Year 3 Maths Medium Term Plans

Autumn

Unit A1 | 2 weeks | Number – place value, addition and subtraction	
Weeks 1&2	**Learning Objectives**
	Strand: Using and applying mathematics
	• Describe and explain methods, choices and solutions to puzzles and problems, orally and in writing, using pictures and diagrams – including missing number problems, using number facts, place value and more complex addition and subtraction
	Strand: Number and Place Value
	• Read, write and order whole numbers to at least 1000 numbers and in words and position them on a number line; count on from and back to zero in single-digit steps or 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 three digit number (hundreds, tens, ones)
	Strand: Number Addition and Subtraction
	• Derive and recall all addition and subtraction facts for each number to 20, sums and differences of multiples of 10 and number pairs that total 100
	• Add or subtract mentally combinations of one-digit and two-digit numbers including a three-digit number and ones, a three digit number and tens, a three digit number and hundreds

Unit B1 | 3 weeks | Number, Geometry	
Weeks 3-5	**Learning Objectives**
	Strand: Using and applying mathematics
	• Represent the information in a puzzle or problem using numbers, images or diagrams; use these to find a solution and present it in context, where appropriate using £.p notation or units of measure
	• Add and subtract amounts of money to give change, using both £ and p in practical contexts
	• Identify patterns and relationships involving numbers or shapes, and use these to solve problems
	Strand: Number - addition and subtraction; multiplication and division
	• Derive and recall all addition and subtraction facts for each number to 20, sums and differences of multiples of 10 and number pairs that total 100 (now taught in Year 2)
	• Add or subtract mentally combinations of one-digit and two-digit numbers including a three-digit number and ones, a three digit number and tens, a three digit number and hundreds
	• Estimate the answer to a calculation and use inverse operations to check answers
	• Derive and recall multiplication facts for the 2, 3, 4, 5, 6 and 8 and 10 times tables and the corresponding division facts; recognise multiples of 2, 5 or 10 up to 1000
	• Use knowledge of number operations and corresponding inverses, including doubling and halving, to estimate and check calculations
	Strand: Geometry
	• Relate 2-D shapes and 3-D solids to drawings of them; describe, visualise, classify, draw and make the shapes
	• 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

Unit C1 | 2 weeks | Statistics and measurement	
Weeks 6-7	**Learning Objectives**
	Strand: Using and applying mathematics
	• Follow a line of enquiry by deciding what information is important; make and use lists, tables and graphs to organise and interpret the information
	Strand: Measurement
	• Know the relationships between kilometres and metres, metres and centimetres and millimetres, kilograms and grams, litres and millilitres; choose and use appropriate units to estimate, measure and record measurements
	• Measure the perimeter of simple 2D shapes
	• Read, to the nearest division and half-division, scales that are numbered or partially numbered; use the information to measure and draw to a suitable degree of accuracy
	Strand: Statistics
	• Solve one step and two steps questions by collecting, organising and interpreting data; use tally charts, frequency tables, pictograms and scaled bar charts to represent results and illustrate observations; use ICT to create a simple bar chart

Unit D1	2 weeks	Number – addition and subtraction; fractions; measurement and geometry	
Weeks 8-9	**Learning Objectives**
	Strand: Using and applying mathematics
	• Solve one-step and two-step problems involving numbers, money (£ and p) or measures, including time, choosing and carrying out appropriate calculations
	• Add and subtract amounts of money to give change, using both £ and p in practical contexts
	Strand: Number – addition and subtraction, fractions
	• Add or subtract mentally combinations of one-digit and two-digit numbers 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
	• Find unit fractions of numbers and quantities (e.g. $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$ and $\frac{1}{6}$ of 12 litres) and non-unit fractions with small denominators
	Strand: Geometry
	• Relate 2-D shapes and 3-D solids to drawings of them; describe, visualise, classify, draw and make the shapes
	• 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
	Strand: Measurement
	• Know the relationships between kilometres and metres, metres and centimetres and millimetres, kilograms and grams, litres and millilitres; choose and use appropriate units to estimate, measure and record measurements
	• Measure the perimeter of simple 2D shapes
	• Read, to the nearest division and half-division, scales that are numbered or partially numbered; use the information to measure and draw to a suitable degree of accuracy
	• Read the time on a 12-hour digital clock and to the nearest 5 minutes on an analogue clock; calculate time intervals and find start or end times for a given time interval Tell and write the time from an analogue clock, including using Roman numerals 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, hours and o'clock; use vocabulary such as am and 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

