessons 1 and 2<br>• Textbook 6C – Unit 14, Problem solving, Lesson 3 |
| Number – multiplication and division | • Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers. | • Textbook 4B – Unit 6, Multiplication and division (2), Lesson 8 | • Textbook 5A – Unit 5, Multiplication and division (1), Lessons 1, 2 and 6 | • Textbook 6A – Unit 3, Four operations (2), Lessons 1 and 2 |

| National curriculum programmes of study Year 5 | | *Power Maths* | | |
|---|---|---|---|---|
| **Domain** | **Pupils should be taught to:** | **Year 4** | **Year 5** | **Year 6** |
| | • Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers. | | • Textbook 5A – Unit 5, Multiplication and division (1), Lesson 3 | • Textbook 6A – Unit 3, Four operations (2), Lesson 3 |
| | • Establish whether a number up to 100 is prime and recall prime numbers up to 19. | | • Textbook 5A – Unit 5, Multiplication and division (1), Lesson 3 | • Textbook 6A – Unit 3, Four operations (2), Lesson 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. | • Textbook 4B – Unit 6, Multiplication and division (2), Lessons 4 (2 digits) and 5 (3 digits) | • Textbook 5B – Unit 7, Multiplication and division (2), Lessons 1 and 4–6 | • Textbook 6A – Unit 2, Four operations (1), Lessons 3 and 4 |
| | • Multiply and divide numbers mentally drawing upon known facts. | | • Textbook 5B – Unit 7, Multiplication and division (2), Lessons 2 and 3 | • Textbook 6A – Unit 3, Four operations (2), Lesson 7 |
| | • 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. | | • Textbook 5B – Unit 7, Multiplication and division (2), Lessons 7–11 | |
| | • Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000. | • Textbook 4B – Unit 10, Decimals (1), Lessons 4, 5, 9 and 10 | • Textbook 5A – Unit 5, Multiplication and division (1), Lessons 8–10<br>• Textbook 5C – Unit 12, Decimals, Lessons 12–15 | |
| | • Recognise and use square numbers and cube numbers, and the notation for squared ($^2$) and cubed ($^3$). | | • Textbook 5A – Unit 5, Multiplication and division (1), Lessons 5 and 6 | • Textbook 6A – Unit 3, Four operations (2), Lesson 4 |
| | • Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes. | | • Textbook 5A – Unit 5, Multiplication and division (1), Lessons 1, 4–7 and 9 | |

| National curriculum programmes of study Year 5 | | *Power Maths* | | |
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| **Domain** | **Pupils should be taught to:** | **Year 4** | **Year 5** | **Year 6** |
| | • Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign. | • Textbook 4B – Unit 6, Multiplication and division (2), Lessons 1 and 2 | | • Textbook 6A – Unit 14, Problem solving, Lessons 4 and 5 |
| | • Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates. | | | • Textbook 6B – Unit 10, Measure – imperial and metric measures, Lessons 9 and 10 |
| Number – fractions (including decimals and percentages) | • Compare and order fractions whose denominators are all multiples of the same number. | | • Textbook 5B – Unit 8, Fractions (1), Lessons 4–6 | • Textbook 6A – Unit 4, Fractions (1), Lessons 2–4 |
| | • Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths. | • Textbook 4B – Unit 8, Fractions (1), Lesson 1 | • Textbook 5B – Unit 8, Fractions (1), Lesson 1<br>• Textbook 5B – Unit 11, Decimals and percentages, Lesson 12 | |
| | • 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, $\frac{2}{5}+\frac{4}{5}=\frac{6}{5}=1\frac{1}{5}$). | | • Textbook 5B – Unit 8, Fractions (1), Lessons 2, 3 and 6–8<br>• Textbook 5B – Unit 9, Fractions (2), Lessons 4–10<br>• Textbook 5B – Unit 10, Fractions (3), Lessons 1–4 and 6 | |
| | • Add and subtract fractions with the same denominator and denominators that are multiples of the same number. | • Textbook 4B – Unit 9, Fractions (2), Lessons 1–5 | • Textbook 5B – Unit 9, Fractions (2), Lessons 1–12 | • Textbook 6A – Unit 4, Fractions (1), Lesson 6 |

