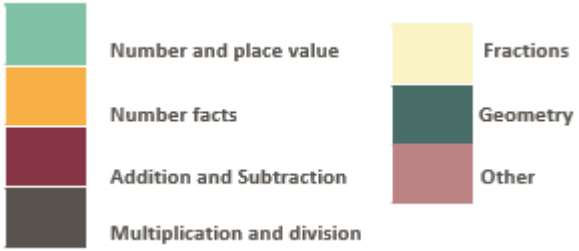
MATHSHUBS
YORKSHIRE RIDINGS

Year 3 and 4 Maths Curriculum
Year A



A	Year 3 and 4	NC Objectives which feature in each unit
1 ⚓	**NCETM Year 3 Unit 1 - Adding and subtracting across 10** • **2AS–1 Add and subtract across 10.** • **3NF–1 Secure fluency in addition and subtraction facts that bridge 10, through continued practice.** • **1.11 Addition and subtraction: bridging 10**	**Y3 Number – Addition and Subtraction** **Solve problems with addition and subtraction:** • using concrete objects and pictorial representations, including those involving numbers, quantities and measures • applying their increasing knowledge of mental and written methods • adding three one-digit numbers • show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot • recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100 (NC Y2 NCETM Y3) **Non Statutory Notes** NAS - Pupils extend their understanding of the language of addition and subtraction to include sum and difference. NAS - Pupils practise addition and subtraction to 20 to become increasingly fluent in deriving facts such as using 3 + 7 = 10; 10 – 7 = 3 and 7 = 10 – 3 to calculate 30 + 70 = 100; 100 – 70 = 30 and 70 = 100 – 30. They check their calculations, including by adding to check subtraction and adding numbers in a different order to check addition (for example, 5 + 2 + 1 = 1 + 5 + 2 = 1 + 2 + 5). This establishes commutativity and associativity of addition. NB – This will be taught as an over teach/deepen unit in both the Year A and Year B cycle.
2 ⚓	**NCETM Year 3 Unit 2 - Numbers to 1,000** • **3NPV–1 Know that 10 tens are equivalent to 1 hundred, and that 100 is 10 times the size of 10; apply this to identify and work out how many 10s there are in other three-digit multiples of 10.** • **3NPV–2 Recognise the place value of each digit in three-digit numbers, and compose and decompose three-digit numbers using standard and non-standard partitioning.** • **3NPV–3 Reason about the location of any three-digit number in the linear number system, including identifying the previous and next multiple of 100 and 10.** • **3NPV–4 Divide 100 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in multiples of 100 with 2, 4, 5 and 10 equal parts.** • **3AS–1 Calculate complements to 100.** • **3NF–3 Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 10).** • **1.17 Composition and calculation: 100 and bridging 100** • **1.18 Composition and calculation: three-digit numbers**	**Y3 Number – Number and Place Value** • count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number • recognise the place value of each digit in a three-digit number (hundreds, tens, ones) • compare and order numbers up to 1000 • identify, represent and estimate numbers using different representations • read and write numbers up to 1000 in numerals and in words • solve number problems and practical problems involving these ideas **Number Addition and Subtraction** • recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100 (NC Y2 NCETM Y3) **Measurement** • measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml) **Non Statutory Notes** NPV - Pupils now use multiples of 2, 3, 4, 5, 8, 10, 50 and 100. NPV - They use larger numbers to at least 1000, applying partitioning related to place value using varied and increasingly complex problems, building on work in year 2 (for example, 146 = 100 + 40 and 6, 146 = 130 + 16).

