	Unit	Unit name
Autumn 1	1	**Decimal fractions**
	2	**Money**
Autumn 2	3	**Negative numbers**
	4	**Number up to 1,000,000**
	5	**Addition and Subtraction**
	6	**Short multiplication and short division**
Spring 1	7	**Area and scaling**
	8	**Coordinates**
Spring 2	9	**Calculating with decimal fractions**
	10	**Factors, multiples and primes**
Summer 1	11	**Fractions**
	12	**Converting units**
Summer 2	13	**Angles**
	14	**Statistics**

Legend

- Number and place value
- Number facts
- Multiplication and division
- Fractions
- Geometry
- Other

Year 5
Curriculum map

NCETM
NATIONAL CENTRE for EXCELLENCE in the TEACHING of MATHEMATICS

Year 5

Measurement and Statistics are integrated as applications of number criteria, and elements of measurementthat relate to shape are included in the Geometry strand.

Pre-assessment ready-to-progress questions used at the start of a unit to check that pupils have the pre-requisite knowledge and skills.

SEND PRIORITISATION

1

Decimal fractions

- **5NPV–1 Know that 10 tenths are equivalent to 1 one, and that 1 is 10 times the size of 0.1.Know that 100 hundredths are equivalent to 1 one, and that 1 is 100 times the size of 0.01. Know that 10 hundredths are equivalent to 1 tenth, and that 0.1 is 10 times the size of 0.01.**

5B Unit 9 Decimals and percentages
- **Lesson 4 Equivalent fractions and decimals – hundredths**
- **Lesson 6 Thousandths as fractions**
- **Lesson 7 Thousandths as decimals**

5C Unit 14 Decimals
- **Lesson 13 Multiply by 10, 100 and 1,000**
- **Lesson 15 Divide by 10, 100 and 1,000**

- **5NPV–2 Recognise the place value of each digit in numbers with up to 2 decimal places, and compose and decompose numbers with up to 2 decimal places using standard and non-standard partitioning.**

4C Unit 11 Decimals (2)
- **Lesson 2 Partition decimals**
- **Lesson 3 Flexibly partition decimals**

5B Unit 9 Decimals and percentages
- **Lesson 1 Write decimals up to 2 decimal places – less than 1**
- **Lesson 2 Write decimals up to 2 decimal places – greater than 1**

- **5NPV–3 Reason about the location of any number with up to 2 decimals places in the linear number system, including identifying the previous and next multiple of 1 and 0.1 and round- ing to the nearest of each.**

5B Unit 9 Decimals and percentages
- **Lesson 9 Compare and order decimals – same number of decimal places**
- **Lesson 10 Compare and order any decimals with up to 3 decimal places**
- **Lesson 11 Round to the nearest whole number**
- **Lesson 12 Round to one decimal place**

- **5NPV–4 Divide 1 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked inunits of 1 with 2, 4, 5 and 10 equal parts.**

5A Unit 5 Fractions (1)
- **Lesson 6 Compare fractions less than 1**
- **Lesson 7 Order fractions less than 1**
- **Lesson 8 Compare and order fractions greater than 1**

- **5NF–2 Apply place-value knowledge to known additive and multiplicative number facts(scaling facts by 1 tenth or 1 hundredth).**

- **5C Unit 14 Decimals**
- **Lesson 1 Add and subtract decimals within 1 (1)**
- **Lesson 2 Add and subtract decimals within 1 (2)**
- **Lesson 3 Complements to 1**
- **Lesson 4 Add and subtract decimals across 1**
- 1.23 Composition and calculation: tenths
- 1.24 Composition and calculation: hundredths and thousandths

5C Unit 14 Decimals
- **Lesson 7 Add decimals with a different number of decimal places**
- **Lesson 8 Subtract decimals with a different number o decimal places**
- **Lesson 10 Problem solving with decimals (2)**
- **Lesson 11 Decimal sequences**

2

Money
- 1.25 Addition and subtraction: money

4B Unit 12 Money
Lesson 2 Convert between pounds and pence
Lesson 3 Compare amounts of money
Lesson 5 Calculate with money

3

Negative numbers
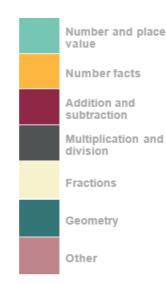- 1.27 Negative numbers: counting, comparing and calculating

5C Unit 15 Negative numbers
Lesson 1 Understand negative numbers
Lesson 2 Count through zero
Lesson 3 Compare and order negative numbers
Lesson 4 Find the difference