| National curriculum programmes of study Year 5 | | *Power Maths* | | |
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| **Domain** | **Pupils should be taught to:** | **Year 4** | **Year 5** | **Year 6** |
| | • Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams. | | • Textbook 5B – Unit 10, Fractions (3), Lessons 1–7 | • Textbook 6A – Unit 5, Fractions (2), Lesson 1 |
| | • Read and write decimal numbers as fractions (for example, $0{\cdot}71 = \frac{71}{100}$). | • Textbook 4C – Unit 11, Decimals (2), Lesson 6 | • Textbook 5B – Unit 11, Decimals and percentages, Lessons 3 and 4 | • Textbook 6B – Unit 7, Decimals, Lessons 3 and 4 |
| | • Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents. | | • Textbook 5B – Unit 11, Decimals and percentages, Lessons 5 and 6<br>• Textbook 5C – Unit 12, Decimals, Lessons 12–15 | |
| | • Round decimals with two decimal places to the nearest whole number and to one decimal place. | • Textbook 4C – Unit 11, Decimals (2), Lesson 5 (decimals with one decimal place) | • Textbook 5B – Unit 11, Decimals and percentages, Lesson 9 | |
| | • Read, write, order and compare numbers with up to three decimal places. | • Textbook 4C – Unit 11, Decimals (2), Lesson 3 and 4 (two decimal places)<br>• Textbook 4C – Unit 12, Money, Lesson 3 (two decimal places) | • Textbook 5B – Unit 11, Decimals and percentages, Lessons 1, 2, 7 and 8<br>• Textbook 5C – Unit 12, Decimals, Lesson 9 | |
| | • Solve problems involving number up to three decimal places. | • Textbook 4C – Unit 12, Money, Lessons 6–9 (two decimal places) | • Textbook 5C – Unit 12, Decimals, Lessons 1–8, 10–15 | • Textbook 6C – Unit 14, Problem solving, Lesson 7 |
| | • 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. | | • Textbook 5B – Unit 11, Decimals and percentages, Lessons 10–12 | • Textbook 6B – Unit 8, Percentages, Lesson 1 |

| National curriculum programmes of study Year 5 | | *Power Maths* | | |
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| **Domain** | **Pupils should be taught to:** | **Year 4** | **Year 5** | **Year 6** |
| | • 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. | | • Textbook 5B – Unit 11, Decimals and percentages, Lesson 12 | • Textbook 6C – Unit 14, Problem solving, Lessons 6 and 7 |
| 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). | • Textbook 4A – Unit 4, Measure – perimeter, Lesson 1 | • Textbook 5C – Unit 16, Measure – converting units, Lessons 1–4 | • Textbook 6B – Unit 10, Measure – imperial and metric measures, Lessons 1–3 |
| | • Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints. | | • Textbook 5C – Unit 16, Measure – converting units, Lessons 5–7 | • Textbook 6B – Unit 10, Measure – imperial and metric measures, Lessons 4 and 5 |
| | • Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres. | • Textbook 4A – Unit 4, Measure – perimeter, Lessons 4 and 5 | • Textbook 5A – Unit 6, Measure – area and perimeter, Lessons 1–3 | |
| | • 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. | | • Textbook 5A – Unit 6, Measure – area and perimeter, Lessons 4–7 | |
| | • Estimate volume (for example, using 1 $cm^3$ blocks to build cuboids (including cubes)) and capacity (for example, using water). | | • Textbook 5C – Unit 17, Measure – volume and capacity, Lessons 1–4 | • Textbook 6B – Unit 11, Measure – perimeter, area and volume, Lessons 10 and 11 |
| | • Solve problems involving converting between units of time. | • Textbook 4A – Unit 5, Multiplication and division (1), Lesson 9<br>• Textbook 4C – Unit 13, Time, Lesson 5 | • Textbook 5C – Unit 16, Measure – converting units, Lesson 8 and 9 | • Textbook 6C – Unit 14, Problem solving, Lessons 10 and 11 |

