Year 3 Maths Long Term Map

Autumn	Number **Place value**	Number **Addition and subtraction**	Number **Multiplication and division A**			
Spring	Number **Multiplication and division B**	Measurement **Length and perimeter**	Number **Fractions A**	Measurement **Mass and capacity**		
Summer	Number **Fractions B**	Measurement **Money**	Measurement **Time**	Geometry **Shape**	**Statistics**	Consolidation

White Rose Steps		
Number: Place Value	**Can you…**	**National Curriculum Objectives**
Step 1: Represent numbers to 100	Can you represent numbers to 100?	• Identify, represent and estimate numbers using different representations
Step 2: Partition numbers to 100	Can you partition numbers to 100?	• Recognise the place value of each digit in a 3-digit number (hundreds, tens, ones)
Step 3: Number line to 100	Can you identify or estimate the position of a number on a number line to 100?	• Count from zero in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number • Identify, represent and estimate numbers using different representations
Step 4: Hundreds	Can you explore the structure of hundreds?	• Count from zero in multiples of 4, 8, 50 and 100 • Identify, represent and estimate numbers using different representations • Read and write numbers up to 1,000 in numerals and words
Step 5: Represent numbers to 1,000	Can you represent numbers up to 1,000?	• Read and write numbers up to 1,000 in numerals and words • Identify, represent and estimate numbers using different representations
Step 6: Partition numbers to 1,000	Can you partition numbers to 1,000?	• Read and write numbers up to 1,000 in numerals and in words • Recognise the place value of each digit in a 3-digit number (hundreds, tens, ones)
Step 7: Flexible partitioning of numbers to 1,000	Can you partition numbers to 1,000 in different ways?	
Step 8: Hundreds, tens and ones	Can you explore the structure of 3-digit numbers?	
Step 9: Find 1, 10, 00 more or less	Can you find 1, 10 or 100 more or less than a given number?	• Count from zero 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 3-digit number (hundreds, tens, ones)
Step 10: Number line to 1,000	Can you interpret values on a number line to 1,000?	• Count from zero in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number • Identify, represent and estimate numbers using different representations
Step 11: Estimate on a number line to 1,000	Can you estimate on a number line to 1,000?	
Step 12: Compare numbers to 1,000	Can you compare numbers to 1,000?	• Compare and order numbers up to 1,000
Step 13: Order numbers to 1,000	Can you order numbers to 1,000?	
Step 14: Count in 50s	Can you count in 50s?	• Count from zero in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number
Number: Addition and Subtraction		
Step 1: Apply number bonds within 10	Can you apply number bonds within 10?	• Add and subtract numbers mentally, including: • a 3-digit number and ones

Step 2: Add and subtract 1s	Can you add and subtract 1s?	• a 3-digit number and tens • a 3-digit number and hundreds
Step 3: Add and subtract 10s	Can you add and subtract 10s?	
Step 4: Add and subtract 100s	Can you add and subtract 100s?	
Step 5: Spot the pattern	Can you spot patterns when adding and subtracting 3-digit numbers?	
Step 6: Add 1s across a 10	Can you add 1s across 10?	
Step 7: Add 10s across a 100	Can you add 10s across a 100?	
Step 8: Subtract 1s across a 10	Can you subtract 1s across a 10?	
Step 9: Subtract 10s across a 100	Can you subtract 10s across a 100?	
Step 10: Make connections	Can you make connections when adding and subtracting across 100?	
Step 11: Add two numbers (no exchange)	Can you add two 3-digit numbers?	• Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction • Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction
Step 12: Subtract two numbers (no exchange)	Can you subtract two 3-digit numbers?	
Step 13: Add two numbers (across a 10)	Can you add two numbers across a 10?	
Step 14: Add two numbers (across a 100)	Can you add two numbers across a 100?	
Step 15: Subtract two numbers (across a 10)	Can you subtract two numbers across a 10?	
Step 16: Subtract two numbers (across a 100)	Can you subtract two numbers across a 10?	
Step 17: Add 2-digit and 3-digit numbers	Can you add 2-digit and 3-digit numbers?	
Step 18: Subtract a 2-digit number from a 3-digit number	Can you subtract 2-digit and 3-digit numbers?	
Step 19: Complements to 100	Can you find number bonds to 100?	• Add and subtract numbers mentally, including: • a 3-digit number and ones • a 3-digit number and tens • a 3-digit number and hundreds
Step 20: Estimate answers	Can you estimate answers?	• Estimate the answer to a calculation and use inverse operations to check answers
Step 21: Inverse operations	Can you use the inverse operations?	
Step 22: Make decisions	Can you solve problems involving addition and subtraction?	• Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction
Number: Multiplication and Division A		

