# Year 3/4 (Year A and Year B) Curriculum Prioritisation

## Two-year rolling programme for mixed-age classes

These overviews provide a two-year rolling programme through the NCETM Curriculum Prioritisation materials (Year A and Year B) for both Year 3/4 and Year 5/6 classes. The materials aim to maintain the sequential, pre-requisite nature of the ready-to-progress criteria as far as practicable, with the benefit of teaching two year groups as a whole class.

The Curriculum Prioritisation units from both Year 3 and Year 4 have been sequenced across a two-year period, allowing teachers to teach the whole class together. This is achieved in lower Key Stage 2 through securing additive structures, whilst introducing multiplicative structures; providing over-learning and scaffolding through 'anchor units' while using a teaching for mastery approach.

## Anchor units

These units are essential to allow for sequential learning for all pupils, providing the core pre-requisites for future units. These units allow for new learning for the younger year group, and over-learning for the older year group. These units are noted with an anchor symbol (⚓).

## Where to start?

For schools looking to move towards the two-year rolling programme, we would recommend starting on Year A of the cycle which predominantly covers the NPV content for both year groups. However, depending on pupils' previous experiences, schools could choose to begin on Year B with a clear rationale for Year 4 pupils meeting the Ready to Progress criteria for Year 4.

## Implementation Year Considerations

Whilst adopting the two-year curriculum, the older year group's previous learning must be considered as they begin the sequence halfway through.

Some schools may decide to use a split-class approach during **Unit 2: Numbers to 1,000** in the first year only: this provides an opportunity for the Year 4 pupils to cover units which would not be covered as they begin the cycle halfway through.

This is school-curriculum dependent and must be considered carefully.

The Year 4 units not covered in Year A and which must be considered in the implementation year only are:

**Year 4 Unit 3: Perimeter**
4G–2 Identify regular polygons, including equilateral triangles and squares, as those in which the side-lengths are equal and the angles are equal. Find the perimeter of regular and irregular polygons.

**Year 4 Unit 6: Understanding and manipulating multiplicative relationships**
4MD–1 Multiply and divide whole numbers by 10 and 100 (keeping to whole number quotients); understand this as equivalent to making a number 10 or 100 times the size.
4MD–2 Manipulate multiplication and division equations, and understand and apply the commutative property of multiplication.
4MD–3 Understand and apply the distributive property of multiplication.
4NF–3 Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 100)

**Year 4 Unit 7: Co-ordinates**
4G–1 Draw polygons, specified by coordinates in the first quadrant, and translate within the first quadrant.

**Year 4 Unit 12: Division with remainders**
4NF–2 Solve division problems, with two-digit dividends and one-digit divisors, that involve remainders.

Some schools may decide to find alternative teaching time for these units, or find that their pupils have covered the content previously.

Whilst starting with the 2, 4 and 8 times tables may be preferable over the 3, 6 and 9 times table, it is not compulsory. The structure of these units focuses on deep understanding, including how to represent the tables, divisibility rules and the connections between them, therefore the order of these units can be interchangeable.

Consolidation weeks are built into Year A to accommodate these considerations.

# **Year 3/4 (Year A)** Mixed-age planning materials with guidance

| Interactive navigation | Unit | Considerations |
|---|---|---|
| 1 | **Adding and subtracting across 10** *(NCETM Year 3, Unit 1, 2 weeks)*<br>• 2AS–1 Add and subtract across 10.<br>• 3NF–1 Secure fluency in addition and subtraction facts that bridge 10, through continued practice.<br>• 1.11 Addition and subtraction: bridging 10 | This is a fundamental skill that children must be secure with to access the Key Stage 2 curriculum, and therefore is taught as an anchor unit at the beginning of both Years A and B. This is supportive for written methods so is sequenced as a pre-requisite for column addition and subtraction in both years. |
| 2 | **Numbers to 1,000** *(NCETM Year 3, Unit 2 10 weeks)*<br>• 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.<br>• 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.<br>• 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.<br>• 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.<br>• 3AS–1 Calculate complements to 100.<br>• 3NF–3 Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 10)<br>• 1.17 Composition and calculation: 100 and bridging 100<br>• 1.18 Composition and calculation: three-digit numbers | The similarities of Unit 2 and Unit 3 provide pupils with the opportunity to build on the concepts within the ready-to-progress criteria: Number and place value, Number facts and Addition and Subtraction.<br>Key concepts of Numbers to 1,000 are revisited as an introduction and review unit in Year B. |
| | *Consolidation (1 week)* | |
| 3 | **Numbers to 10,000** *(NCETM Year 4, Unit 2, 5 weeks)*<br>• 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.<br>• 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.<br>• 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.<br>• 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.<br>• 4NF–3 Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 100).<br>• 1.22 Composition and calculation: 1,000 and four-digit numbers | The similarities of Unit 2 and Unit 3 provide pupils the opportunity to build on the concepts within the ready-to-progress criteria: Number and place value, Number facts and Addition and Subtraction. |
| 4 | **Column addition** *(NCETM Year 3, Unit 5 & Year 4, Unit 1, 2 weeks)*<br>• 3AS–2 Add and subtract up to three-digit numbers using columnar methods<br>• 1.20 Algorithms: column addition | This unit is taught in full in both Years A and B to provide over-learning for older pupils and new learning for the younger pupils. |
| 5 | **Column subtraction** *(NCETM Year 3, Unit 7 & Year 4, Unit 1, 1 week)*<br>• 3AS–2 Add and subtract up to three-digit numbers using columnar methods.<br>• 1.21 Algorithms: column subtraction | This unit is taught in full in both Years A and B to provide over-learning for older pupils and new learning for the younger pupils. |
| 6 | **3, 6, 9 times tables** *(NCETM Year 4, Unit 4, 4 weeks)*<br>• 4NF–1 Recall multiplication and division facts up to 12×12, and recognise products in multiplication tables as multiples of the corresponding number.<br>• 2.8 Times tables: 3, 6 and 9, and the relationship between them | Whilst starting with the 2, 4 and 8 times tables may be preferable over the 3, 6 and 9 times table, it is not compulsory. The structure of these units focuses on deep understanding, including how to represent the tables, divisibility rules and the connections between them, therefore the order of these units can be interchangeable. |
| | *Consolidation (1 week)* | |

