

Year 3 Curriculum Overview- 2023-24

The Year 3 Curriculum has been designed using the NCETM PD materials and the DFE Teaching Mathematics in Primary Schools documents. Sequencing is based on the recommendations of the NCETM curriculum prioritisation curriculum

This is a working document and timing can be adapted to meet the needs of the children.

Autumn 1	
NCETM PD materials: 1.17 Composition and calculation: 100 and bridging 100	
Week 1, 2, 3, 4	• Teaching point 1: There are ten tens in 100; there are 100 ones in 100. 100 can also be composed multiplicatively from 50, 25 or 20, units that are commonly used in graphing and measures. • Teaching point 2: Known addition facts can be used to calculate complements to 100. • Teaching point 3: Known strategies for addition and subtraction across the tens boundary can be combined with unitising to count and calculate across the hundreds boundary in multiples of ten. • Teaching point 4: Knowledge of two-digit numbers can be extended to count and calculate across the hundreds boundary from/to any two-digit number in ones or tens. Ensure you are satisfied that at the end of the unit children are secure with the Ready to Progress Criteria: 3NPV1- 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. 3AS1- Calculate complements to 100, for example: $46 + ? = 100$
NCETM PD materials: 1.18 Composition and calculation: 3 digit numbers Explore the composition of three-digit numbers; use place-value and partitioning knowledge to support additive calculation, and extend known additive strategies to three-digit numbers.	
Week 5, 6, 7 and 8 Aut 2 – week 1, 2, 3 4.	• Teaching point 1: Three-digit numbers can be composed additively from hundreds, tens and ones; this structure can be used to support additive calculation. • Teaching point 2: Each number on the 0 to 1,000 number line has a unique position.

Year 3 Curriculum Overview- 2023-24

	• Teaching point 3: The smallest three-digit number is 100, and the largest three-digit number is 999; the relative size of two three-digit numbers can be determined by examining the hundreds digits, then the tens digits, and then the ones digits, as necessary. • Teaching point 4: Three-digit multiples of ten can be expressed multiplicatively and additively, in terms of tens or hundreds. • Teaching point 5: Known facts and strategies for addition and subtraction within and across ten, and within and across 100, can be used to support additive calculation within 1,000. • Teaching point 6: Familiar counting sequences can be extended up to 1,000. Ensure you are satisfied that at the end of the unit children are secure with the Ready to Progress Criteria: 3NPV2- Recognise the place value of each digit in three-digit number and compose and decompose three digit multiples of 10. 3NPV3- 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.
NCETM PD materials: 1.19 Composition and calculation: calculation up to 999 Build on segments 1.15 and 1.16 to equip children with useful calculation strategies for bridging hundreds boundaries, and three-digit numbers; continue to use the partitioning structure to facilitate calculation. Use Pre- assessment of unit 1.15 and 1.16 (from Y2) before starting the unit	
Week 6 – Assessment Week Spring 1 – Week 1 and 2.	• Teaching point 1: Known partitioning strategies for adding two-digit numbers within 100 can be extended to the mental addition of two-digit numbers that bridge 100, and addition of three-digit numbers. • Teaching point 2: Transforming addition calculations into equivalent calculations can support efficient mental strategies. • Teaching point 3: Subtraction calculations can be solved using a 'finding the difference' strategy; this can be thought of as 'adding on' to find a missing part.

Year 3 Curriculum Overview- 2023-24

	• Teaching point 4: The order of addition and subtraction steps in a multi-step calculation can be chosen or manipulated such as to simplify the arithmetic. Ensure you are satisfied that at the end of the unit children are secure with the Ready to Progress Criteria: 3NF-3 Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 10), for example: $80 + 60 = 140$, $140 - 60 = 80$, $30 \times 4 = 120$, $120 \div 4 = 30$
Spring 1	
NCETM PD materials: 2.7 Times tables: 2, 4 and 8 and the relationships between them. Build up the four/eight times table; using different structures/interpretations of multiplication and division, solve problems related to these tables; explore connections between the two, four and eight times tables.	
Week 3	Use this first week as an opportunity to revise key content on units 2.3-2.4 from Y2 as well as quotative and partitive division. Ensure children are secure with this previous learning before progressing to the next unit
Week 4	Ready to Progress: 3NPV4 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.
Week 5 Spring Week 1, 2	• Teaching point 1: Counting in multiples of four can be represented by the four times table. Adjacent multiples of four have a difference of four. Facts from the four times table can be used to solve multiplication and division problems with different structures. • Teaching point 2: Products in the four times table are double the products in the two times table; products in the two times table are half of the products in the four times table. • Teaching point 3: Counting in multiples of eight can be represented by the eight times table. Adjacent multiples of eight have a difference of eight. Facts from the eight times table can be used to solve multiplication and division problems with different structures. • Teaching point 4: Products in the eight times table are double the products in the four times table; products in the four times table are half of the products in the eight times table. Products that are in the two, four and eight times tables share the same factors. • Teaching point 5: Divisibility rules can be used to find out whether a given number is divisible (to give a