	• Compare durations of events for example to calculate the time taken by particular events or tasks

Unit E1	3 weeks	Number – place value; multiplication and division, fractions	

Weeks 10-12	**Learning Objectives**
	Strand: Using and applying mathematics
	• Follow a line of enquiry by deciding what information is important; make and use lists, tables and graphs to organise and interpret the information
	• Identify patterns and relationships involving numbers or shapes, and use these to solve problems
	Strand: Number – addition and subtraction; multiplication and division
	• Derive and recall all addition and subtraction facts for each number to 20, sums and differences of multiples of 10 and number pairs that total 100 (now taught in Year 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
	• Derive and recall multiplication facts for the 2, 3, 4, 5, 6, and 8 and 10 times tables and the corresponding division facts; recognise multiples of 2, 5 or 10 up to 1000
	Strand: Number – multiplication and division, fractions
	• Use practical and informal written methods to multiply and divide two-digit numbers (e.g. 13×3, $50 \div 4$); round remainders up or down, depending on the context
	• Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two digit numbers, using mental methods and progressing to formal written methods
	• Solve problems including missing number problems, involving multiplication and division, including integer scaling problems and correspondence problems in which *n* objects are connected to *m* objects
	• Find unit fractions of numbers and quantities (e.g. $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$ and $\frac{1}{6}$ of 12 litres) and non-unit fractions with small denominators

SPRING

Unit A2 | 2 weeks | Number – place value; multiplication and division; addition and subtraction	
Weeks 1-2	**Learning Objectives**
	Strand: Using and applying mathematics
	• Describe and explain methods, choices and solutions to puzzles and problems, orally and in writing, using pictures and diagrams
	Strand: Number and place value
	• Partition three-digit numbers into multiples of 100, 10 and 1 in different ways • Recognise the place value of each digit in a three digit number (hundreds, tens, ones)
	• Round (moved to year 4) two-digit or three-digit numbers to the nearest 10 or 100 and give estimates for their sums and differences, using inverse operations to check answers
	Strand: Number – addition and subtraction; multiplication and division
	• Derive and recall all addition and subtraction facts for each number to 20, sums and differences of multiples of 10 and number pairs that total 100 (now taught in Year 2)
	• Derive and recall multiplication facts for the 2, 3, 4, 5, 6, and 8 and 10 times tables and the corresponding division facts; recognise multiples of 2, 5 or 10 up to 1000
	• Add or subtract mentally including including a three-digit number and ones, a three digit number and tens, a three digit number and hundreds
	• Multiply one-digit and two-digit numbers by 10 or 100, and describe the effect

Unit B2 | 3 weeks | Number: multiplication and division, geometry	
Weeks 3-5	**Learning Objectives**
	Strand: Using and applying mathematics
	• Solve one-step and two-step problems involving numbers, money or measures, including time, choosing and carrying out appropriate calculations
	• Represent the information in a puzzle or problem using numbers, images or diagrams; use these to find a solution and present it in context, where appropriate using £.p notation or units of measure
	• Identify patterns and relationships involving numbers or shapes, and use these to solve problems
	Strand: Number - fractions
	• Read and write proper fractions (e.g. $\frac{3}{7}$, $\frac{9}{10}$), interpreting the denominator as the parts of a whole and the numerator as the number of parts; identify and estimate fractions of shapes; use diagrams to compare fractions and establish equivalents
	• Count up and down in tenths, recognise that tenths arise from dividing and object into 10 equal parts and in dividing one digit numbers or quantities by 10
	• 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
	• Add and subtract fractions with the same denominator within one whole (eg 5/7 + 1/7 = 6/7)
	• Compare and order unit fractions and fractions with the same denominators
	• Solve problems that involve all of the above
	Strand: Number – multiplication and division
	• Derive and recall multiplication facts for the 2, 3, 4, 5, 6 and 8 and 10 times tables and the corresponding division facts; recognise multiples of 2, 5 or 10 up to 1000
	Strand: Understanding shape
	• Relate 2-D shapes and 3-D solids to drawings of them; describe, visualise, classify, draw and make the shapes
	• 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
Unit C2 | 2 weeks | Statistics and measurement	
Weeks 6-7	**Learning Objectives**
	Strand: Using and applying mathematics
	• Follow a line of enquiry by deciding what information is important; make and use lists, tables and graphs to organise and interpret the information
	Strand: Measurement
	• Know the relationships between kilometres and metres, metres and centimetres and millimetres, kilograms and grams, litres and millilitres; choose and use appropriate units to estimate, measure and record measurements • Measure the perimeter of simple 2D shapes
	• Read, to the nearest division and half-division, scales that are numbered or partially numbered; use the information to measure and draw to a suitable degree of accuracy
	• Read the time on a 12-hour digital clock and to the nearest 5 minutes on an analogue clock; calculate time intervals and find start or end times for a given time interval Tell and write the time from an analogue clock, including using Roman numerals 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, hours and o'clock; use vocabulary such as am and 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 • Compare durations of events for example to calculate the time taken by particular events or tasks
	Strand: Statistics
	• Answer a question by collecting, organising and interpreting data; use tally charts, frequency tables, pictograms and bar charts to represent results and illustrate observations
	• Solve one step and two step questions (How many more? How many fewer?) using information presented in scaled bar charts and pictograms and tables