		NPV - Using a variety of representations, including those related to measure, pupils continue to count in ones, tens and hundreds, so that they become fluent in the order and place value of numbers to 1000. M - Pupils continue to measure using the appropriate tools and units, progressing to using a wider range of measures, including comparing and using mixed units (for example, 1 kg and 200g) and simple equivalents of mixed units (for example, 5m = 500cm).
3	**NCETM Year 4 Unit 2 - Numbers to 10,000** • **4NPV–1 Know that 10 hundreds are equivalent to 1 thousand, and that 1,000 is 10 times the size of 100; apply this to identify and work out how many 100s there are in other four-digit multiples of 100.** • **4NPV–2 Recognise the place value of each digit in four-digit numbers, and compose and decompose four-digit numbers using standard and non-standard partitioning.** • **4NPV–3 Reason about the location of any four-digit number in the linear number system, including identifying the previous and next multiple of 1,000 and 100, and rounding to the nearest of each.** • **4NPV–4 Divide 1,000 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in multiples of 1,000 with 2, 4, 5 and 10 equal parts.** • **4NF–3 Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 100).** • **1.22 Composition and calculation: 1,000 and four-digit numbers**	**Y4 Number – Number and Place Value** • count in multiples of 6, 7, 9, 25 and 1000 • find 1000 more or less than a given number • recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones) • order and compare numbers beyond 1000 • identify, represent and estimate numbers using different representations • round any number to the nearest 10, 100 or 1000 • solve number and practical problems that involve all of the above and with increasingly large positive numbers **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 • estimate and use inverse operations to check answers to a calculation • solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why. **Non Statutory Notes** NPV - Using a variety of representations, including measures, pupils become fluent in the order and place value of numbers beyond 1000, including counting in tens and hundreds, and maintaining fluency in other multiples through varied and frequent practice. NPV - They connect estimation and rounding numbers to the use of measuring instruments NAS - Pupils continue to practise both mental methods and columnar addition and subtraction with increasingly large numbers to aid fluency (see Mathematics Appendix 1)
4 ⚓	**NCETM Year 3 Unit 5 - Column addition (Including NCETM Year 4 Unit 1 - review of Column addition)** • **3AS–2 Add and subtract up to three-digit numbers using columnar methods.** • **1.20 Algorithms: column addition**	**Number - Addition and Subtraction** • add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction (Y3) • estimate the answer to a calculation and use inverse operations to check answers (Y3 and Y4) • solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction (Y3) • Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtractions where appropriate (Y4) • Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why (Y4) **Non Statutory Notes** NAS - Pupils use their understanding of place value and partitioning, and practise using columnar addition and subtraction with increasingly large numbers up to three digits to become fluent (see Mathematics Appendix 1) (Y3) NAS - Pupils continue to practise both mental methods and columnar addition and subtraction with increasingly large numbers to aid fluency (see Mathematics Appendix 1) (Y4) NB – This will be taught as an over teach unit in both the Year A and Year B cycle.
5 ⚓	**NCETM Year 3 Unit 7 - Column subtraction (Including NCETM Year 4 Unit 1 - review of Column subtraction)** • **3AS–2 Add and subtract up to three-digit numbers using columnar methods.** • **1.21 Algorithms: column subtraction**	**Number - Addition and Subtraction** • add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction (Y3) • estimate the answer to a calculation and use inverse operations to check answers (Y3 and 4) • solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction (Y3) • Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtractions where appropriate (Y4) • Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why (Y4)

		Non Statutory Notes NAS - Pupils use their understanding of place value and partitioning, and practise using columnar addition and subtraction with increasingly large numbers up to three digits to become fluent (see Mathematics Appendix 1).(Y3) NAS - Pupils continue to practise both mental methods and columnar addition and subtraction with increasingly large numbers to aid fluency (see Mathematics Appendix 1) (Y4) NB – This will be taught as an over teach unit in both the Year A and Year B cycle.
6	**NCETM Year 4 Unit 4 - 3, 6, 9 times tables** • **4NF–1 Recall multiplication and division facts up to 12×12, and recognise products in multiplication tables as multiples of the corresponding number.** • **2.8 Times tables: 3, 6 and 9, and the relationship between them**	**Y4 Number – Number and Place Value** ● count in multiples of 6, 7, 9, 25 and 1000 **Y4 Number – Multiplication and Division** ● recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables (NC Y3 NCETM Y4) ● recall multiplication and division facts for multiplication tables up to 12 × 12 **Y3 Number – Multiplication and Division** ● Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know **Non Statutory Notes** NMD - Pupils continue to practise recalling and using multiplication tables and related division facts to aid fluency NMD - Pupils now use multiples of 2, 3, 4, 5, 8, 10, 50 and 100. (3x table NC Y3 NCETM Y4)
7	**NCETM Year 4 Unit 5 - 7 times table and patterns** • **4NF–1 Recall multiplication and division facts up to 12×12, and recognise products in multiplication tables as multiples of the corresponding number.** • **2.9 Times tables: 7 and patterns within/across times tables**	**Y4 Number – Multiplication and Division** ● recall multiplication and division facts for multiplication tables up to 12 × 12 **Y3 Number – Multiplication and Division** ● Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know **Non Statutory Notes** NMD - Pupils continue to practise recalling and using multiplication tables and related division facts to aid fluency NMD - Pupils now use multiples of 2, 3, 4, 5, 8, 10, 50 and 100. (3x table NC Y3 NCETM Y4)
8	**NCETM Year 4 Unit 8 - Review of fractions** • **3F–1 Interpret and write proper fractions to represent 1 or several parts of a whole that is divided into equal parts.** • **3.1 Preparing for fractions: the part–whole relationship**	
9	**NCETM Year 3 Unit 8 – Unit Fractions** **(See Year B Maths Curriculum)** ● **3F–2 Find unit fractions of quantities using known division facts (multiplication tables fluency).**	NB – This will be taught as an over teach unit in both the Year A and Year B cycle – shorter 1-week review unit. Depth taught in year B.
10	**NCETM Year 3 Unit 9 – Non-unit Fractions** **(See Year B Maths Curriculum)** ● **3F–4 Add and subtract fractions with the same denominator, within 1.**	NB – This will be taught as an over teach unit in both the Year A and Year B cycle – shorter 1-week review unit. Depth taught in year B.
11	**NCETM Year 4 Unit 9 - Fractions greater than 1** • **4F–1 Reason about the location of mixed numbers in the linear number system.** • **4F–2 Convert mixed numbers to improper fractions and vice versa.** • **4F–3 Add and subtract improper and mixed fractions with the same denominator, including bridging whole numbers.** • **3.5 Working across one whole: improper fractions and mixed numbers**	**Y4 Number – Fractions** ● add and subtract fractions with the same denominator ● They extend the use of the number line to connect fractions, numbers and measures. ● 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, /52 + 4/5 = 6/5 = 1 1/5] (NC Y5 NCETM Y4) **Non-Statutory Notes**