Year 3 Curriculum Overview- 2023-24

	whole number) by two, four or eight. Ensure you are satisfied that at the end of the unit children are secure with the 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.
Week 3	Assessment
Spring 2	
NCETM PD materials: 1.20 Algorithms: column addition Introduce children to the column algorithm for addition calculations, applying the algorithm to a variety of aggregation and augmentation contexts for two-digit and three-digit numbers; explore regrouping (column total is ten or greater) in detail.	
Week 4	Pre Assessment • Teaching point 1: Any numbers can be added together using an algorithm called '<i>column addition</i>'. • Teaching point 2: The digits of the addends must be aligned correctly before the algorithm is applied. • Teaching point 3: In column addition, the digits of the addends are added working from the least significant digit (on the right) to the most significant digit (on the left). • Teaching point 4: If any column sums to ten or greater, we must '<i>regroup</i>'. • Teaching point 5: The numbers within each column should be added in the most efficient order. Ensure you are satisfied that at the end of the unit children are secure with the Ready to Progress Criteria: 3AS-3 Add and subtract up to three-digit numbers using columnar methods.
2.8 Times tables: 3, 6 and 9, and the relationship between them Build up the three/six/nine times table; using different structures/interpretations of multiplication and division, solve problems related to these tables; explore connections between the three, six and nine times tables.	
Week 4-6	• Teaching point 1: Counting in multiples of three can be represented by the three times table. Adjacent multiples of three have a difference of three. Facts from the three times table can be used to solve

Year 3 Curriculum Overview- 2023-24

	multiplication and division problems with different structures. • Teaching point 2: Counting in multiples of six can be represented by the six times table. Adjacent multiples of six have a difference of six. Facts from the six times table can be used to solve multiplication and division problems with different structures. • Teaching point 3: Products in the six times table are double the products in the three times table; products in the three times table are half of the products in the six times table. • Teaching point 4: Counting in multiples of nine can be represented by the nine times table. Adjacent multiples of nine have a difference of nine. Facts from the nine times table can be used to solve multiplication and division problems with different structures. • Teaching point 5: Products in the nine times table are triple the products in the three times table. Products that are in the three, six and nine times tables share the same factors. • Teaching point 6: Divisibility rules can be used to find out whether a given number is divisible (to give a whole number) by three, six or nine.
Summer 1	
NCETM PD materials: 1.21 Algorithms: column subtraction Introduce children to the column algorithm for subtraction calculations, applying the algorithm to a variety of partitioning, reduction and difference contexts for two-digit and three-digit numbers; explore exchange (insufficient quantity to subtract from in a column) in detail.	
Week 1	Pre Unit assessment based on Y2 • Teaching point 1: One number can be subtracted from another using an algorithm called '<i>column subtraction</i>'; the digits of the minuend and subtrahend must be aligned correctly; the algorithm is applied working from the least significant digit (on the right) to the most significant digit (on the left). • Teaching point 2: If there is an insufficient number of any unit to subtract from in a given column, we must exchange from the column to the left. Ensure you are satisfied that at the end of the unit children are secure with the Ready to Progress Criteria:

Year 3 Curriculum Overview- 2023-24

	3AS-3 Add and subtract up to three-digit numbers using columnar methods. 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.
Geometry	
Week 2	Ready to Progress Criteria: 3G1- 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. 3G2- Draw polygons by joining marked points, and identify parallel and perpendicular sides. - draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them - recognise angles as a property of shape or a description of a turn - 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 - identify horizontal and vertical lines and pairs of perpendicular and parallel lines.
NCETM PD materials: 3.1 Preparing for fractions: the part- whole relationship Identify parts and wholes of areas, lengths and sets. Identify equal and unequal parts; make judgements about the relative size of a part to a whole. Find the whole when the size of a part and number of equal parts is known.	
Week 3 and 4	Teaching point 1: Any element of a whole is a part; if a whole is defined, then a part of this whole can be defined. Teaching point 2: A whole can be divided into equal parts or unequal parts. Teaching point 3: The relative size of parts can be compared. Teaching point 4: If one of the equal parts and the number of equal parts are known, these can be used