Unit D2 | 2 weeks | Number – addition and subtraction; multiplication and division, and geometry	
Weeks 8-9	**Learning Objectives**
	Strand: Using and applying mathematics
	• Represent the information in a puzzle or problem using numbers, images or diagrams; use these to find a solution and present it in context, where appropriate using £.p notation or units of measure • Add and subtract amounts of money to give change, using both £ and p in practical contexts
	Strand: Number – Addition and subtraction, multiplication and division, fractions
	• Add or subtract mentally combinations of one-digit and two-digit numbers including a three-digit number and ones, a three digit number and tens, a three digit number and hundreds
	• Develop and use written methods to record, support or explain addition and subtraction of three –digit and three-digit numbers (using formal written methods of columnar addition and subtraction)
	• Use practical and informal written methods to multiply and divide two-digit numbers (e.g. 13 × 3, 50 ÷ 4); round remainders up or down, depending on the context – using mental methods and progressing to formal written methods
	• Find unit fractions of numbers and quantities (e.g. $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$ and $\frac{1}{6}$ of 12 litres) and non unit fractions with small denominators
	Strand: Geometry
	• Read and record the vocabulary of position, direction and movement, using the four compass directions to describe movement about a grid • 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
	• Use a set-square to draw right angles and to identify right angles in 2-D shapes; compare angles with a right angle; recognise that a straight line is equivalent to two 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 • Identify horizontal and vertical lines and pairs of perpendicular and parallel lines
	Strand: Measurement
	• Know the relationships between kilometres and metres, metres and centimetres and millimetres, kilograms and grams, litres and millilitres; choose and use

	appropriate units to estimate, measure and record measurements • Measure the perimeter of simple 2D shapes

Unit E2 | 3 weeks |Number – fractions; multiplication and division	
Weeks 10-12	**Learning Objectives**
	Strand: Using and applying mathematics
	• Solve one-step and two-step problems involving numbers, money or measures, including time, choosing and carrying out appropriate calculations
	Strand: Number - fractions
	• Read and write proper fractions (e.g. $\frac{3}{7}$, $\frac{9}{10}$), interpreting the denominator as the parts of a whole and the numerator as the number of parts; identify and estimate fractions of shapes; use diagrams to compare fractions and establish equivalents • Count up and down in tenths, recognise that tenths arise from dividing and object into 10 equal parts and in dividing one digit numbers or quantities by 10 • 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 • Add and subtract fractions with the same denominator within one whole (eg 5/7 + 1/7 = 6/7) • Compare and order unit fractions and fractions with the same denominators • Solve problems that involve all of the above
	Strand: Knowing and using number facts
	• Derive and recall multiplication facts for the 2, 3, 4, 5, 6 and 8 and 10 times tables and the corresponding division facts; recognise multiples of 2, 5 or 10 up to 1000
	Strand: Number – multiplication and division
	• Multiply one-digit and two-digit numbers by 10 or 100, and describe the effect
	• Use practical and informal written methods to multiply and divide two-digit numbers (e.g. 13 × 3, 50 ÷ 4); round remainders up or down, depending on the context; using mental methods and progressing to formal written methods
	• Understand that division is the inverse of multiplication and vice versa; use this to derive and record related multiplication and division number sentences
	• Solve problems including missing number problems involving multiplication and division, including integer scaling problems and correspondence problems in which *n* objects are connected to *m* objects
	• Find unit fractions of numbers and quantities (e.g. $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$ and $\frac{1}{6}$ of 12