| National curriculum programmes of study Year 5 | | *Power Maths* | | |
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| **Domain** | **Pupils should be taught to:** | **Year 4** | **Year 5** | **Year 6** |
| | • Use all four operations to solve problems involving measure (for example, length, mass, volume, money) using decimal notation, including scaling. | | • Textbook 5C – Unit 16, Measure – converting units, Lessons 4 and 10 | • Textbook 6C – Unit 14, Problem solving, Lessons 4 and 5 |
| Geometry – properties of shapes | • Identify 3D shapes, including cubes and other cuboids, from 2D representations. | | • Textbook 5C – Unit 14, Geometry – properties of shapes (2), Lesson 5 | • Textbook 6C – Unit 13, Geometry – properties of shapes, Lessons 11 and 12 |
| | • Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles. | • Textbook 4C – Unit 15, Geometry – angles and 2D shapes, Lessons 1 and 2 | • Textbook 5C – Unit 13, Geometry – properties of shapes (1), Lessons 2 and 3 | • Textbook 6C – Unit 13, Geometry – properties of shapes, Lesson 1 |
| | • Draw given angles, and measure them in degrees (°). | | • Textbook 5C – Unit 13, Geometry – properties of shapes (1), Lessons 2–4<br>• Textbook 5C – Unit 14, Geometry – properties of shapes (2), Lesson 3 | • Textbook 6C – Unit 13, Geometry – properties of shapes, Lessons 1 and 2 |
| | • Identify<br>– angles at a point and one whole turn (total 360°)<br>– angles at a point on a straight line and $\frac{1}{2}$ a turn (total 180°)<br>– other multiples of 90°. | | • Textbook 5C – Unit 13, Geometry – properties of shapes (1), Lessons 1, 3, 5 and 6 | • Textbook 6C – Unit 13, Geometry – properties of shapes, Lesson 8<br>• Textbook 6C – Unit 14, Problem solving, Lessons 13 and 14 |
| | • Use the properties of rectangles to deduce related facts and find missing lengths and angles. | | • Textbook 5C – Unit 13, Geometry – properties of shapes (1), Lesson 7<br>• Textbook 5C – Unit 14, Geometry – properties of shapes (2), Lessons 1 and 2 | • Textbook 6C – Unit 13, Geometry – properties of shapes, Lessons 6 and 7 |

| National curriculum programmes of study Year 5 | | *Power Maths* | | |
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| **Domain** | **Pupils should be taught to:** | **Year 4** | **Year 5** | **Year 6** |
| | • Distinguish between regular and irregular polygons based on reasoning about equal sides and angles. | • Textbook 4C – Unit 15, Geometry – angles and 2D shapes, Lesson 3 | • Textbook 5C – Unit 14, Geometry – properties of shapes (2), Lesson 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. | • Textbook 4C – Unit 16, Geometry – position and direction, Lessons 5 and 6 | • Textbook 5C – Unit 15, Geometry – position and direction, Lessons 1–4 | • Textbook 6A – Unit 6, Geometry – position and direction, Lessons 3 and 4 |
| Statistics | • Solve comparison, sum and difference problems using information presented in a line graph. | • Textbook 4C – Unit 14, Statistics, Lessons 3 and 4 | • Textbook 5A – Unit 4, Graphs and tables, Lessons 3–5 | • Textbook 6C – Unit 15, Statistics, Lessons 9 and 10 |
| | • Complete, read and interpret information in tables, including timetables. | • Textbook 4C – Unit 14, Statistics, Lesson 1 (tables) | • Textbook 5A – Unit 4, Graphs and tables, Lessons 1–2<br>• Textbook 5C – Unit 16, Measure – converting units, Lesson 9 | |