Year 3 Curriculum Overview- 2023-24

	to construct the whole. Ensure you are satisfied that at the end of the unit children are secure with the Ready to Progress Criteria: 3F-1 Interpret and write proper fractions to represent 1 or several parts of a whole that is divided into equal parts.
Summer 2	
NCETM PD materials: 3.2 Unit fractions: identifying representing and comparing Learn to name and write unit fractions. Recognise and show unit fractions of areas, lengths and quantities. Relate numerators and denominators to parts and wholes; explore how the greater the denominators, the smaller the unit fraction.	
Week 5 – Summer 1 Week 1 – Summer 2	• Teaching point 1: A whole can be divided into any number of equal parts. • Teaching point 2: Fraction notation can be used to describe an equal part of the whole. One equal part of a whole is called a unit fraction. Each unit fraction has a name. • Teaching point 3: Fractional notation can be applied to represent one part of a whole in different contexts. • Teaching point 4: Equal parts do not need to look the same. • Teaching point 5: Unit fractions can be compared and ordered by looking at the denominator. The greater the denominator, the smaller the fraction. • Teaching point 6: If the size of a unit fraction is known, the size of the whole can be worked out by repeated addition of that unit fraction. Ensure you are satisfied that at the end of the unit children are secure with the Ready to Progress Criteria: 3F-1 Interpret and write proper fractions to represent 1 or several parts of a whole that is divided into equal parts.
NCETM PD materials: 3.3 Non unit fractions: identifying, representing and comparing Learn to name and write non-unit fractions, recognising them as multiples of unit fractions. Learn that fractions are numbers that can	

Year 3 Curriculum Overview- 2023-24

be positioned on a number line. Compare and order fractions with the same denominator or same numerator.

Week 2 and 3

Non-unit fractions

- **Teaching point 1:** All non-unit fractions are made up of more than one of the same unit fraction.
- **Teaching point 2:** Non-unit fractions are written using the same convention as unit fractions. A non-unit fraction has a numerator greater than one.
- **Teaching point 3:** When the numerator and the denominator in a fraction are the same, the fraction is equivalent to one whole.

Fractions as numbers

- **Teaching point 4:** All unit and non-unit fractions are numbers that can be placed on a number line.
- **Teaching point 5:** Repeated addition of a unit fraction results in a non-unit fraction.
- **Teaching point 6:** When the numerator and the denominator are the same, the value of the fraction is one.

Comparing fractions

- **Teaching point 7:** Non-unit fractions with the same denominator can be compared. If the denominators are the same, then the greater the numerator, the greater the fraction.
- **Teaching point 8:** Non-unit fractions with the same numerator can be compared. If the numerators are the same, then the greater the denominator, the smaller the fraction.

Ensure you are satisfied that at the end of the unit children are secure with the Ready to Progress Criteria:
3F-3 Reason about the location of any fraction within 1 in the linear number system.

NCETM PD materials:

3.4 Adding and subtracting within one whole

Year 3 Curriculum Overview- 2023-24

Learn to name and write unit fractions. Recognise and show unit fractions of areas, lengths and quantities. Relate numerators and denominators to parts and wholes; explore how the greater the denominators, the smaller the unit fraction.	
Week 4	• Teaching point 1: When adding fractions with the same denominators, just add the numerators. • Teaching point 2: When subtracting fractions with the same denominators, just subtract the numerators. • Teaching point 3: Addition and subtraction of fractions are the inverse of each other, just as they are for whole numbers. • Teaching point 4: To subtract from one whole, first convert the whole to a fraction where the denominator and numerator are the same. Ensure you are satisfied that at the end of the unit children are secure with the Ready to Progress Criteria: 3F-4 Reason Add and subtract fractions with the same denominator, within 1.
	Ready to Progress Criteria: 3F2- Find unit fractions of quantities using known division facts (multiplication tables fluency).
NCETM PD materials: 2.9 Times tables: 7 and patterns within/ across times tables Build up the seven times table and solve associated multiplication and division problems; explore times table patterns including generalising about the product in terms of odd/even factors, reviewing divisibility rules, and exploring square numbers.	
Week 5	• Teaching point 1: Counting in multiples of seven can be represented by the seven times table. Adjacent multiples of seven have a difference of seven. Facts from the seven times table can be used to solve multiplication and division problems with different structures. • Teaching point 2: When both factors are odd numbers, the product is an odd number; when one factor is an odd number and the other is an even number, the product is an even number; when both factors are even numbers, the product is an even number. • Teaching point 3: When both factors have the same value, the product is called a square number; square numbers can be represented by objects arranged in square arrays. • Teaching point 4: Divisibility rules can be used to find out whether a given number is divisible (to give a whole number) by particular divisors.

Year 3 Curriculum Overview- 2023-24

	Ensure children are confident with the following statement by the end of the unit: • 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 Ensure you are satisfied that at the end of the unit children are secure with the Ready to Progress Criteria: 3MD-1- Apply known multiplication and division facts to solve contextual problems with different structures, including quotitive and partitive division.
Measurement	
Week 6	• measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml) • measure the perimeter of simple 2-D shapes • add and subtract amounts of money to give change, using both £ and p in practical contexts • tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks 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 • know the number of seconds in a minute and the number of days in each month, year and leap year • compare durations of events [for example to calculate the time taken by particular events or tasks].
Statistics – Maths Meetings	
	• interpret and present data using bar charts, pictograms and tables • 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.
	Assessment

Year 3 Curriculum Overview- 2023-24