Step 1: Multiplication – equal groups	Can you use multiplication to find equal groups?	• Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for 2-digit numbers times 1-digit numbers, using mental and progressing to formal written methods
Step 2: Use arrays	Can you use arrays to explore the connection between repeated addition and multiplication?	• Show that multiplication of two numbers can be done in any order (commutative) and division on one number by another cannot (Y2) • Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for 2-digit numbers times 1-digit numbers, using mental and progressing to formal written methods
Step 3: Multiples of 2	Can you recall multiples of 2?	• Count in steps of 2, 3 and 5 from 0, and in 10s from any number, forward and backward (Y2) • Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers (Y2)
Step 4: Multiples of 5 and 10	Can you recall multiples of 5 and 10?	
Step 5: Sharing and grouping	Can you show division by sharing and grouping numbers?	• Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for 2-digit numbers times 1-digit numbers, using mental and progressing to formal written methods
Step 6: Multiply by 3	Can you multiply by 3?	• Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables • Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for 2-digit numbers times 1-digit numbers, using mental and progressing to formal written methods
Step 7: Divide by 3	Can you divide by 3?	
Step 8: The 3 times-table	Can you recall the 3 times-table?	
Step 9: Multiply by 4	Can you multiply by 4?	
Step 10: Divide by 4	Can you divide by 4?	
Step 11: The 4 times-table	Can you recall the 4 times-table?	
Step 12: Multiply by 8	Can you multiply by 8?	
Step 13: Divide by 8	Can you divide by 8?	
Step 14: The 8 times-table	Can you recall the 8 times-table?	
Step 15: the 3, 4 and 8 times-table	Can you recall the 3, 4 and 8 times-table?	
Number: Multiplication and Division B		
Step 1: Multiples of 10	Can you recall multiples of 10?	• Recall and use multiplication facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers (Y2)
Step 2: Related calculations	Can you explore related calculations using multiplication facts?	• Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for 2-digit numbers times 1-digit numbers, using mental and progressing to formal written methods
Step 3: Reasoning about multiplication	Can you reason about multiplication?	

Step 4: Multiply a 2-digit number by a 1-digit number – no exchange	Can you multiply a 2-digit number by a 1-digit number	
Step 5: Multiply a 2-digit number by a 1-digit number – with exchange	Can you multiply a 2-digit number by a 1-digit number with exchange?	
Step 6: Link multiplication and division	Can you link multiplication and division?	• 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
Step 7: Divide a 2-digit number by a 1-digit number – no exchange	Can you divide a 2-digit number by a 1-digit number?	• Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for 2-digit numbers times 1-digit numbers, using mental and progressing to formal written methods
Step 8: Divide a 2-digit number by a 1-digit number – flexible partitioning	Can you divide a 2-digit number by a 1-digit number with partitioning?	
Step 9: Divide a 2-digit number by a 1-digit number – with remainders	Can you divide a 2-digit number by a 1-digit number with remainders?	
Step 10: Scaling	Can you solve integer scaling problems?	• 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
Step 11: How many ways?	Can you solve problems involving multiplication and division?	
Measurement: Length and Perimeter		
Step 1: Measure in metres and centimetres	Can you measure in metres and centimetres?	• Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)
Step 2: Measure in millimetres	Can you measure in millimetres?	
Step 3: Measure in centimetres ad millimetres	Can you measure in centimetres ad millimetres?	
Step 4: Metres, centimetres and millimetres	Can you measure in metres, centimetres and millimetres?	
Step 5: Equivalent lengths (metres and centimetres)	Can you find equivalent lengths between metres and centimetres?	
Step 6: Equivalent lengths (centimetres and millimetres)	Can you find equivalent lengths between centimetres and millimetres?	
Step 7: Compare lengths	Can you compare various lengths?	
Step 8: Add lengths	Can you add various lengths?	
Step 9: Subtract lengths	Can you subtract various lengths?	
Step 10: What is perimeter?	Can you identify the perimeter of simple 2-D shapes?	• Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml) • Measure the perimeter of simple 2-D shapes
Step 11: Measure perimeter	Can you measure the perimeter of simple 2-D shapes?	

Step 12: Calculate perimeter	Can you calculate the perimeter of simple 2-D shapes?	
Number: Fractions A		
Step 1: Understand the denominator of unit fractions	Can you understand the denominator of unit fractions?	• Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators
Step 2: Compare and order unit fractions	Can you compare and order unit fractions?	• Compare and order unit fractions, and fractions with the same denominators
Step 3: Understand the numerous of non-unit fractions	Can you understand the numerous of non-unit fractions?	• Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators
Step 4: Understand the whole	Can you understand the whole?	
Step 5: Compare and order non-unit fractions	Can you compare and order non-unit fractions?	• Compare and order unit fractions, and fractions with the same denominators
Step 6: Fractions and scales	Can you recognise and use fractions by interpreting scales?	• Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators • Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)
Step 7: Fractions on a number line	Can you recognise fractions on a number line?	• Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators
Step 8: Count in fractions on a number line	Can you count in fractions on a number line?	
Step 9: Equivalent fractions on a number line	Can you find equivalent fractions on a number line?	• Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators • Recognise and show, using diagrams, equivalent fractions with small denominators
Step 10: Equivalent fractions as bar models	Can you find equivalent fractions as bar models?	
Measurement: Mass and Capacity		
Step 1: Use scales	Can you use scales to explore kilograms and grams?	• Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)
Step 2: Measure mass in grams	Can you measure mass in grams?	
Step 3: Measure mass in kilograms and grams	Can you measure mass in kilograms and grams?	
Step 4: Equivalent masses (kilograms and grams)	Can you find equivalent masses?	
Step 5: Compare mass	Can you compare mass?	
Step 6: Add and subtract mass	Can you add and subtract mass?	
Step 7: Measure capacity and volume in millilitres	Can you measure capacity and volume in millilitres?	
Step 8: Measure capacity and volume in litres and millilitres	Can you measure capacity and volume in litres and millilitres?	