## Year 6

| National curriculum programmes of study Year 6 | | *Power Maths* | | |
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| **Domain** | **Pupils should be taught to:** | **Year 4** | **Year 5** | **Year 6** |
| Number – number and place value | • Read, write, order and compare numbers up to 10,000,000 and determine the value of each digit. | • Textbook 4A – Unit 1, Place value – 4-digit numbers (1), Lessons 1 (1,000) and 5–8 (10,000) | • Textbook 5A – Unit 1, Place value within 10,000, Lessons 1, 3, 4 (10,000) and 5 (100,000)<br>• Textbook 5A – Unit 2, Place value within 1,000,000, Lessons 1–4 (1,000,000) | • Textbook 6A – Unit 1, Place value within 10,000,000, Lessons 1–5 |
| | • Round any whole number to a required degree of accuracy. | • Textbook 4A – Unit 1, Place value – 4-digit numbers (1), Lessons 2 (10) and 3 (100)<br>• Textbook 4A – Unit 2, Place value – 4-digit numbers (2), Lesson 5 (1,000) | • Textbook 5A – Unit 1, Place value within 100,000, Lessons 2 and 7<br>• Textbook 5A – Unit 2, Place value within 1,000,000, Lesson 5 | • Textbook 6A – Unit 1, Place value within 10,000,000, Lesson 6 |
| | • Use negative numbers in context, and calculate intervals across zero. | | • Textbook 5A – Unit 2, Place value within 1,000,000, Lesson 6 | • Textbook 6A – Unit 1, Place value within 10,000,000, Lesson 7 |
| | • Solve number and practical problems that involve all of the above. | | | • Textbook 6A – Unit 1, Place value within 10,000,000, Lessons 1–5<br>• Textbook 6C – Unit 14, Problem solving, Lessons 1 and 2 |
| 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. | | • Textbook 5B – Unit 7, Multiplication and division (2), Lesson 6 | • Textbook 6A – Unit 2, Four operations (1), Lessons 3 and 4 |

| National curriculum programmes of study Year 6 | | *Power Maths* | | |
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| **Domain** | **Pupils should be taught to:** | **Year 4** | **Year 5** | **Year 6** |
| | • 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. | | | • Textbook 6A – Unit 2, Four operations (1), Lessons 7–10 |
| | • 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. | | | • Textbook 6A – Unit 2, Four operations (1), Lessons 5 and 6 |
| | • Perform mental calculations, including with mixed operations and large numbers. | | • Textbook 5A – Unit 3, Addition and subtraction, Lessons 6 and 7 | • Textbook 6A – Unit 3, Four operations (2), Lessons 7 and 8 |
| | • Identify common factors, common multiples and prime numbers. | | • Textbook 5A – Unit 5, Multiplication and division (1), Lessons 1–4 | • Textbook 6A – Unit 3, Four operations (2), Lessons 1–3 |
| | • Use their knowledge of the order of operations to carry out calculations involving the four operations. | | | • Textbook 6A – Unit 3, Four operations (2), Lessons 5, 6 and 9<br>• Textbook 6A – Unit 5, Fractions (2), Lesson 7<br>• Textbook 6C – Unit 14, Problem solving, Lesson 4 |
| | • Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why. | | • Textbook 5A – Unit 3, Addition and subtraction, Lessons 7, 9 and 10 | • Textbook 6C – Unit 14, Problem solving, Lesson 3 |

| National curriculum programmes of study Year 6 | | *Power Maths* | | |
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| **Domain** | **Pupils should be taught to:** | **Year 4** | **Year 5** | **Year 6** |
| | • Solve problems involving addition, subtraction, multiplication and division. | | | • Textbook 6A – Unit 3, Four operations (2), Lesson 9<br>• Textbook 6C – Unit 14, Problem solving, Lessons 3–5 |
| | • Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy. | | | • Textbook 6C – Unit 14, Problem solving, Lessons 3 and 4<br>• Textbook 6C – Unit 15, Statistics, Lessons 8 and 9 |
| Number – fractions (including decimals and percentages) | • Use common factors to simplify fractions; use common multiples to express fractions in the same denomination. | • Textbook 4B – Unit 8, Fractions (1), Lesson 5 | • Textbook 5B – Unit 9, Fractions (2), Lessons 2–11 | • Textbook 6A – Unit 4, Fractions (1), Lessons 1, 2, 4 and 5 |
| | • Compare and order fractions, including fractions > 1. | | • Textbook 5B – Unit 8, Fractions (1), Lesson 6 | • Textbook 6A – Unit 4, Fractions (1), Lessons 2–5<br>• Textbook 6B – Unit 8, Percentages, Lesson 8 |
| | • Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions. | | • Textbook 5B – Unit 9, Fractions (2), Lessons 4–12 | • Textbook 6A – Unit 4, Fractions (1), Lessons 6–11<br>• Textbook 6A – Unit 5, Fractions (2), Lesson 7 |
| | • Multiply simple pairs of proper fractions, writing the answer in its simplest form (for example, $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$). | | | • Textbook 6A – Unit 5, Fractions (2), Lessons 2, 3 and 7<br>• Textbook 6B – Unit 8, Percentages, Lesson 3 |
| | • Divide proper fractions by whole numbers (for example, $\frac{1}{3} \div 2 = \frac{1}{6}$). | | | • Textbook 6A – Unit 5, Fractions (2), Lessons 4–6 |

