

Year 3 Maths Overview

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	13
Autumn	Unit 1 Adding and subtracting within 10		Unit 2 Place value			Unit 3 Numbers to 1,000	Unit 3 Numbers to 1,000		Unit 4 Addition and subtraction				
Spring	Unit 4 Addition and subtraction		Unit 5 Multiplication and division			Unit 5 Multiplication and division	Unit 6 Money	Unit 7 Statistics		Unit 8 Length			
Summer	Unit 9 Fractions					Unit 10 Time	Unit 10 Time		Unit 11 Properties of shape		Unit 12 Mass and capacity		

Number	Measurement	Geometry	Statistics
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Year 3 maths curriculum map 2021-22

COVID Recovery Curriculum

NCETM prioritisation curriculum/ NCETM spines/ White Rose SOL/ DFE Ready to Progress criteria have all been used to support the planning, teaching and learning of mathematics.

Rough suggestions are given for the intended length of each unit, but teachers are expected to adjust according to the needs and prior learning of their pupils.

Unit	Unit name	Learning outcomes/ small steps	Links with other resources
1 (2 weeks)	Adding and subtracting across 10 NCETM prioritisation unit 1	(NCETM - unit 1) 1) Pupils add 3 addends 2) Pupils use a 'First.. Then... Now" story to add 3 addends 3) Pupils explain that addends can be added in any order 4) Pupils add 3 addends efficiently 5) Pupils add 3 addends efficiently by finding two addends that total 10 6) Pupils add two numbers that bridge through 10 7) Pupils subtract two numbers that bridge through 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
2 (3 weeks)	Place Value White Rose	1) Pupils will represent numbers to 100 using concrete materials. (Representing numbers to 100) 2) Pupils will use a part-part whole model to explore partitioning and recombining tens and ones to make a total. (Tens and ones) 3) Pupils will explore hundreds. (Hundreds) 4) Pupils will represent numbers to 1,000 using Base 10. (Numbers to 1,000) 5) Pupils will present different 3-digit numbers in various ways. (100s, 10s and 1s) 6) Pupils will present different 3-digit numbers using place value counters (100s, 10s and 1s) 7) Pupils will estimate, work out and write numbers on a number line. (Number line to 1,000)	<ul style="list-style-type: none"> • 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,



		<p>8) Pupils will find 1, 10 and 100 more or less of a given number. (1, 10 and 100 more or less than a given number)</p> <p>9) Pupils will use concrete materials to represent numbers to 1,000. They will use comparative language and symbols to determine which is greatest/ smallest. (Compare objects to 1,000)</p> <p>10) Pupils will learn an efficient method to compare numbers to 1,000. (Compare numbers to 1,000)</p> <p>11) Pupils will explore ordering a set of numbers from smallest to greatest and greatest to smallest, explaining their reasoning throughout. (Order numbers)</p> <p>12) Pupils will use their knowledge of the patterns in the 5 times table to count in steps of 50. (Count in 50s)</p>	<p>including identifying the previous and next multiple of 100 and 10.</p> <ul style="list-style-type: none"> • 1.18 Composition and calculation: three-digit numbers <p>White Rose – Place value unit</p>
<p>3 (3 weeks)</p>	<p>Numbers to 1,000</p> <p>Parts of NCETM prioritisation unit 2</p>	<p>(NCETM - unit 2)</p> <ol style="list-style-type: none"> 1) Pupils use known facts to find multiples of ten that compose 100 2) Pupils will use known facts to find a two-digit number and a one- or two-digit number that compose 100 3) Pupils use known facts to find correct complements to 100 4) Pupils use known facts to find complements to 100 accurately and efficiently 5) Pupils bridge 100 by adding or subtracting a single-digit number 6) Pupils find ten more or ten less than a given number 7) Pupils cross the hundreds boundary when adding and subtracting any two-digit multiple of ten 8) Pupils use known facts to add or subtract multiples of 100 within 1000 9) Pupils write a three-digit multiple of 10 as a multiplication equation 10) Pupils partition three-digit numbers in different ways 11) Pupils use known facts to solve problems involving partitioning numbers 12) Pupils use known facts to add or subtract to/from multiples of 100 in tens 13) Pupils use known facts to add or subtract to/from multiples of 100 in ones 14) Pupils add/subtract multiples of ten bridging 100 15) Pupils add/subtract to/from a three-digit number in ones bridging 100 16) Pupils use knowledge of adding or subtracting to/from three-digit numbers to solve problems 17) Pupils count forwards and backwards in multiples of 2, 20, 5, 50 and 25 18) Pupils use knowledge of counting in multiples of 2, 20, 5, 50 and 25 to solve problems 	<ul style="list-style-type: none"> • 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