Step 9: Equivalent capacities and volumes (litres and millilitres)	Can you find equivalent capacities and volumes (litres and millilitres)?	
Step 10: Compare capacity and volume	Can you compare capacity and volume?	
Step 11: Add and subtract capacity and volume	Can you add and subtract capacity and volume?	
Number: Fractions B		
Step 1: Add fractions	Can you add fractions with the same denominator within one whole?	• Add and subtract fractions with the same denominator within one whole
Step 2: Subtract fractions	Can you subtract fractions with the same denominator within one whole?	
Step 3: Partition the whole	Can you partition the whole?	
Step 4: Unit fractions of a set of objects	Can you find unit fractions of a set of objects?	• Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators
Step 5: Non-unit fractions of a set of objects	Can you find non-unit fractions of a set of objects?	
Step 6: Reasoning with fractions of an amount	Can you reason with fractions of an amount?	
Measurement: Money		
Step 1: Pounds and pence	Can you identify pounds and pence?	• Add and subtract amounts of money to give change, using both £ and p in practical contexts
Step 2: Convert pounds and pence	Can you convert between pounds and pence?	
Step 3: Add money	Can you add money using both pound and pence?	
Step 4: Subtract money	Can you subtract money using both pound and pence?	
Step 5: Find change	Can you find change using both pound and pence?	
Measurement: Time		
Step 1: Roman numerals to 12	Can you tell the time using roman numerals to 12?	• Tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks
Step 2: Tell the time to 5 minutes	Can you tell the time to 5 minutes?	
Step 3: Tell the time to the minute	Can you tell the time to the minute?	• 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, am/pm, morning, afternoon, noon and midnight
Step 4: Read time on a digital clock	Can you read time on a digital clock?	
Step 5: Use a.m. and p.m.	Can you tell the time using a.m. and p.m.?	
Step 6: Years, months and days	Can you identify the number in years, months and days?	• Know the number of seconds in a minute and the number of days in each month, year and leap year

Step 7: Days and hours	Can you identify the number in days and hours?	• 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, am/pm, 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
Step 8: Hours and minutes – use start and end times	Can you compare durations of events using start and end times?	• 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
Step 9: Hours and minutes – use durations	Can you compare durations of events using hours and minutes?	
Step 10: Minutes and seconds	Can you explore between minutes and seconds?	• Know the number of seconds in a minute and the number of days in each month, year and leap year • Compare durations of events • 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, am/pm, morning, afternoon, noon and midnight
Step 11: Units of time	Can you estimate and read units of time?	
Step 12: Solve problems with time	Can you solve problems involving time?	• Tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks • Know the number of seconds in a minute and the number of days in each month, year and leap year • Compare durations of events • 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, am/pm, morning, afternoon, noon and midnight
Geometry: Shape		
Step 1: Turns and angles	Can you recognise turns and angles?	• Recognise angles as a property of shape or a description of a turn
Step 2: Right angles	Can you identify right angles?	• 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
Step 3: Compare angles	Can you compare various angles?	
Step 4: Measure and draw accurately	Can you measure and draw 2-D shapes accurately?	• Measure the perimeter of simple 2-D shapes • Draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them

		• Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)
Step 5: Horizontal and vertical	Can you identify horizontal and vertical lines?	• Identify horizontal and vertical lines and pairs of perpendicular and parallel lines
Step 6: Parallel and perpendicular	Can you identify pairs of perpendicular and parallel lines?	
Step 7: Recognise and describe 2-D shapes	Can you recognise and describe 2-D shapes?	• Draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them
Step 8: Draw polygons	Can you draw polygons?	
Step 9: Recognise and describe 3-D shapes	Can you recognise and describe 3-D shapes?	
Step 10: Make 3-D shapes	Can you make 3-D shapes?	
Statistics		
Step 1: Interpret pictograms	Can you interpret pictograms?	• Interpret and present data using bar charts, pictograms and tables • Solve one-step and two-step questions using information presented in scaled bar charts and pictograms and tables
Step 2: Draw pictograms	Can you draw pictograms?	
Step 3: Interpret bar charts	Can you interpret bar charts?	
Step 4: Draw bar charts	Can you draw bar charts?	
Step 5: Collect and represent data	Can you collect and represent data?	
Step 6: Two-way tables	Can you solve problems involving two-way tables?	
Consolidation		