Number and place value

Number facts

Addition and subtraction

Multiplication and division

Fractions

Geometry

Other

Dark grey references are ready-to-progress criteria from the DfE Guidance 2020

Light grey references are from the NCETM Primary Mastery Professional Development materials

Blue references key Power Maths lessons

4	**Number up to 1,000,000**
	6NPV–1 Understand the relationship between powers of 10 from 1 hundredth to 10 million,and use this to make a given number 10, 100, 1,000, 1 tenth, 1 hundredth or 1 thousandth times the size (multiply and divide by 10, 100 and 1,000).
	5A Unit 1 Place value within 1,000,000 (1)
	    • Lesson 4 Numbers to 1,000,000
	        • Lesson 5 Read and write 5 and 6 digit numbers
	        • Lesson 6 Powers of 10
	        • Lesson 7 10/100/1,000/100,000 more or less
	5A Unit 2 Place value within 1,000,000 (2)
	        • Lesson 1 Number line to 1,000,000
	        • Lesson 3 Compare and order numbers to 1,000,000
	        • Lesson 4 Round numbers to the nearest 100,000
	        • Lesson 6 Round numbers to the nearest 10, 100 and 1000

5	**Addition and subtraction**
	5A Unit 3 Addition and subtraction
	        • Lesson 1 Mental strategies (addition)
	        • Lesson 2 Mental strategies (subtraction)
	        • Lesson 3 Add whole numbers with more than 4 digits (1)
	        • Lesson 4 Add whole numbers with more than 4 digits (2)
	        • Lesson 5 Subtract whole numbers with more than 4 digits (1)
	        • Lesson 6 Subtract whole numbers with more than 4 digits (2)
	        • Lesson 7 Round to check answers
	        • Lesson 8 Inverse operations (addition and subtraction)
	        • Lesson 11 Solve missing number problems

6	**Short multiplication and short division** • 5MD–3 Multiply any whole number with up to 4 digits by any one-digit number using a formal written method. 5B Unit 7 Multiplication and division (2) • Lesson 1 Multiply a number up to 4-digits by a 1-digit number • Lesson 3 Multiply 2-digit numbers • Lesson 5 Multiply a 4-digit number by a 2-digit number
	• 5MD–4 Divide a number with up to 4 digits by a one-digit number using a formal writtenmethod, and interpret remainders appropriately for the context. 5B Unit 7 Multiplication and division (2) • Lesson 6 Divide a number up to 4 digits by a 1-digit number (1) • Lesson 7 Divide a number up to 4 digits by a 1-digit number (2) • Lesson 8 Divide with remainders • 2.14 Multiplication: partitioning leading to short multiplication • 2.15 Division: partitioning leading to short division
7	**Area and scaling** • 5G–2 Compare areas and calculate the area of rectangles (including squares) using standard units. 5B Unit 10 Measure – perimeter and area • Lesson 5 Area of rectangles (1) • Lesson 6 Area of rectangles (2) • Lesson 7 Area of compound shapes • Lesson 8 Estimate area • 2.16 Multiplicative contexts: area and perimeter 1 5B Unit 10 Measure – perimeter and area Lesson 1 Perimeter of rectangles Lesson 3 Perimeter of rectilinear shapes (2) Lesson 4 Perimeter of polygons • 2.17 Structures: using measures and comparison to understand scaling
	Coordinates 4G–1 Draw polygons, specified by coordinates in the first quadrant, and translate within thefirst quadrant. 5C Unit 13 Geometry-position and direction • Lesson 1 Read and plot coordinates • Lesson 3 Translate shapes • Lesson 4 Translate points • Lesson 5 Reflection • Lesson 6 Reflection in horizontal and vertical lines
8	**Calculating with decimal fractions** • 5MD–1 Multiply and divide numbers by 10 and 100; understand this as equivalent to making a number 10 or 100 times the size, or 1 tenth or 1 hundredth times the size. 5A Unit 4 Multiplication and division (1) • Lesson 8 Multiply by 10, 100 and 1,000 • Lesson 9 Divide by 10, 100 and 1,000 • 2.19 Calculation: ×/÷ decimal fractions by whole numbers • 2.29 Decimal place-value knowledge, multiplication and division 5A Unit 6 Fractions (2)

9	• **Lesson 3 Add fractions with a total greater than 1** • **Lesson 5 Add two mixed numbers** • **Lesson 7 Subtract from a mixed number** • **Lesson 8 Subtract from a mixed number-breaking the whole** • **Lesson 9 Subtract two mixed numbers** • **Lesson 11 Solve multi-step fraction problems**

Factors, multiples and primes

• **5MD–2 Find factors and multiples of positive whole numbers, including common factors andcommon multiples, and express a given number as a product of 2 or 3 factors.**