<p>4 (7 weeks)</p>	<p>Addition and Subtraction</p> <p>White Rose and NCETM prioritisation unit 4, 5 and 7</p>	<p>(NCETM - unit 4)</p> <p>Manipulating the additive relationship and securing mental calculation</p> <ol style="list-style-type: none"> 1) Pupils add 3 addends 2) Pupils add two 3-digit numbers using adjusting 3) Pupils add a pair of 2- or 3-digit numbers using redistribution 4) Pupils subtract a pair of 2- or 3-digit numbers, bridging a multiple of 10, using partitioning 5) Pupils subtract a pair of 2-digit numbers, crossing a ten or hundreds boundary, by finding the difference between them 6) Pupils subtract a pair of three-digit multiples of 10 within 1000 by finding the difference between them 7) Pupils evaluate the efficiency of strategies for subtracting from a 3-digit number 8) Pupils explain why the order of addition and subtraction steps in a multi-step problem can be chosen 9) Pupils accurately and efficiently solve multi-step addition and subtraction problems 10) Pupils understand and can explain that both addition and subtraction equations can be used to describe the same additive relationship (2-digit numbers) 11) Pupils understand and can explain that both addition and subtraction equations can be used to describe the same additive relationship (3-digit numbers) 12) Pupils use knowledge of the additive relationship to rearrange equations 13) Pupils use knowledge of the additive relationship to identify what is known and what is unknown in an equation 14) Pupils use knowledge of the additive relationship to rearrange equations before solving 15) Pupils rearrange missing number equations and use knowledge of the additive relationship to solve the problem 	<p>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.</p> <p>1.19 Securing mental strategies: calculation up to 999</p> <p>White Rose – Addition and subtraction unit</p>
		<p>(NCETM - unit 5)</p> <p>Column addition</p> <ol style="list-style-type: none"> 1) Pupils identify the addends and the sum in column addition 2) Pupils use their knowledge of place value to correctly lay out column addition 3) Pupils add a pair of 2-digit numbers using column addition 4) Pupils add using column addition 5) Pupils use their knowledge of column addition to solve problems 6) Pupils add a pair of 2-digit numbers using column addition with regrouping in the ones column 7) Pupils add a pair of 2-digit numbers using column addition with regrouping in the tens column 8) Pupils add using column addition with regrouping 9) Pupils use known facts and strategies to accurately and efficiently calculate and check column addition 10) Pupils use their knowledge of column addition to solve problems 	<p>3AS–2 Add and subtract up to three-digit numbers using columnar methods.</p> <p>1.20 Algorithms: column addition</p> <p>White Rose – Addition and subtraction unit</p>



