Year 3/4 yearly overview (2020)

This mixed-age plan follows the same progression as the White Rose Maths mixed age planning, except where divergence improves the alignment of the *Power Maths* lessons. The main aim of these plans is to allow teachers to cover the same topic with both groups more often than with our existing (2019) mixed age plans, which follow the *Power Maths* progression more strictly in each year group.

Note: Shaded colours refer to the strand colours used in the textbooks.

Year 3	Year 4	Number of lessons
Autumn term		**56**
Unit 1: Place value within 1,000 • recognise the place value of each digit in a three-digit number (hundreds, tens, ones) • read and write numbers up to 1,000 in numerals and in words • identify, represent and estimate numbers using different representations • count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number • solve number problems and practical problems involving these ideas	**Unit 1: Place value – 4-digit numbers (1)** • recognise the place value of each digit in a four-digit number (thousands, hundreds, tens and ones) • identify, represent and estimate numbers using different representations • round any number to the nearest 10,100 or 1,000 • count in multiples of 6, 7, 9, 25 and 1,000 • find 1,000 more or less than a given number • order and compare numbers beyond 1,000	**12**

Unit 6: Money	Unit 2: Place value – 4-digit numbers (2)	9
• add and subtract amounts of money to give change, using both £ and p in practical contexts	• find 1,000 more or less than a given number • order and compare numbers beyond 1000 • identify, represent and estimate numbers using different representations • round any number to the nearest 10, 100 or 1,000 • count in multiples of 6, 7, 9, 25 and 1,000 • solve number and practical problems that involve all of the above and with increasingly large positive numbers • count in multiples of 6, 7, 9, 25 and 1,000 • interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero • count backwards through zero to include negative numbers	

Unit 2: Addition and subtraction (1) • add and subtract numbers mentally, including a three-digit number and ones, a three-digit number and tens, a three-digit number and hundreds • solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction • add and subtract numbers with up to three digits formal written methods of columnar addition and subtraction • add and subtract numbers mentally, including a three-digit number and ones, a three-digit number and tens, a three-digit number and hundreds	**Unit 3: Addition and subtraction** • add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction, where appropriate • solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why • round any number to the nearest 10, 100 or 1,000 • estimate and use inverse operations to check answers to a calculation	
Unit 3: Addition and subtraction (2) • add and subtract numbers mentally, including a three-digit number and ones, a three-digit number and tens, a three-digit number and hundreds • solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction • estimate the answer to a calculation and use inverse operations to check answers • add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction	**Unit 12: Money** • estimate, compare and calculate different measures, including money in pounds and pence • solve simple measure and money problems involving fractions and decimals to two decimal places	**24**

• add and subtract numbers mentally, including a three-digit number and ones, a three-digit number and tens, a three-digit number and hundreds		

Unit 8: Length • measure, compare, add and subtract lengths (m/cm/mm), mass (kg/g), volume/capacity (l/ml) • measure the perimeter of simple 2D shapes	**Unit 4: Perimeter** • convert between different units of measure [for example, kilometre to metre, hour to minute] • measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres	**11**
	Unit 7: Area • find the area of rectilinear shapes by counting squares • estimate, compare and calculate different measures, including money in pounds and pence	

Year 3	Year 4	Number of lessons
Spring term		61
Unit 4: Multiplication and division (1) • 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 • recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables • solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which *n* objects are connected to *m* objects	**Unit 5: Multiplication and division (1)** • use place value, known and derived facts to multiply and divide mentally, including multiplying by 0 and 1, dividing by 1, multiplying together three numbers • recall multiplication and division facts for multiplication tables up to 12 × 12 • solve problems involving converting from hours to minutes, minutes to seconds, years to months, weeks to days.	15

Unit 5: Multiplication and division (2)	Unit 6: Multiplication and division (2)	15
• 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 • recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables • solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which *n* objects are connected to *m* objects • solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign	• solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign • multiply two-digit and three-digit numbers by a one-digit number using a formal written layout • recognise and use factor pairs and commutativity in mental calculations • multiply two-digit and three-digit numbers by a one-digit number using a formal written layout • use place value, known and derived facts to multiply and divide mentally, including multiplying by 0 and 1, dividing by 1, multiplying together three numbers • solve problems involving multiplying and adding, including using the distributive law to multiply two-digit numbers by one-digit, integer scaling problems and harder correspondence problems such as *n* objects are connected to *m* objects	

Unit 9: Fractions (1) • recognise and use fractions as numbers; unit fractions and non-unit fractions with small denominators • count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10 • compare and order unit fractions, and fractions with the same denominators • solve problems that involve all of the above	**Unit 8: Fractions (1)** • count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten • recognise and show, using diagrams, families of common equivalent fractions • solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number • add and subtract fractions with the same denominator	**11**

Unit 10: Fractions (2) • recognise and show, using diagrams, equivalent fractions with small denominators • recognise and use fractions as numbers; unit fractions and non-unit fractions with small denominators • add and subtract fractions with the same denominator within one whole [for example, 5/7 + 1/7 = 6/7] • compare and order unit fractions and fractions with the same denominator • solve problems that involve all of the above	**Unit 9: Fractions (2)** • add and subtract fractions with the same denominator • solve problems involving increasingly harder fractions to calculate quantities, and use fractions to divide quantities, including non-unit fractions where the answer is a whole number	**9**

Unit 13: Mass	Unit 10: Decimals (1)	11
• measure, compare, add and subtract lengths (m/cm/mm), mass (kg/g), volume/capacity (l/ml)	• recognise and write decimal equivalents of any number of tenths or hundredths • solve simple measure and money problems involving fractions and decimals to two decimal places • find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths • recognise and write decimal equivalents of any number of tenths or hundredths • count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten	

Year 3	Year 4	Number of lessons
Summer term		**34**
Unit 14: Capacity • measure, compare, add and subtract lengths (m/cm/mm), mass (kg/g), volume/capacity (l/ml)	**Unit 11: Decimals (2)** • recognise and write decimal equivalents of any number of tenths or hundredths • add and subtract fractions with the same denominator • compare numbers with the same number of decimal places up to two decimal places • find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths • round decimals with one decimal place to the nearest whole number • recognise and write decimal equivalents to 1/4, 1/2, 3/4 • solve simple measure and money problems involving fractions and decimals to two decimal places	**7**

Unit 11: Time • know the number of seconds in a minute and the number of days in each month, year and leap year • 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 • tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks • compare durations of events [for example to calculate the time taken for particular events or tasks]	**Unit 13: Time** • Convert between different units of measure [for example, kilometre to metre, hour to minute] **Unit 16: Position and direction** • describe positions on a 2D grid as coordinates in the first quadrant • plot specified points and draw sides to complete a given polygon • describe movements between positions as translations of a given unit to the left/right and up/down	**11**
Unit 7: Statistics • 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	**Unit 14: Statistics** • interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs • solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs	**5**

Unit 12: Angles and properties of shape	Unit 15: Angles and 2D shape	11
- 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 make a complete turn; identify whether angles are greater than or less than a right angle - draw 2D shapes and make 3D shapes using modelling materials; recognise 3D shapes in different orientations and describe them - identify horizontal and vertical lines and pairs of perpendicular and parallel lines	- identify acute and obtuse angles and compare and order angles up to two right angles by size - compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes - identify lines of symmetry in 2D shapes presented in different orientations - complete a simple symmetric figure with respect to a specific line of symmetry	