5A Unit 4 Multiplication and division (1)
• **Lesson 1 Multiples**
• **Lesson 2 Common multiples**
• **Lesson 3 Factors**
• **Lesson 4 Common factors**
• 2.20 Multiplication with three factors and volume

5C Unit 17 Measure-volume
• **Lesson 2 Compare volumes**
• **Lesson 3 Estimate volumes**
• 2.21 Factors, multiples, prime numbers and composite numbers

5A Unit 4 Multiplication and Division (1)
Lesson 5 Prime numbers
Lesson 6 Square numbers
Lesson 7 Cube numbers

Fractions

4F–3 Add and subtract improper and mixed fractions with the same denominator, including bridging whole numbers.

5A Unit 5 Fractions (1)
    • **Lesson 4 Improper fractions to mixed numbers**
    • **Lesson 5 Mixed numbers to improper fractions**

10

• **5NPV–5 Convert between units of measure, including using common decimals and fractions.**

5C Unit 16 Measure – converting units
• **Lesson 1 Kilograms and kilometres**
• **Lesson 2 Millimetres and millilitres**
• **Lesson 3 Convert units of length**
• **Lesson 4 Imperial units of length**
• **Lesson 5 Imperial units of mass**
• **Lesson 6 Imperial units of capacity**
• **Lesson 8 Timetables-calculating**
• **Lesson 10 Problem solving -units of measure (2)**
• **5F–1 Find non-unit fractions of quantities.**

4B Unit 9 Fractions (2)
• **Lesson 7 Fraction of an amount**
• **Lesson 8 Problem solving – fraction of an amount**

5B Unit 8 Fractions (3)
• **Lesson 5 Fraction of an amount**
• **Lesson 6 Finding the whole**

• **5F–2 Find equivalent fractions and understand that they have the same value and the same position in the linear number system.**

5A Unit 5 Fractions (1)
• **Lesson 1 Equivalent fractions**
• **Lesson 2 Equivalent fractions – unit and non-unit fractions**
• **Lesson 3 Equivalent fractions – families of equivalent fractions**

• **5F–3 Recall decimal fraction equivalents for 1/2, 1/4, 1/5 and 1/10, and for multiples of theseproper fractions.**

5B Unit 9 Decimals and percentages
• **Lesson 3 Equivalent fractions and decimals – tenths**
• **Lesson 5 Equivalent fractions and decimals**
• 3.6 Multiplying whole numbers and fractions

5B Unit 8 Fractions (3)
Lesson 2 Multiply non-unit fractions by an integer
Lesson 4 Multiply mixed numbers by integers (2)
Lesson 5 Fraction of an amount
Lesson 7 Using fractions as operators
• 3.7 Finding equivalent fractions and simplifying fractions
• 3.10 Linking fractions, decimals and percentages

5B Unit 9 Decimals and percentages
• **Lesson 13 Understand percentages**
• **Lesson 14 Percentages as fractions and decimals**
• **Lesson 15 Equivalent fractions, decimals and percentages**

10	**Converting units**
	• **5NPV–5 Convert between units of measure, including using common decimals and fractions.**
	5C Unit 16 Measure – converting units
	• **Lesson 1 Kilograms and kilometres**
	• **Lesson 2 Millimetres and millilitres**
	• **Lesson 3 Convert units of length**
	• **Lesson 4 Imperial units of length**
	• **Lesson 5 Imperial units of mass**
	• **Lesson 6 Imperial units of capacity**

11	**Angles**
	• **5G–1 Compare angles, estimate and measure angles in degrees (°) and draw angles of a given size.**
	5C Unit 12 Geometry – properties of shapes
	• **Lesson 1 Understand and use degrees**
	• **Lesson 2 Measure acute angles**
	• **Lesson 3 Measure angles up to 180°**
	• **Lesson 4 Draw lines and angles accurately**
	• **Lesson 5 Calculate angles around a point**
	• **Lesson 6 Calculate angles on a straight line**
	• **Lesson 7 Lengths and angles in shapes**
	• **Lesson 8 Regular and irregular polygons**
	• **Lesson 9 Parallel lines**
	• **Lesson 10 Perpendicular lines**
	• **Lesson 12 3D Shapes**

12	**Statistics**
	This topic is part of the National Curriculum but is not included in the DfE 2020 guidanceor the NCETM Mastery PD Materials.
	5B Unit 11-Graphs and tables
	• **Lesson 3 Read and interpret line graphs (2)**
	• **Lesson 5 Two-way tables**
	• **Lesson 6 Timetables**