		<p>(NCETM - unit 7)</p> <p>Column subtraction</p> <ol style="list-style-type: none"> 1) Pupils identify the minuend and the subtrahend in column subtraction 2) Pupils explain the column subtraction algorithm 3) Pupils subtract from a 2-digit number using column subtraction with exchanging from tens to ones 4) Pupils subtract from a 3-digit number using column subtraction with exchanging from hundreds to tens (1) 5) Pupils subtract from a 3-digit number using column subtraction with exchanging from hundreds to tens (2) 6) Pupils evaluate the efficiency of strategies for subtraction 	<p>3AS–2 Add and subtract up to three-digit numbers using columnar methods.</p> <p>1.21 Algorithms: column subtraction</p> <p>White Rose – Addition and subtraction unit</p>
<p>5 (4 weeks)</p>	<p>Multiplication and Division - 2, 4, 8 times tables</p> <p>White Rose</p> <p>Cross reference the NCETM spine small steps (prioritisation unit 6) (Do not teach the remaining White Rose units)</p>	<ol style="list-style-type: none"> 1) Pupils will recap their understanding of recognising, making and adding equal groups. (Multiplication (equal groups)) 2) Pupils will use the multiplication symbol alongside repeated addition. (Multiplication using the symbol) 3) Pupils will explore arrays to see the commutativity of multiplication facts. (Using arrays) 4) (2 times-table) 5) (5 times-table) 6) Pupils will divide by sharing objects into equal groups using one-to-one correspondence. (Make equal groups – sharing) 7) Pupils will divide by making equal groups. (Make equal groups – grouping) 8) (Divide by 2) 9) (Divide by 5) 10) (Divide by 10) 11) Building on their knowledge of the 2 times table. Pupils will multiply by 4. (Multiply by 4) 12) Pupils will explore dividing by 4 through sharing into four equal groups and grouping in fours. (Divide by 4) 13) (The 4 times-table) 14) Building on their knowledge of the 4 times table. Pupils will multiply by 8. (Multiply by 8) 15) Pupils will explore dividing by 8 through sharing into eight equal groups and grouping in eights (Divide by 8) 16) (The 8 times-table) 17) Pupils use their knowledge of multiplication and division facts to compare statements using inequality symbols. (Comparing statements) 18) Pupils use known multiplication facts to solve other multiplication problems. (Related calculations). <p>This will continue to be a focus throughout our fluency sessions.</p>	<p>3MD–1 Apply known multiplication and division facts to solve contextual problems with different structures, including quotitive and partitive division.</p> <p>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.</p> <p>3NF–3 Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 10).</p> <p>2.7 Times tables: 2, 4 and 8, and the relationship between them</p> <p>White Rose – Multiplication and division unit</p>
<p>6 (1 week)</p>	<p>Measurement – Money</p> <p>White Rose</p>	<ol style="list-style-type: none"> 1) Pupils will be introduced to the £ and p symbol. They will count in 1p, 2p, 5p, 10p and 20p coins. (Count money – pence) 2) Pupils will count in £1, £2, £5, £10 and £20. (Count money – pounds) 	<p>White Rose – Money unit</p>



		<p>Count money (pence)</p> <p>3) Pupils will learn the value of each coin and note and understand what these values represent. They should understand that money can be represented in different ways but still have the same value. (Pounds and pence)</p> <p>4) Pupils will convert between pounds and pence using the knowledge that £1 is 100 pence. (Convert pounds and pence)</p> <p>5) Pupils add two amounts of money using pictorial representations to support them. (Add money)</p> <p>6) Pupils will use different methods to subtract money. (Subtract money)</p> <p>7) Pupils will use a number line and a part-whole model to subtract to find change. (Give change)</p>	
<p>7 (2 weeks)</p>	<p>Statistics</p> <p>White Rose</p>	<p>1) Pupils are introduced to tally charts as a systematic method of recording data. (Make tally charts)</p> <p>2) Pupils will draw pictograms where the symbols represent 2, 5 or 10 items. (Draw pictograms 2, 5 and 10)</p> <p>3) Pupils interpret pictograms, both horizontally and vertically. (Interpret Pictograms 2, 5 and 10)</p> <p>4) Pupils read and interpret information in order to answer questions about the data. Pupils will construct pictograms and choose an appropriate key.</p> <p>5) Pupils interpret information in pictograms and tally charts in order to construct bar charts. Pupils read and interpret bar charts with scales of 1, 2, 5 and 10. (Bar charts)</p> <p>6) Pupils will interpret information from tables to answer one and two-step problems. (Tables)</p>	<p>White Rose – Statistics unit</p> <p>Cross curricular link with geography/science.</p>
<p>8 (2 weeks)</p>	<p>Measurement - Length</p> <p>White Rose</p> <p>Perimeter will be taught in Year 4.</p>	<p>1) Pupils are introduced to millimetres for the first time and build on their understanding of centimetres and metres. They will use different measuring equipment including rulers, tape measures, metre sticks and trundle wheels. (measuring length)</p> <p>2) Pupils begin to measure larger objects using metres. They think about whether it is better to measure items in centimetres or metres and discuss the reasons why. (measure length in metres)</p> <p>3) Pupils recognise that 100 cm is equivalent to 1 metre. They use this knowledge to convert other multiples of 100 cm into metres and vice versa. When looking at lengths that are not multiples of 100, they partition the measurement and convert into metres and centimetres. (Equivalent lengths - m and cm)</p>	<p>NCETM Prioritisation unit 2 (steps 16-23)</p> <ul style="list-style-type: none"> • 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. <p>White Rose – Length and perimeter unit</p>