		NF - Pupils practise adding and subtracting fractions to become fluent through a variety of increasingly complex problems. They extend their understanding of adding and subtracting fractions to calculations that exceed 1 as a mixed number. (NC Y5 NCETM Y4) NF - They practise counting using simple fractions and decimals, both forwards and backwards (Daily Counting)
12	**NCETM Year 3 Unit 10 - Parallel and perpendicular sides in polygons** • **3G–2 Draw polygons by joining marked points, and identify parallel and perpendicular sides.**	**Y3 Geometry – Properties of Shape** ● draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them ● identify horizontal and vertical lines and pairs of perpendicular and parallel lines **Non Statutory Notes** GPS - Pupils' knowledge of the properties of shapes is extended at this stage to symmetrical and non-symmetrical polygons and polyhedra. Pupils extend their use of the properties of shapes. They should be able to describe the properties of 2-D and 3-D shapes using accurate language, including lengths of lines and acute and obtuse for angles greater or lesser than a right angle.
13	**NCETM Year 4 Unit 10 - Symmetry in 2D shapes** • **4G–3 Identify line symmetry in 2D shapes presented in different orientations. Reflect shapes in a line of symmetry and complete a symmetric figure or pattern with respect to a specified line of symmetry.**	**Y4 Geometry – Properties of Shapes** ● compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes ● identify lines of symmetry in 2-D shapes presented in different orientations ● complete a simple symmetric figure with respect to a specific line of symmetry. ● **Non Statutory Notes** GPS - Pupils draw symmetric patterns using a variety of media to become familiar with different orientations of lines of symmetry; and recognise line symmetry in a variety of diagrams, including where the line of symmetry does not dissect the original shape.

Times Tables Notes:

Teach single year groups separately (see overview below). Alternate daily between Y3 completing their times table booklet and Y4 completing their times table booklet. 10 minutes per day. Whilst one-year group are completing their booklet the other year group can practise using either their times tables cards or practise the times tables they are learning on TT Rockstars/online platform/face to face games.

Y3/4 A	1	2	3	4	5	6	7	8	9	10	11	12	13
C1	**Unit 1 (NCETM Y3)**		**Unit 2 (NCETM Y3)**										
	Adding and subtracting across 10 ⚓		Numbers to 1,000 ⚓										Consolidation
FF Y3	Adding 1 Commutative: 7 +1 and 1 +7	Doubles of numbers to 5 1+1, 2+2, 3+3, 4+4, 5+5	Adding 2 Commutative: 7 +2 and 2 +7	Number bonds to 10 Commutative: 0+10, 1+9, 2+8, 3+7, 4+6		Adding 10 To single digits	Adding 0 Commutative	The ones without a family 3 +5, 5+3, 3+6, 6+3	Near Doubles within 10 3+4 4+3, 4+5, 5+4	Doubles of numbers to 10 6+6, 7+7, 8+8, 9+9, 10+10	Near doubles bridging 10 5+6, 6+5, 6+7, 7+6	Near doubles bridging 10 7+8, 8+7, 8+9, 9+8	Bridging 10 3+8, 8+3 3+9, 9+3
FF Y4	Recap Year 3 All Addition/Subtraction facts within 10. 2,5,4, 10 tts			3 times table 4 new facts (3x3, 6x3, 7x3, 9x3)			All 3 times table Plus all previously learnt facts			6 times table 3 new facts (6x6, 7x6, 9x6)			All 6 times table Plus all previously learnt facts
C2	**Unit 3 (NCETM Y4 – Unit 2)** Numbers to 10,000					**Unit 4 (NCETM Y3 Unit 5 and Y4 Unit 1**) Column addition Review of column addition ⚓		**Unit 5 (NCETM Y3 Unit 7 and Y4 Unit 1)** Column subtraction Review of column subtraction ⚓	**Unit 6 (NCETM Y4 Unit 4)** 3, 6, 9 times tables				Consolidation