| National curriculum programmes of study Year 6 | | *Power Maths* | | |
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| **Domain** | **Pupils should be taught to:** | **Year 4** | **Year 5** | **Year 6** |
| | • Associate a fraction with division and calculate decimal fraction equivalents (for example, 0·375) for a simple fraction (for example, $\frac{3}{8}$). | | • Textbook 5B – Unit 8, Fractions (1), Lesson 8 | • Textbook 6B – Unit 7, Decimals, Lessons 3–5 and 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. | • Textbook 4B – Unit 10, Decimals (1), Lessons 4, 5, 9 and 10 | • Textbook 5B – Unit 11, Decimals and percentages, Lessons 5 and 6<br>• Textbook 5C – Unit 12, Decimals, Lessons 12–15 | • Textbook 6B – Unit 7, Decimals, Lessons 1–3 |
| | • Multiply one-digit numbers with up to two decimal places by whole numbers. | | | • Textbook 6B – Unit 7, Decimals, Lessons 6 and 7<br>• Textbook 6B – Unit 8, Percentages, Lesson 4 |
| | • Use written division methods in cases where the answer has up to two decimal places. | | | • Textbook 6A – Unit 5, Fractions (2), Lessons 8 and 9<br>• Textbook 6B – Unit 7, Decimals, Lessons 5 and 9 |
| | • Solve problems which require answers to be rounded to specified degrees of accuracy. | | | • Textbook 6B – Unit 7, Decimals, Lessons 8 and 9<br>• Textbook 6B – Unit 8, Percentages, Lesson 9 |
| | • Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts. | | • Textbook 5B – Unit 11, Decimals and percentages, Lessons 11 and 12 | • Textbook 6B – Unit 8, Percentages, Lessons 1–9<br>• Textbook 6C – Unit 14, Problem solving, Lessons 6–8 |

| National curriculum programmes of study Year 6 | | *Power Maths* | | |
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| **Domain** | **Pupils should be taught to:** | **Year 4** | **Year 5** | **Year 6** |
| Ratio and proportion | • Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts. | | | • Textbook 6B – Unit 12, Ratio and proportion, Lessons 1–4, 8 and 9<br>• Textbook 6A – Unit 14, Problem solving, Lesson 9 |
| | • Solve problems involving the calculation of percentages (for example, of measures, and such as 15% of 360) and the use of percentages for comparison. | | | • Textbook 6B – Unit 8, Percentages, Lessons 1–5.<br>• Textbook 6C – Unit 14, Problem solving, Lesson 8.<br>• Textbook 6C – Unit 15, Statistics, Lesson 8 |
| | • Solve problems involving similar shapes where the scale factor is known or can be found. | | | • Textbook 6B – Unit 12, Ratio and proportion, Lessons 5–7 |
| | • Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples. | | | • Textbook 6B – Unit 12, Ratio and proportion, Lessons 1–4, 8 and 9<br>• Textbook 6C – Unit 14, Problem solving, Lesson 9 |
| Algebra | • Use simple formulae. | | • Textbook 5A – Unit 6, Measure – area and perimeter, Lessons 5 and 6 | • Textbook 6B – Unit 9, Algebra, Lessons 1, 2 and 6 |
| | • Generate and describe linear number sequences. | | | • Textbook 6B – Unit 9, Algebra, Lessons 1–5 |
| | • Express missing number problems algebraically. | | | • Textbook 6B – Unit 9, Algebra, Lessons 4, 5 and 7–9 |
| | • Find pairs of numbers that satisfy an equation with two unknowns. | | | • Textbook 6B – Unit 9, Algebra, Lessons 10 and 11 |