		<p>4) Pupils recognise that 10 mm is equivalent to 1 cm. They use this knowledge to convert other multiples of 10 mm into centimetres and vice versa. When looking at lengths that are not multiples of 10, they partition the measurement and convert into centimetres and millimetres. (Equivalent lengths – mm and cm)</p> <p>5) Pupils compare lengths of objects using comparison language and symbols. They use language such as longer than, shorter than, taller than, longest, shortest and tallest. (Compare lengths)</p> <p>6) Pupils compare and order lengths based on measurements in mm, cm and m. They use their knowledge of converting between units of measurement to help them compare and order. (Compare lengths)</p> <p>7) Pupils add lengths given in different units of measurement. They convert measurements to the same unit of length to add more efficiently. (Add lengths)</p> <p>8) Pupils use take-away and finding the difference to subtract lengths. (Subtract lengths)</p>	
<p>9 (5 weeks)</p>	<p>Fractions</p> <p>NCETM prioritisation unit 8 and 9</p>	<p>Unit fractions</p> <ol style="list-style-type: none"> 1) Pupils identify a whole and the parts that make it up 2) Pupils explain why a part can only be defined when in relation to a whole 3) Pupils identify the number of equal or unequal parts in a whole 4) Pupils identify equal parts when they do not look the same (i) 5) Pupils explain the size of the part in relation to the whole 6) Pupils construct a whole when given a part and the number of parts 7) Pupils identify how many equal parts a whole has been divided into 8) Pupils use fraction notation to describe an equal part of the whole 9) Pupils represent a unit fractions in different ways 10) Pupils identify parts and wholes in different contexts (i) 11) Pupils identify parts and wholes in different contexts (ii) 12) Pupils identify equal parts when they do not look the same (ii) 13) Pupils compare and order unit fractions by looking at the denominator 14) Pupils identify when unit fractions cannot be compared 15) Pupils construct a whole when given one part and the fraction that it represents 16) Pupils use knowledge of the relationship between parts and wholes in unit fractions to solve problems 17) Pupils identify the whole, the number of equal parts and the size of each part as a unit fraction 18) Pupils quantify the number of items in each part and connect to the unit fraction operator 19) Pupils calculate the value of a part by using knowledge of division and division facts 20) Pupils calculate the value of a part by connecting knowledge of division and division facts with finding a fraction of a quantity 	<p>3F–1 Interpret and write proper fractions to represent 1 or several parts of a whole that is divided into equal parts.</p> <p>3F–2 Find unit fractions of quantities using known division facts (multiplication tables fluency).</p> <p>3F–3 Reason about the location of any fraction within 1 in the linear number system.</p> <p>3.1 Preparing for fractions: the part–whole relationship</p> <p>3.2 Unit fractions: identifying, representing and comparing</p> <p>White Rose – Fractions unit</p>



		<p>21) Pupils find fractions of quantities using knowledge of division facts with increasing fluency</p>	
		<p>Non unit fractions</p> <ol style="list-style-type: none"> 1) Pupils explain that non-unit fractions are composed of more than one unit fraction 2) Pupils identify non-unit fractions 3) Pupils identify the number of equal or unequal parts in a whole 4) Pupils use knowledge of non-unit fractions to solve problems 5) Pupils use knowledge of unit fractions to find one whole 6) Pupils place fractions between 0 and 1 on a numberline 7) Pupils use repeated addition of a unit fraction to form a non-unit fraction 8) Pupils use repeated addition of a unit fraction to form 1 9) Pupils compare using knowledge of non-unit fractions equivalent to one 10) Pupils compare non-unit fractions with the same denominator 11) Pupils compare unit fractions 12) Pupils compare fractions with the same numerator 13) Pupils add up fractions with the same denominator 14) Pupils add on fractions with the same denominator 15) Pupils add fractions with the same denominator using a generalised rule 16) Pupils subtract fractions with the same denominator 17) Pupils identify the whole, the number of equal parts and the size of each part as a unit fraction 18) Pupils explain that addition and subtraction of fractions are inverse operations 19) Pupils subtract fractions from a whole by converting the whole to a fraction 20) Pupils represent a whole as a fraction in different ways and use this to solve problems involving subtraction 	<p>3F–1 Interpret and write proper fractions to represent 1 or several parts of a whole that is divided into equal parts. 3F–3 Reason about the location of any fraction within 1 in the linear number system. 3F–4 Add and subtract fractions with the same denominator, within 1. 3.3 Non-unit fractions: identifying, representing and comparing 3.4 Adding and subtracting within one whole White Rose – Fractions unit</p>
<p>10 (3 weeks)</p>	<p>Time</p> <p>White Rose</p>	<ol style="list-style-type: none"> 1) Pupils create times using individual clocks with moveable hands. Pupils will read and write times from clocks. (O'clock and half past) 2) Pupils read and draw the times 'quarter to' and 'quarter past'. They use their knowledge of fractions and turns to identify quarter past and quarter to. (Quarter past and quarter to) 3) Pupils explore years using calendars to investigate the number of days in each month. (Months and years) 4) Pupils recap the number of hours in a day and are introduced to language such as 'noon', 'midday', 'midnight'. (Hours in a day) 5) Pupils tell the time to the nearest 5 minutes on an analogue clock. (Telling the time to 5 minutes) 	<p>White Rose – Time unit</p>