FF Y3	Bridging 10 4+7, 7+4, 4+8, 8+4, 4+9, 9+4	Bridging 10 5+7, 7+5, 5+8, 8+5, 5+9, 9+5	Bridging 10 6+8, 8+6, 6+9, 9+6	All additive facts mix	2 times table (multiplier first)	2 times table (multiplier first or second)	2 times table (division facts added in)	2 times table	2 times table	5 times table (2x5 to 6x 5)	5 times table (2x5 to 6x 5)	5 times table (7x5 to 9x5)	5 times table (all)
FF Y4	All 6 times table Plus all previously learnt facts		9 times table 2 new facts (9x7, 9x9)			All 9 times table Plus all previously learnt facts	7 times tables 1 new fact (7x7)		All 7 times tables plus previously learnt facts	11 times table	11 times table plus previously learnt facts	12 times table	12 times table plus previously learnt facts
C3	**Unit 7 (NCETM Y4 Unit 4)** 7 times table and patterns		**Unit 8 (NCETM Y4 Unit 8)** Review of fractions from KS1	**Unit 9 (NCETM Y3 Unit 8)** Unit fractions ⚓	**Unit 10 (NCETM Y3 Unit 9)** Non-unit fractions ⚓	**Unit 11 (NCETM Y4 Unit 9)** Fractions greater than 1 ⚓				**Unit 12 (NCETM Y3 Unit 10)** Parallel and perpendicular sides in polygons		**Unit 13 (NCETM Y4 Unit 10)** Symmetry in 2D shapes	Consolidation
FF Y3	5 times table (all) and 2tt	4 times table (2 x4 to 6x4)	4 times table (7 x4 to 9x4)	4 times table all facts comm and division facts	2, 4, 5tt facts comm and division facts	2, 4, 5tt facts comm and division facts	2, 4, 5tt facts comm and division facts	8 times table (8x3, 8x6, 8x7, 8x8, 8x9)	8 times table (8x3, 8x6, 8x7, 8x8, 8x9)	8 times table (all)	2, 4, 5, 8tt facts comm and division facts	2, 4, 5, 8tt facts comm and division facts	2, 4, 5, 8tt facts comm and division facts
FF Y4	All times tables up to 12x12		All to 12 x12 practice - online practice and targeted booklet intervention						MTC	All to 9x9 practice for some and All in MTC for some			

[Ready to progress Criteria Year 3 and year 4 with examples and assessment questions - page 82 onwards]

Year 3 and 4 Assessments:

Assess all throughout Summer Term and formatively assess during the year at following points:

RTP - Mixed Age Year 3 / 4 Year A	Last Taught in	Assess End of Term
● ⚓ 2AS–1 Add and subtract across 10. (Consolidate from Year 2)	⚓ YA and YB	1,2,3
● 4NPV–1 Know that 10 hundreds are equivalent to 1 thousand, and that 1,000 is 10 times the size of 100; apply this to identify and work out how many 100s there are in other four-digit multiples of 100.	unit 3	3
● 4NPV–2 Recognise the place value of each digit in four-digit numbers, and compose and decompose four-digit numbers using standard and non-standard partitioning.	unit 3	2
● 4NPV–3 Reason about the location of any four-digit number in the linear number system, including identifying the previous and next multiple of 1,000 and 100, and rounding to the nearest of each.	unit 3	2
● 4NPV–4 Divide 1,000 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in multiples of 1,000 with 2, 4, 5 and 10 equal parts.	unit 3	2
● ⚓ 3NF–1 Secure fluency in addition and subtraction facts that bridge 10, through continued practice.	⚓ unit 1	1
● ⚓ 3NF–3 Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 10).	⚓ unit 2	1
● 4NF–1 Recall multiplication and division facts up to 12×12, and recognise products in multiplication tables as multiples of the corresponding number.	unit 7	3