Number and place value
Number facts
Addition and subtraction
Multiplication and division
Fractions
Geometry
Other
Anchor unit

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

**Both are available online**

# **Year 3/4 (Year A)** Mixed-age planning materials with guidance

| Interactive navigation | Unit | Considerations |
|---|---|---|
| 7 | **7 times table and patterns** *(NCETM Year 4, Unit 4, 2 weeks)*<br>• **4NF–1 Recall multiplication and division facts up to 12×12, and recognise products in multiplication tables as multiples of the corresponding number.**<br>• 2.9 Times tables: 7 and patterns within/across times tables | The structure of this unit focuses on deep understanding, including how to represent the 7 times table, divisibility rules and making connections. |
| 8 | **Review of fractions** *(NCETM Year 4, Unit 8, 1 week)*<br>• **3F–1 Interpret and write proper fractions to represent 1 or several parts of a whole that is divided into equal parts.**<br>• 3.1 Preparing for fractions: the part–whole relationship | This takes fractions back to the first principles of parts and wholes, giving **all** pupils the opportunity to recap and deepen their understanding. |
| 9 | **Unit fractions** *(NCETM Year 3, Unit 8, 1 week)* ⚓<br>• **3F–1 Interpret and write proper fractions to represent 1 or several parts of a whole that is divided into equal parts.**<br>• **3F–2 Find unit fractions of quantities using known division facts (multiplication tables fluency).**<br>• 3.1 Preparing for fractions: the part–whole relationship<br>• 3.2 Unit fractions: identifying, representing and comparing | In Year A, unit fractions is condensed into a week introduction and review unit. It is taught in full in Year B, combined, this allows for increased time given to this core concept. Teachers will use their discretion to identify which learning outcomes to use. Learning Outcomes 1-6 are covered in Unit 8, Review of Fractions, In Unit 9, some teachers have chosen to cover Learning Outcomes 7-9 and also choose to cover Learning Outcomes 19 and 20. |
| 10 | **Non-unit fractions** *(NCETM Year 3, Unit 9, 1 week)* ⚓<br>• **3F–1 Interpret and write proper fractions to represent 1 or several parts of a whole that is divided into equal parts.**<br>• **3F–3 Reason about the location of any fraction within 1 in the linear number system.**<br>• **3F–4 Add and subtract fractions with the same denominator, within 1.**<br>• 3.4 Adding and subtracting within one whole | In Year A, non-unit fractions is condensed into a week introduction and review unit. It is taught in full in Year B, combined, this allows for increased time to be given to these core concepts. Teachers will use their discretion to identify which learning outcomes to use. In Unit 10, some teachers have chosen to cover Learning Outcomes 1-3 and 13-15. |
| 11 | **Fractions greater than 1** *(NCETM Year 4, Unit 9, 4 weeks)* ⚓<br>• **4F–1 Reason about the location of mixed numbers in the linear number system.**<br>• **4F–2 Convert mixed numbers to improper fractions and vice versa.**<br>• **4F–3 Add and subtract improper and mixed fractions with the same denominator, including bridging whole numbers.**<br>• 3.5 Working across one whole: improper fractions and mixed numbers | This unit is taught in full for all pupils, providing over-learning of the first learning outcomes for older pupils before moving onto new learning outcomes. |
| 12 | **Parallel and perpendicular sides in polygons** *(NCETM Year 3, Unit 10, 2 weeks)*<br>• **3G–2 Draw polygons by joining marked points, and identify parallel and perpendicular sides.** | |
| 13 | **Symmetry in 2D shapes** *(NCETM Year 4, Unit 10, 1 week)*<br>• **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.** | |
| | *Consolidation (1 week)* | |

