Busy Ant Maths Year 3 Medium-Term Plan 2023-2024

Unit 1 **Number – Number and place value**
Number – Addition and subtraction
Geometry – Properties of shape

National Curriculum attainment targets Pupils should be taught to:	**Lesson objectives** Pupils will be taught to:	**Lesson**
Number – Number and place value	**Week 1**	
• recognise the place value of each digit in a three-digit number (hundreds, tens, ones) • compare and order numbers up to 1000 • read and write numbers up to 1000 in numerals • solve number problems and practical problems involving these ideas	• Consolidate recognising the place value of each digit in a two-digit number (tens, ones) • Represent numbers using Base 10 material	1
	• Consolidate partitioning two-digit numbers in varied ways • Represent numbers using Base 10 material	2
	• Recognise the place of value of each digit in a three-digit number (hundreds, tens, ones) • Represent numbers using Base 10 material • Read and write numbers up to 1000 in numerals	3
	• Compare and order numbers up to 1000 • Solve number problems and reason mathematically	4
Number – Addition and subtraction	**Week 2**	
• practise solving varied addition and subtraction questions. For mental calculations with two-digit numbers, the answers could exceed 100. * • add and subtract numbers mentally, including: – a three-digit number and ones – a three-digit number and tens	• Add mentally two, two-digit numbers	1
	• Add mentally a three-digit number and ones • Add mentally a three-digit number and tens	2
	• Subtract mentally two, two-digit numbers	3
	• Subtract mentally a three-digit number and ones • Subtract mentally a three-digit number and tens	4
Geometry – Properties of shape	**Week 3**	
• make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them	• Recognise and name 3-D shapes lying in any position	1
	• Make models of 3-D shapes using straws and 2-D shapes	2
	• Use properties to classify and describe 3-D shapes	3
	• Build 3-D shapes with cubes	4

Unit 2 **Number – Multiplication and division, including Number and place value**
Number – Fractions
Measurement (mass)

National Curriculum attainment targets Pupils should be taught to:	**Lesson objectives** Pupils will be taught to:	**Lesson**
Number – Multiplication and division	**Week 1**	
• recall and use multiplication and division facts for the 3 multiplication table • 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	• Count on and back in multiples of 2, 3, 5 and 10 • Find 10 more or less than a given number	1
	• Consolidate multiplication and division facts for the 2, 5 and 10 multiplication tables • Solve problems involving multiplication and division facts of the 2, 5 and 10 multiplication tables and reason mathematically	2
Number – Number and place value	• Recall the multiplication and division facts for the 3 multiplication table	3
• find 10 more or less than a given number	• Use known number facts and place value to derive multiplication facts for the 2, 3 and 5 multiplication tables involving multiples of 10, e.g. 40 x 3 = 120 • Solve problems involving multiplication and division facts of the 3 multiplication table and reason mathematically	4
Number – Fractions	**Week 2**	
• recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators • add fractions with the same denominator within one whole [for example, $\frac{5}{7}+\frac{1}{7}=\frac{6}{7}$] • solve problems that involve all of the above	• Recognise, find and write unit fractions of a set of objects	1
	• Recognise, find and write unit fractions of a set of objects • Solve fraction problems and reason mathematically	2
	• Recognise, find and write non-unit fractions of a set of objects • Solve fraction problems and reason mathematically	3
	• Add fractions with the same denominator	4
Measurement (mass)	**Week 3**	
• measure, compare, add and subtract mass (kg/g)	• Know the equivalent of $\frac{1}{2}$, $\frac{1}{4}$ and $\frac{3}{4}$ of 1 kilogram in grams	1
	• Read scales marked in kilograms and in grams	2
	• Measure and compare mass; use simple scaling of quantities and equivalents of mixed units	3
	• Add and subtract mass using mixed units	4

* Notes and guidance (non-statutory)

Unit 3 **Number – Addition and subtraction**
Geometry – Properties of shape

National Curriculum attainment targets Pupils should be taught to:	**Lesson objectives** Pupils will be taught to:	**Lesson**
Number – Addition and subtraction	**Week 1**	
• add and subtract numbers mentally, including: – a three-digit number and ones – a three-digit number and tens – three-digit number and hundreds • solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction	• Add mentally a three-digit number and ones • Solve missing number problems	1
	• Add mentally a three-digit number and tens • Solve missing number problems	2
	• Add mentally a three-digit number and hundreds	3
	• Solve problems and reason mathematically	4
	Week 2	
	• Subtract mentally a three-digit number and ones • Solve missing number problems	1
	• Subtract mentally a three-digit number and tens • Solve missing number problems	2
	• Subtract mentally a three-digit number and hundreds	3
	• Solve problems and reason mathematically	4
Geometry – Properties of shape	**Week 3**	
• 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 right angles in 2-D shapes	1
	• Make and describe right-angled turns	2
	• Give and follow directions to make turns	3
	• Test whether angles are greater than or less than a right angle	4