| National curriculum programmes of study Year 6 | | *Power Maths* | | |
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| **Domain** | **Pupils should be taught to:** | **Year 4** | **Year 5** | **Year 6** |
| | • Enumerate possibilities of combinations of two variables. | | | • Textbook 6B – Unit 9, Algebra, Lessons 6, 10 and 11 |
| Measurement | • Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate. | • Textbook 4C – Unit 12, Money, Lessons 6–9 | • Textbook 5C – Unit 16, Measure – converting units, Lesson 10 | • Textbook 6B – Unit 10, Measure – imperial and metric measures, Lesson 3<br>• Textbook 6C – Unit 14, Problem solving, Lesson 10 |
| | • 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 5C – Unit 16, Measure – converting units, Lessons 1–4 | • Textbook 6B – Unit 10, Measure – imperial and metric measures, Lessons 1, 2 and 5<br>• Textbook 6C – Unit 14, Problem solving, Lessons 10 and 11 |
| | • Convert between miles and kilometres. | | | • Textbook 6B – Unit 10, Measure – imperial and metric measures, Lesson 4 |
| | • Recognise that shapes with the same areas can have different perimeters and vice versa. | | | • Textbook 6B – Unit 11, Measure – perimeter, area and volume, Lessons 1–3 and 9 |
| | • Recognise when it is possible to use formulae for area and volume of shapes. | | • Textbook 5A – Unit 6, Measure – area and perimeter, Lessons 5 and 6 (area) | • Textbook 6B – Unit 11, Measure – perimeter, area and volume, Lessons 4, 10 and 11 |
| | • Calculate the area of parallelograms and triangles. | | | • Textbook 6B – Unit 11, Measure – perimeter, area and volume, Lessons 4–8 |

| National curriculum programmes of study Year 6 | | *Power Maths* | | |
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| **Domain** | **Pupils should be taught to:** | **Year 4** | **Year 5** | **Year 6** |
| | • 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 $km^3$). | | | • Textbook 6B – Unit 11, Measure – perimeter, area and volume, Lessons 10 and 11 |
| Geometry – properties of shapes | • Draw 2D shapes using given dimensions and angles. | | • Textbook 5C – Unit 14, Geometry – properties of shapes (2), Lessons 2–4 | • Textbook 6C – Unit 13, Geometry – properties of shapes, Lessons 1 and 2 |
| | • Recognise, describe and build simple 3D shapes, including making nets. | | | • Textbook 6C – Unit 13, Geometry – properties of shapes, Lessons 11 and 12 |
| | • Compare and classify geometric shapes based on their properties and sizes, and find unknown angles in any triangles, quadrilaterals and regular polygons. | | • Textbook 5C – Unit 14, Geometry – properties of shapes (2), Lesson 4 | • Textbook 6C – Unit 13, Geometry – properties of shapes, Lessons 3–7<br>• Textbook 6C – Unit 14, Problem solving, Lessons 13 and 14 |
| | • Illustrate and name parts of circles, including radius, diameter and circumference, and know that the diameter is twice the radius. | | | • Textbook 6C – Unit 13, Geometry – properties of shapes, Lessons 9 and 10 |
| | • Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles. | | • Textbook 5C – Unit 13, Geometry – properties of shapes (1), Lesson 5–7 | • Textbook 6C – Unit 13, Geometry – properties of shapes, Lesson 8<br>• Textbook 6C – Unit 14, Problem solving, Lessons 13 and 14 |

| National curriculum programmes of study Year 6 | | *Power Maths* | | |
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| **Domain** | **Pupils should be taught to:** | **Year 4** | **Year 5** | **Year 6** |
| Geometry – position and direction | • Describe positions on the full coordinate grid (all four quadrants). | | • Textbook 5C – Unit 15, Geometry – position and direction, Lesson 2 (first quadrant) | • Textbook 6A – Unit 6, Geometry – position and direction, Lessons 1 and 2<br>• Textbook 6C – Unit 14, Problem solving, Lesson 12 |
| | • Draw and translate simple shapes on the coordinate plane, and reflect them in the axes. | • Textbook 4C – Unit 16, Geometry – position and direction, Lessons 5 and 6 | • Textbook 5C – Unit 15, Geometry – position and direction, Lessons 2–4 | • Textbook 6A – Unit 6, Geometry – position and direction, Lessons 3 and 4 |
| Statistics | • Interpret and construct pie charts and line graphs and use these to solve problems. | | • Textbook 5A – Unit 4, Graphs and tables, Lessons 3–5 (line graphs) | • Textbook 6C – Unit 15, Statistics, Lessons 4–10 |
| | • Calculate and interpret the mean as an average. | | | • Textbook 6C – Unit 15, Statistics, Lessons 1–3 |