Ready-to-progress criteria strands	Code
Number and place value	NPV
Number facts	NF
Addition and subtraction	AS
Multiplication and division	MD
Fractions	F
Geometry	G

● ⚓ 4NF–3 Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 100).	unit 3	2
● 3NPV–1 Know that 10 tens are equivalent to 1 hundred, and that 100 is 10 times the size of 10; apply this to identify and work out how many 10s there are in other three-digit multiples of 10.	⚓ unit 2	1
● ⚓ 3NPV–2 Recognise the place value of each digit in three-digit numbers, and compose and decompose three-digit numbers using standard and non-standard partitioning.	⚓ unit 2	1
● ⚓ 3NPV–3 Reason about the location of any three-digit number in the linear number system, including identifying the previous and next multiple of 100 and 10.	⚓ unit 2	1
● 3NPV–4 Divide 100 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in multiples of 100 with 2, 4, 5 and 10 equal parts.	⚓ unit 2	1
● 3AS–1 Calculate complements to 100.	⚓ unit 2	1
● ⚓ 3AS–2 Add and subtract up to three-digit numbers using columnar methods.	⚓ unit 5	2
● ⚓ 3F–1 Interpret and write proper fractions to represent 1 or several parts of a whole that is divided into equal parts.	unit 8	3
● ⚓ 3F–2 Find unit fractions of quantities using known division facts (multiplication tables fluency).	⚓ unit 9	
● ⚓ 3F–4 Add and subtract fractions with the same denominator, within 1.	⚓ unit 10	
● ⚓ 4F–1 Reason about the location of mixed numbers in the linear number system.	⚓ unit 11	3
● 4F–2 Convert mixed numbers to improper fractions and vice versa.	⚓ unit 11	3
● 4F–3 Add and subtract improper and mixed fractions with the same denominator, including bridging whole numbers.	⚓ unit 11	3
● 3G–2 Draw polygons by joining marked points, and identify parallel and perpendicular sides.	unit 12	3
● 4G–3 Identify line symmetry in 2D shapes presented in different orientations. Reflect shapes in a line of symmetry and complete a symmetric figure or pattern with respect to a specified line of symmetry.	unit 13	3
Year 3 Foundational Fluency Facts		
1. Secure fluency in addition and subtraction facts to and that bridge 10, through continued practice.	**FFF Cycle 1**	**1,2,3**
2. Recall multiplication facts, and corresponding division facts, in the 5, 2, 4, 8 and 10 multiplication tables, and recognise products in these multiplication tables as multiples of the corresponding number.	**FFF Cycle 2 and 3**	**1,2,3**
Year 4 Foundational Fluency Facts		
1. Recall multiplication facts, and corresponding division facts, in the 10, 5, 2, 4, and 10 multiplication tables, and recognise products in these multiplication tables as multiples of the corresponding number.	**FFF Year 3 (to consolidate)**	**1,2,3**
2. Recall multiplication and division facts up to 12×12, and recognise products in multiplication tables as multiples of the corresponding number.	**FFF Cycle 1,2,3**	**1,2,3**

Y3/4 A	1	2	3	4	5	6	7	8	9	10	11	12	13
C1	**Unit 1 (NCETM Y3)**		**Unit 2 (NCETM Y3)**										
	Adding and subtracting across 10 ⚓		Numbers to 1,000 ⚓										Consolidation
C2	**Unit 3 (NCETM Y4 – Unit 2)**					**Unit 4 (NCETM Y3 Unit 5 and Y4 Unit 1**) Column addition		**Unit 5 (NCETM Y3 Unit 7 and Y4 Unit 1)** Column subtraction	**Unit 6 (NCETM Y4 Unit 4)**				
	Numbers to 10,000					Review of column addition ⚓		Review of column subtraction ⚓	3, 6, 9 times tables				Consolidation
C3	**Unit 7 (NCETM Y4 Unit 4)**		**Unit 8 (NCETM Y4 Unit 8)**	**Unit 9 (NCETM Y3 Unit 8)**	**Unit 10 (NCETM Y3 Unit 9)**	**Unit 11 (NCETM Y4 Unit 9)**				**Unit 12 (NCETM Y3 Unit 10)**		**Unit 13 (NCETM Y4 Unit 10)**	
	7 times table and patterns		Review of fractions from KS1	Unit fractions ⚓	Non-unit fractions ⚓	Fractions greater than 1 ⚓				Parallel and perpendicular sides in polygons		Symmetry in 2D shapes	Consolidation