Unit 4 **Number – Multiplication and division, including Number and place value**

National Curriculum attainment targets Pupils should be taught to:	**Lesson objectives** Pupils will be taught to:	**Lesson**
Number – Multiplication and division	**Week 1**	
• recall and use multiplication and division facts for the 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	• Count on and back in multiples of 4	1
	• Recall the multiplication and division facts for the 4 multiplication table	2
Number – Number and place value	• Use doubling to recall the multiplication facts for the 4 multiplication table • Use known number facts and place value to derive multiplication facts for the 4 multiplication table involving multiples of 10, e.g. 30 x 4 = 120	3
• count from 0 in multiples of 4 and 8	• Understand that division is the inverse of multiplication and vice versa • Say or write a division statement corresponding to a given multiplication statement involving all known multiplication tables	4
	Week 2	
	• Count on and back in multiples of 8	1
	• Recall the multiplication and division facts for the 8 multiplication	2
	• Use doubling to recall the multiplication facts for the 8 multiplication table • Use known number facts and place value to derive multiplication facts	3
	• Solve problems involving multiplication and division facts for the 4 and	4
Measurement (time)	**Week 3**	
• 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; use vocabulary such as o'clock, a.m./p.m., morning, afternoon, noon and midnight	• Tell and write the time to the nearest minute on a 12-hour clock with	1
	• Use a time line and read vocabulary related to time	2
	• Read time to the nearest minute on a 12-hour clock with Roman numerals and on a 24-hour clock	3
	• Estimate and measure time to the nearest minute	4

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Unit 5 **Number – Number and place value**
Number – Addition and subtraction, including Measurement (money)
Geometry – Properties of shape

National Curriculum attainment targets Pupils should be taught to:	**Lesson objectives** Pupils will be taught to:	**Lesson**
Number – Number and place value	**Week 1**	
• recognise the place value of each digit in a three-digit number (hundreds, tens, ones) • compare and order numbers up to 1000 • identify, represent and estimate numbers using different representations • read and write numbers up to 1000 in numerals and in words • solve number problems and practical problems involving these ideas	• Recognise the place value of each digit in a three-digit number (hundreds, tens, ones) • Represent numbers using Base 10 material	1
	• Compare and order numbers up to 1000	2
	• Compare and order numbers up to 1000 • Read and write numbers up to 1000 in numerals and in words • Represent and estimate numbers using money	3
	• Compare and order numbers up to 1000 • Solve number problems and reason mathematically	4
Number – Addition and subtraction	**Week 2**	
• solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction	• Add amounts of money	1
	• Subtract amounts of money to give change	2
	• Add and subtract amounts of money	3
Measurement (money) • add and subtract amounts of money to give change, using both £ and p in practical	• Solve problems involving money and reason mathematically	4
Geometry – Properties of shape	**Week 3**	
• draw 2-D shapes and describe them • recognise angles as a property of shape	• Draw and name 2-D shapes	1
	• Make shapes that match a property	2
	• Create 2-D shapes using folding and cutting	3
	• Describe the properties of 2-D shapes	4

Unit 6 **Number – Multiplication and division, including Number and place value**
Number – Fractions

National Curriculum attainment targets Pupils should be taught to:	**Lesson objectives** Pupils will be taught to:	**Lesson**
Number – Multiplication and division	**Week 1**	
• recall and use multiplication and division facts for the 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	• Count on and back in multiples of 2, 4 and 8	1
	• Use halving to recall the division facts for the 4 multiplication table	2
	• Use halving to recall the division facts for the 8 multiplication table	3
	• Solve problems and reason mathematically	4
Number – Number and place value • count from 0 in multiples of 4 and 8		
Number – Fractions	**Week 2**	
• recognise, find and write fractions of a discrete set of objects: unit and non-unit fractions with small denominators • recognise and use fractions as numbers: unit and non-unit fractions with small denominators • compare and order unit fractions, and fractions with the same denominator • solve problems that involve all of the above	• Recognise, find and write unit fractions of a set of objects • Solve fraction problems and reason mathematically	1
	• Recognise, find and write non-unit fractions of a set of objects • Solve fraction problems and reason mathematically	2
	• Compare and order unit fractions, and fractions with the same denominator	3
	• Recognise fractions as numbers	4
Measurement (length)	**Week 3**	
• measure, compare, add and subtract lengths (m/cm/mm)	• Use a ruler to draw and measure lines to the nearest centimetre	1
	• Use a ruler to draw and measure lines to the nearest millimetre	2
	• Use rulers to measure and compare lengths; use simple scaling of quantities and equivalents of mixed units	3
	• Add and subtract length using mixed units	4