	litres) and non unit fractions with small denominators

SUMMER

Unit A3	2 weeks Number- place value, addition and subtraction; multiplication and division	
Weeks 1-2	**Learning Objectives**
	Strand: Using and applying mathematics
	• Solve one-step and two-step problems involving numbers, money or measures, including time, choosing and carrying out appropriate calculations
	Strand: Number - Place Value
	• Round two-digit or three-digit numbers to the nearest 10 or 100 and give estimates for their sums and differences using inverse operations to check answers
	• Derive and recall multiplication facts for the 2, 3, 4, 5, 6 and 8 and 10 times tables and the corresponding division facts; recognise multiples of 2, 5 or 10 up to 1000
	Strand: Number – Addition and Subtraction, Multiplication and Division
	• Add or subtract mentally combinations of one-digit and two-digit numbers including a three-digit number and ones, a three digit number and tens, a three digit number and hundreds
	• Develop and use written methods to record, support or explain addition and subtraction of two-digit add three-digit numbers
	• Use practical and informal written methods to multiply and divide two-digit numbers (e.g. 13 × 3, 50 ÷ 4); round remainders up or down, depending on the context progressing to formal written methods

Unit B3 | 3 weeks | Number- addition and subtraction, fractions, multiplication and division, geometry

Weeks 3-5	Learning Objectives
	Strand: Using and applying mathematics
	• Solve one-step and two-step problems involving numbers, money or measures, including time, choosing and carrying out appropriate calculations
	• Represent the information in a puzzle or problem using numbers, images or diagrams; use these to find a solution and present it in context, where appropriate using £.p notation or units of measure
	• Identify patterns and relationships involving numbers or shapes, and use these to solve problems
	Strand: Number - fractions
	• Read and write proper fractions (e.g. $\frac{3}{7}$, $\frac{9}{10}$), interpreting the denominator as the parts of a whole and the numerator as the number of parts; identify and estimate fractions of shapes; use diagrams to compare fractions and establish equivalents
	• Count up and down in tenths, recognise that tenths arise from dividing and object into 10 equal parts and in dividing one digit numbers or quantities by 10
	• 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
	• Add and subtract fractions with the same denominator within one whole (eg 5/7 + 1/7 = 6/7)
	• Compare and order unit fractions and fractions with the same denominators
	• Solve problems that involve all of the above
	Strand: Number – addition and subtraction, multiplication and division
	• Derive and recall all addition and subtraction facts for each number to 20, sums and differences of multiples of 10 and number pairs that total 100 (taught in year 2)
	• Derive and recall multiplication facts for the 2, 3, 4, 5, 6 and 8 and 10 times tables and the corresponding division facts; recognise multiples of 2, 5 or 10 up to 1000
	• Use knowledge of number operations and corresponding inverses, including doubling and halving, to estimate and check calculations
	Strand: Geometry
	• Relate 2-D shapes and 3-D solids to drawings of them; describe, visualise, classify, draw and make the shapes
	• Use a set-square to draw right angles and to identify right angles in 2-D shapes; compare angles with a right angle; recognise that a straight line is equivalent to two 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
	• Identify horizontal and vertical lines and pairs of perpendicular and parallel lines