Number and place value
Number facts
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Fractions
Geometry
Other
⚓ Anchor unit

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# **Year 3/4 (Year B)** Mixed-age planning materials with guidance

| Interactive navigation | Unit | Considerations |
|---|---|---|
| 1 | **Adding and subtracting across 10** *(NCETM Year 3, Unit 1, 2 weeks)*<br>• 2AS–1 Add and subtract across 10.<br>• 3NF–1 Secure fluency in addition and subtraction facts that bridge 10, through continued practice.<br>• 1.11 Addition and subtraction: bridging 10 | This is a fundamental skill that children must be secure with to access the Key Stage 2 curriculum, and therefore is taught as an anchor unit at the beginning of both Years A and B. This is supportive for written methods so is sequenced as a pre-requisite for column addition and subtraction in both years. |
| 2 | **Numbers to 1,000** *(NCETM Year 3, Unit 3, 2 weeks)*<br>• 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.<br>• 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.<br>• 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.<br>• 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.<br>• 3AS–1 Calculate complements to 100.<br>• 3NF–3 Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 10)<br>• 1.17 Composition and calculation: 100 and bridging 100<br>• 1.18 Composition and calculation: three-digit numbers | Teachers will use their discretion to identify which learning outcomes to use in this two-week introduce and review unit.<br><br>Some teachers have chosen to cover Learning Outcomes 1-15. This will enable pupils to access Unit 3, Manipulating the additive relationship and securing mental calculation; Unit 4 Column Addition; and Unit 5 Column Subtraction. |
| 3 | **Manipulating the additive relationship and securing mental calculation**<br>*(NCETM Year 3, Unit 4, 4 weeks)*<br>• 3AS–3 Manipulate the additive relationship: Understand the inverse relationship between addition and subtraction, and how both relate to the part–part–whole structure. Understand and use the commutative property of addition, and understand the related property for subtraction.<br>• 1.19 Securing mental strategies: calculation up to 999 | This unit exposes children to the place value of three-digit numbers by making connections to two-digit numbers already secured. Teachers should focus on these structures throughout the unit, drawing on knowledge from Unit 2: Numbers to 1,000. |
| 4 | **Column addition** *(NCETM Year 3, Unit 5 & Year 4, Unit 1, 2 weeks)*<br>• 3AS–2 Add and subtract up to three-digit numbers using columnar methods<br>• 1.20 Algorithms: column addition | This unit is taught in full in both Years A and B to provide over-learning for older pupils and new learning for the younger pupils. |
| 5 | **Column subtraction** *(NCETM Year 3, Unit 7 & Year 4, Unit 1, 1 week)*<br>• 3AS–2 Add and subtract up to three-digit numbers using columnar methods.<br>• 1.21 Algorithms: column subtraction | This unit is taught in full in both Years A and B to provide over-learning for older pupils and new learning for the younger pupils. |
| 6 | **2, 4, 8 times tables** *(NCETM Year 3, Unit 6, 3 weeks)*<br>• 3MD–1 Apply known multiplication and division facts to solve contextual problems with different structures, including quotative and partitive division.<br>• 3NF–2 Recall multiplication facts, and corresponding division facts, in the 10, 5, 2, 4 and 8 multiplication tables, and recognise products in these multiplication tables as multiples of the corresponding number.<br>• 3NF–3 Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 10).<br>• 2.7 Times tables: 2, 4 and 8, and the relationship between them | The structure of these units focuses on deep understanding, including how to represent the tables, divisibility rules and the connections between them, therefore the order of these units can be interchangeable. |

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# **Year 3/4 (Year B)** Mixed-age planning materials with guidance