Unit 7 **Number – Addition and subtraction, including Measurement (money)**
Statistics

National Curriculum attainment targets Pupils should be taught to:	**Lesson objectives** Pupils will be taught to:	**Lesson**
Number – Addition and subtraction	**Week 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 • add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction • estimate the answer to a calculation and use inverse operations to check answers • solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction	• Add three-digit numbers using the expanded written method of column addition • Estimate the answer to a calculation	1
	• Add three-digit numbers using the formal written method of column addition • Estimate the answer to a calculation	2
	• Add three-digit numbers using the formal written method of column addition • Estimate the answer to a calculation	3
	• Add numbers mentally and use the inverse operation to check the answer	4
	Week 2	
Measurement (money)	• Subtract three-digit numbers using the formal written method of column subtraction (decomposition) • Estimate the answer to a calculation	1
• add and subtract amounts of money to give change, using both £ and p in practical contexts	• Subtract three-digit numbers using the formal written method of column subtraction (decomposition) • Estimate the answer to a calculation	2
	• Subtract numbers mentally and use the inverse operation to check the answer	3
	• Add and subtract amounts of money • Solve problems involving money and reason mathematically	4
Statistics	**Week 3**	
• 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	• Interpret and present data using tables and charts	1
	• Interpret and present data in pictograms where one picture represents 2 units	2
	• Interpret and present data in bar charts with intervals labelled in multiples of 2	3
	• Use information presented in scaled pictograms, bar charts and tables	4

Unit 8 **Number – Multiplication and division, including Number and place value**
Number – Fractions
Measurement (perimeter)

National Curriculum attainment targets Pupils should be taught to:	**Lesson objectives** Pupils will be taught to:	**Lesson**
Number – Multiplication and division	**Week 1**	
• 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	• Count on and back in multiples of 50 and 100 • Find 100 more or less than a given number	1
	• Consolidate recall of the multiplication facts for the 2, 3, 4, 5, 8 and 10 multiplication tables, and related facts involving multiples of 10	2
	• Consolidate recall of the division facts for the 2, 3, 4, 5, 8 and 10 multiplication tables, and related facts involving multiples of 10	3
	• Solve problems and reason mathematically	4
Number – Number and place value		
• count from 0 in multiples of 50 and 100; find 100 more or less than a given number		
Number – Fractions	**Week 2**	
• recognise and show, using diagrams, equivalent fractions with small denominators • subtract fractions with the same denominator within one whole • compare and order unit fractions, and fractions with the same denominator • solve problems that involve all of the above	• Compare and order fractions with the same denominators • Solve fraction problems and reason mathematically	1
	• Subtract fractions within one whole	2
	• Recognise equivalent fractions	3
	• Recognise equivalent fractions using a fraction wall	4
Measurement (perimeter)	**Week 3**	
• measure the perimeter of simple 2-D shapes	• Calculate the perimeter of rectangles in centimetres and in metres	1
	• Using a ruler, draw and calculate the perimeter of rectangles	2

	• Measure and calculate the perimeter of regular 2-D shapes to the nearest centimetre	3
	• Measure and calculate the perimeter of 2-D shapes to the nearest centimetre	4

Unit 9 **Number – Number and place value**
Number – Addition and subtraction
Geometry – Properties of shape

National Curriculum attainment targets Pupils should be taught to:	**Lesson objectives** Pupils will be taught to:	**Lesson**
Number – Number and place value	**Week 1**	
• recognise the place value of each digit in a three-digit number (hundreds, tens, ones) • compare and order numbers up to 1000 • identify, represent and estimate numbers using different representations • read and write numbers up to 1000 in numerals and in words • solve number problems and practical problems involving these ideas	• Compare and order numbers up to 1000 • Read and write numbers to 1000 in numerals and in words	1
	• Compare and order numbers up to 1000	2
	• Partition three-digit numbers in various ways	3
	• Solve number problems and reason mathematically	4
Number – Addition and subtraction	**Week 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 • add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction • estimate the answer to a calculation and use inverse operations to check answers • solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction	• Add and subtract numbers mentally	1
	• Add three-digit numbers using the formal written method of column addition • Estimate and check the answer to a calculation	2
	• Subtract three-digit numbers using the formal written method of column subtraction (decomposition) • Estimate and check the answer to a calculation	3
	• Solve problems and reason mathematically	4
Geometry – Properties of shape	**Week 3**	
• draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them • identify horizontal and vertical lines and pairs of perpendicular and parallel lines	• Know when a line is horizontal or vertical	1
	• Know when a pair of lines are perpendicular or parallel	2
	• Describe the properties of 2-D shapes	3
	• Describe the properties of 3-D shapes	4