Unit C3 | 2 weeks | Statistics and measurement	
Weeks 6-7	**Learning Objectives**
	Strand: Using and applying mathematics
	• Follow a line of enquiry by deciding what information is important; make and use lists, tables and graphs to organise and interpret the information
	• Describe and explain methods, choices and solutions to puzzles and problems, orally and in writing, using pictures and diagrams
	Strand: Measurement
	• Know the relationships between kilometres and metres, metres and centimetres and millimetres, kilograms and grams, litres and millilitres; choose and use appropriate units to estimate, measure and record measurements • Measure the perimeter of simple 2D shapes
	• Read, to the nearest division and half-division, scales that are numbered or partially numbered; use the information to measure and draw to a suitable degree of accuracy
	Strand: Statistics
	• Answer a question by collecting, organising and interpreting data; use tally charts, frequency tables, pictograms and bar charts to represent results and illustrate observations • Solve one step and two step questions (How many more? How many fewer?) using information presented in scaled bar charts and pictograms and tables

Unit D3 | 2 weeks | Number – addition and subtraction, multiplication and division, measurement and geometry	
Weeks 8-9	**Learning Objectives**
	Strand: Using and applying mathematics
	• Solve one-step and two-step problems involving numbers, money or measures, including time, choosing and carrying out appropriate calculations
	Strand: Number – Addition and Subtraction, Multiplication and Division
	• Use knowledge of number operations and corresponding inverses, including doubling and halving, to estimate and check calculations
	• Develop and use written methods to record, support or explain addition and subtraction of two-digit and three-digit numbers
	• Use practical and informal written methods to multiply and divide two-digit numbers (e.g. 13 × 3, 50 ÷ 4); round remainders up or down, depending on the context progressing to formal written methods
	• Understand that division is the inverse of multiplication and vice versa; use this to derive and record related multiplication and division number sentences
	• Solve problems including missing number problems involving multiplication and division, including integer scaling problems and correspondence problems in which *n* objects are connected to *m* objects
	Strand: Geometry
	• Use a set-square to draw right angles and to identify right angles in 2-D shapes; compare angles with a right angle; recognise that a straight line is equivalent to two 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
	• Identify horizontal and vertical lines and pairs of perpendicular and parallel lines
	Strand: Measurement
	• Read, to the nearest division and half-division, scales that are numbered or partially numbered; use the information to measure and draw to a suitable degree of accuracy
	• Read the time on a 12-hour digital clock and to the nearest 5 minutes on an analogue clock; calculate time intervals and find start or end times for a given time interval. Tell and write the time from an analogue clock, including using Roman numerals 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, hours and o'clock; use vocabulary such as am and 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 • Compare durations of events for example to calculate the time taken by particular events or tasks
Unit E3 | 3 weeks | Number- place value, addition and subtraction, multiplication and division	
Weeks 10-12	**Learning Objectives**
	Strand: Using and applying mathematics
	• Solve one-step and two-step problems involving numbers, money or measures, including time, choosing and carrying out appropriate calculations
	• Follow a line of enquiry by deciding what information is important; make and use lists, tables and graphs to organise and interpret the information
	• Identify patterns and relationships involving numbers or shapes, and use these to solve problems
	Strand: Counting and understanding number
	• Partition three-digit numbers into multiples of 100, 10 and 1 in different ways • Recognise the place value of each digit in a three digit number (hundreds, tens, ones)
	• Read and write proper fractions (e.g. $\frac{3}{7}$, $\frac{9}{10}$), interpreting the denominator as the parts of a whole and the numerator as the number of parts; identify and estimate fractions of shapes; use diagrams to compare fractions and establish equivalents • Count up and down in tenths, recognise that tenths arise from dividing and object into 10 equal parts and in dividing one digit numbers or quantities by 10 • 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 • Add and subtract fractions with the same denominator within one whole (eg 5/7 + 1/7 = 6/7) • Compare and order unit fractions and fractions with the same denominators • Solve problems that involve all of the above
	Strand: Number – addition and subtraction, multiplication and division
	• Derive and recall multiplication facts for the 2, 3, 4, 5, 6 and 8 and 10 times tables and the correspondingdivision facts; recognise multiples of 2, 5 or 10 up to 1000
	• Develop and use written methods to record, support or explain addition and subtraction of two-digit and three-digit numbers

	• Use practical and informal written methods to multiply and divide two-digit numbers (e.g. 13 × 3, 50 ÷ 4); round remainders up or down, depending on the context, progressing to formal written methods
	• Find unit fractions of numbers and quantities (e.g. $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$ and $\frac{1}{6}$ of 12 litres) and non-unit fractions with small denominators