		<p>6) Pupils tell time to the nearest minute using an analogue clock. They use the terms 'past' and 'to'. (Telling the time to the minute)</p> <p>7) Pupils use 'morning', 'afternoon', 'a.m.' and 'p.m.' to describe the time of day. (Using a.m. and p.m.)</p> <p>8) Pupils are introduced to telling the time on a 24-hour digital clock for the first time (24-hour clock)</p> <p>9) Pupils find the durations of events using both analogue and digital clocks. (Finding the duration)</p> <p>10) Pupils compare durations of time using analogue and digital clocks. (Comparing durations)</p> <p>11) Pupils find start and end times to the nearest minute using both analogue and digital times. (Start and end times)</p> <p>12) Pupils measure and compare durations of time in seconds. (Measuring time in seconds)</p>	
<p>11 (2 weeks)</p>	<p>Geometry - Properties of shape</p> <p>White Rose</p>	<p>1) Pupils will recognise angles as a measure of a turn. They practice making $\frac{1}{2}$, $\frac{1}{4}$, $\frac{3}{4}$ and whole turns from different starting points in both clockwise and anti-clockwise directions in practical contexts. (Turns and angles)</p> <p>2) Pupils will recognise that a right angle is a quarter turn, 2 right angles make a half-turn, 3 right angles make three-quarters of a turn and 4 right angles make a complete turn. (Right angles in shapes)</p> <p>3) Pupils will identify whether an angle is greater than or less than a right angle in shapes and turns, by measuring, comparing and reasoning in practical contexts.</p> <p>They are introduced to the words 'acute' and 'obtuse' as a way of describing angles. (Compare angles)</p> <p>4) Pupils will measure and draw straight lines accurately in centimetres and millimetres. (Draw accurately)</p> <p>5) Pupils will identify and find horizontal and vertical lines in a range of contexts. (Horizontal and vertical)</p> <p>6) Pupils will identify and find parallel and perpendicular lines in a range of practical contexts. (Parallel and perpendicular)</p> <p>7) Pupils recognise, describe and draw 2-D shapes accurately (Recognise and describe 2-D shapes)</p> <p>8) Pupils recognise and describe 3-D shapes in different orientations. They use properties including the number of faces, edges and vertices to describe the shape. (Recognise and describe 3-D shapes)</p> <p>9) Pupils make 3-D shapes (cubes, cuboids, prisms, cylinders, pyramids, cones, spheres) using construction materials. (Construct 3-D shapes)</p>	<p>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.</p> <p>3G-2 Draw polygons by joining marked points, and identify parallel and perpendicular sides.</p> <p>White Rose – Properties of shape</p>



<p>12 (3 weeks)</p>	<p>Measurement - Mass and Capacity</p> <p>White Rose</p>	<ol style="list-style-type: none"> 1) Pupils compare mass using < and > and order objects based on their masses. (Compare mass) 2) Children learn how to read a range of scales to measure mass, including scales with missing intervals. (Measure mass) 3) Children measure the mass of objects and record them as a mixed measurement in kilograms and grams. (Measure mass) 4) Children build on Year 2 knowledge and use 'lighter' and 'heavier' to compare mass. (Compare mass) 5) Children add and subtract mass. (Add and subtract mass) 6) Children compare the volume of containers using < , > and = (Compare volume) 7) Children use litres, millilitres and standard scales to explore capacity. (Measure capacity) 8) Children use litres and millilitres and standard scales to explore capacity. (Measure capacity) 9) Children continue to build on Year 2 and use 'full' and 'empty' to compare capacity. (Compare capacity) 10) Children add and subtract volumes and capacities. (Add and subtract capacity) 11) Children are introduced to temperature, thermometers and the units 'degrees Centigrade', written °C. (Temperature) 	<p>NCETM Prioritisation unit 2 (steps 46-52) White Rose – Mass and capacity</p>
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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 are White Rose materials](#)