Unit 10 **Number – Multiplication and division**
Number – Fractions
Measurement (volume and capacity)

National Curriculum attainment targets Pupils should be taught to:	**Lesson objectives** Pupils will be taught to:	**Lesson**
Number – Multiplication and division	**Week 1**	
• write and calculate mathematical statements for multiplication using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods • 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	• Use partitioning to calculate TO x O • Estimate and check the answer to a calculation	1
	• Use partitioning and the grid method to calculate TO x O • Estimate and check the answer to a calculation	2
	• Use the expanded written method to calculate TO x O • Estimate and check the answer to a calculation	3
	• Solve problems and reason mathematically	4
Number – Fractions	**Week 2**	
• 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 • recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators • recognise and show, using diagrams, equivalent fractions with small denominators • solve problems that involve all of the above	• Find fractions of numbers	1
	• Solve fraction problems and reason mathematically	2
	• Recognise equivalent fractions	3
	• Count up and down in tenths • Find tenths by dividing by 10	4
Measurement (volume & capacity)	**Week 3**	
• measure, compare, add and subtract volume/capacity (l/ml)	• Know the equivalent of $\frac{1}{2}$, $\frac{1}{4}$, $\frac{3}{4}$ and $\frac{1}{10}$ of 1 litre in millilitres	1
	• Read scales marked in litres and in millilitres to the nearest 100 ml	2
	• Measure and compare capacities; use simple scaling of quantities and equivalents of mixed units	3
	• Add and subtract capacity using mixed units	4

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Unit 11 **Number – Addition and subtraction, including Measurement (money) Measurement (time)**

National Curriculum attainment targets Pupils should be taught to:	**Lesson objectives** Pupils will be taught to:	**Lesson**
Number – Addition and subtraction	**Week 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 • add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction • estimate the answer to a calculation and use inverse operations to check answers • solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction	• Add three-digit numbers using the formal written method of column addition • Estimate and check the answer to a calculation	1
	• Add three-digit numbers using the formal written method of column addition • Estimate and check the answer to a calculation	2
	• Add and subtract amounts of money	3
	• Add and subtract amounts of money • Solve problems involving money and reason mathematically	4
Measurement (money)	**Week 2**	
• add and subtract amounts of money to give change, using both £ and p in practical contexts	• Subtract three-digit numbers using the formal written method of column subtraction (decomposition)	1
	• Subtract three-digit numbers using the formal written method of column subtraction (decomposition) • Estimate and check the answer to a calculation	2
	• Add numbers mentally and use the inverse operation to check the answer	3
	• Subtract numbers mentally and use the inverse operation to check the answer	4
Measurement (time)	**Week 3**	
• 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]	• Tell and write the time to the nearest minute from a 12-hour analogue clock and from a 12-hour digital clock	1
	• Use the vocabulary of time and the relationships between seconds, minutes and hours to estimate, compare and record time	2
	• Know the number of days in each month, year and leap year	3
	• Calculate and compare the time taken to complete a task or an event	4

Unit 12 **Number – Multiplication and division Statistics**

National Curriculum attainment targets Pupils should be taught to:	**Lesson objectives** Pupils will be taught to:	**Lesson**
Number – Multiplication and division	**Week 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 • 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	• Use the expanded written method to calculate TO x O • Estimate and check the answer to a calculation	1
	• Use the formal written method to calculate TO x O • Estimate and check the answer to a calculation	2
	• Use the formal written method to calculate TO x O • Estimate and check the answer to a calculation	3
	• Solve problems and reason mathematically	4
	Week 2	
	• Use partitioning to calculate TO ÷ O • Estimate and check the answer to a calculation	1
	• Use the expanded written method to calculate TO ÷ O • Estimate and check the answer to a calculation	2
	• Use the formal written method to calculate TO ÷ O • Estimate and check the answer to a calculation	3
	• Solve problems and reason mathematically	4
Statistics	**Week 3**	
• 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	• Interpret and present data in pictograms where one picture represents 2 or 5 units	1
	• Interpret and present data in bar charts with intervals labelled in multiples of 5 or 10	2
	• Use information presented in scaled pictograms and tables to answer questions	3

	• Use information presented in scaled bar charts and tables to answer questions	4