| Interactive navigation | Unit | Considerations |
|---|---|---|
| 7 | **Understanding and manipulating multiplicative relationships** *(NCETM Year 4, Unit 6, 5 weeks)*<br>• 4MD–1 Multiply and divide whole numbers by 10 and 100 (keeping to whole number quotients); understand this as equivalent to making a number 10 or 100 times the size.<br>• 4MD–2 Manipulate multiplication and division equations, and understand and apply the commutative property of multiplication.<br>• 4MD–3 Understand and apply the distributive property of multiplication.<br>• 4NF–3 Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 100)<br>• 2.10 Connecting multiplication and division, and the distributive law<br>• 2.13 Calculation: multiplying and dividing by 10 or 100 | |
| 8 | **Unit fractions** *(NCETM Year 3, Unit 8, 5 weeks)*<br>• 3F–1 Interpret and write proper fractions to represent 1 or several parts of a whole that is divided into equal parts.<br>• 3F–2 Find unit fractions of quantities using known division facts (multiplication tables fluency).<br>• 3.1 Preparing for fractions: the part–whole relationship<br>• 3.2 Unit fractions: identifying, representing and comparing | This unit is taught in full for all pupils, providing over-learning of the first learning outcomes for older pupils before moving onto new learning outcomes. |
| 9 | **Non-Unit Fractions** *(NCETM Year 3, Unit 9, 4 weeks)*<br>• 3F–1 Interpret and write proper fractions to represent 1 or several parts of a whole that is divided into equal parts.<br>• 3F–3 Reason about the location of any fraction within 1 in the linear number system.<br>• 3F–4 Add and subtract fractions with the same denominator, within 1.<br>• 3.3 Non-unit fractions: identifying, representing and comparing.<br>• 3.4 Adding and subtracting within one whole | This unit is taught in full for all pupils, providing over-learning of the first learning outcomes for older pupils before moving onto new learning outcomes. |
| 10 | **Fractions greater than 1** *(NCETM Year 4, Unit 9, 2 weeks)*<br>• 4F–1 Reason about the location of mixed numbers in the linear number system.<br>• 3.5 Working across one whole: improper fractions and mixed numbers | This unit is taught as an introduction for younger pupils, and a review for older pupils. Teachers will use their discretion to identify which learning outcomes to use in this two-week unit, some teachers have chosen to cover Learning Outcomes 1-9. |
| 11 | **Right Angles** *(NCETM Year 3, Unit 3, 2 weeks)*<br>• 3G–1 Recognise right angles as a property of shape or a description of a turn, and identify right angles in 2D shapes presented in different orientations. | |
| 12 | **Perimeter** *(NCETM Year 4, Unit 3, 2 weeks)*<br>• 4G–2 Identify regular polygons, including equilateral triangles and squares, as those in which the side-lengths are equal and the angles are equal. Find the perimeter of regular and irregular polygons.<br>• 2.16 Multiplicative contexts: area and perimeter 1 | |
| 13 | **Coordinates** *(NCETM Year 4, Unit 7, 2 weeks)*<br>• 4G–1 Draw polygons, specified by coordinates in the first quadrant, and translate within the first quadrant. | |
| 14 | **Time** *(NCETM Year 3, Unit 11, 1 week)*<br>• This topic is part of the National Curriculum but is not included in the DfE 2020 guidance or the NCETM Mastery PD Materials. | The teaching of time has been reduced across both Years 3 and 4, although other opportunities to make connections within other units and in cross-curricular opportunities should be maximised. Some schools choose to use one of the consolidation weeks in Year A to teach time. |
| 15 | **Division with remainders** *(NCETM Year 4, Unit 12, 2 weeks)*<br>• 4NF–2 Solve division problems, with two-digit dividends and one-digit divisors, that involve remainders.<br>• 2.12 Division with remainders | |

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# Factual Fluency

Split inputs for each year group are recommended to provide sufficient time and opportunity to support the learning, consolidation and retention of number facts and strategies. Schools may choose to use the Mastering Number Programme to support this.

**Mastering Number at Year 3**
Supports the teaching and consolidation of the following ready-to-progress criteria:

2NF–1 Secure fluency in addition and subtraction facts within 10, through continued practice.
3NF–1 Secure fluency in addition and subtraction facts that bridge 10, through continued practice.
3NF–3 Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 10).
3AS–3 Manipulate the additive relationship: Understand the inverse relationship between addition and subtraction, and how both relate to the part–part–whole structure. Understand and use the commutative property of addition, and understand the related property for subtraction.

*(Schools to determine the level of need for the Year 3 Mastering Number blocks 2, 3, 4, 5. All Year 3 pupils will benefit from blocks 1, 6, 7, 8).*

**Mastering Number at Year 4**
Supports the teaching and consolidation of the following ready-to-progress criteria:

3NF–2 Recall multiplication facts, and corresponding division facts, in the 10, 5, 2, 4 and 8 multiplication tables, and recognise products in these multiplication tables as multiples of the corresponding number.
4NF–1 Recall multiplication and division facts up to 12 × 12, and recognise products in multiplication tables as multiples of the corresponding number.
4MD–2 Manipulate multiplication and division equations, and understand and apply the commutative property of multiplication.
4MD–3 Understand and apply the distributive property of multiplication.

*(Schools may choose to begin the first block of Mastering Number Year 4 in summer term with the Year 3 pupils).*