

Busy Ant Maths Curriculum Comparison Map – Years 3 and 4

Number – Number and place value	
Year 3 National Curriculum attainment targets Pupils should be taught to:	Year 4 National Curriculum attainment targets Pupils should be taught to:
<ul style="list-style-type: none">count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number	<ul style="list-style-type: none">count in multiples of 6, 7, 9, 25 and 1000find 1000 more or less than a given number
	<ul style="list-style-type: none">count backwards through zero to include negative numbers
<ul style="list-style-type: none">recognise the place value of each digit in a three-digit number (hundreds, tens, ones)	<ul style="list-style-type: none">recognise the place value of each digit in a four-digit number (thousands, hundreds, tens and ones)
<ul style="list-style-type: none">compare and order numbers up to 1000	<ul style="list-style-type: none">order and compare numbers beyond 1000
<ul style="list-style-type: none">identify, represent and estimate numbers using different representations	<ul style="list-style-type: none">identify, represent and estimate numbers using different representations
<ul style="list-style-type: none">read and write numbers up to 1000 in numerals and in words	
	<ul style="list-style-type: none">round any number to the nearest 10, 100 or 1000
<ul style="list-style-type: none">solve number problems and practical problems involving these ideas	<ul style="list-style-type: none">solve number and practical problems that involve all of the above and with increasingly large positive numbers
	<ul style="list-style-type: none">read Roman numerals to 100 (I to C) and know that over time the numeral system changed to include the concept of zero and place value

* National curriculum Notes and guidance (non-statutory)

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Number – Addition and subtraction	
Year 3 National Curriculum attainment targets Pupils should be taught to:	Year 4 National Curriculum attainment targets Pupils should be taught to:
<ul style="list-style-type: none">practise solving varied addition and subtraction questions. For mental calculations with two-digit numbers, the answers could exceed 100. *	<ul style="list-style-type: none">practise mental methods with increasingly large numbers to aid fluency *
<ul style="list-style-type: none">add and subtract numbers mentally, including:<ul style="list-style-type: none">a three-digit number and onesa three-digit number and tensa three-digit number and hundreds	
<ul style="list-style-type: none">add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction	<ul style="list-style-type: none">add and subtract numbers with up to four digits using the formal written methods of columnar addition and subtraction where appropriate
<ul style="list-style-type: none">estimate the answer to a calculation and use inverse operations to check answers	<ul style="list-style-type: none">estimate and use inverse operations to check answers to a calculation
<ul style="list-style-type: none">solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction	<ul style="list-style-type: none">solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why

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Number – Multiplication and division	
Year 3 National Curriculum attainment targets Pupils should be taught to:	Year 4 National Curriculum attainment targets Pupils should be taught to:
<ul style="list-style-type: none"> recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables 	<ul style="list-style-type: none"> recall multiplication and division facts for multiplication tables up to 12 x 12
<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> 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
	<ul style="list-style-type: none"> recognise and use factor pairs and commutativity in mental calculations
	<ul style="list-style-type: none"> multiply two-digit and three-digit numbers by a one-digit number using formal written layout
	<ul style="list-style-type: none"> practise to become fluent in the formal written method of short division with exact answers *
<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> 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

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Number – Fractions (including decimals)	
Year 3 National Curriculum attainment targets Pupils should be taught to:	Year 4 National Curriculum attainment targets Pupils should be taught to:
<ul style="list-style-type: none">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	<ul style="list-style-type: none">count up and down in hundredths; recognise that hundredths arise when dividing an object by 100 and dividing tenths by 10
<ul style="list-style-type: none">recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominatorsrecognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators	<ul style="list-style-type: none">solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole numberunderstand the relation between non-unit fractions and multiplication and division of quantities, with particular emphasis on tenths and hundredths *
<ul style="list-style-type: none">recognise and show, using diagrams, equivalent fractions with small denominators	<ul style="list-style-type: none">recognise and show, using diagrams, families of common equivalent fractions
<ul style="list-style-type: none">add and subtract fractions with the same denominator within one whole [for example, $\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$]	<ul style="list-style-type: none">use factors and multiples to recognise equivalent fractions and simplify where appropriate [for example, $\frac{6}{9} = \frac{2}{3}$ or $\frac{1}{4} = \frac{2}{8}$] *
<ul style="list-style-type: none">compare and order unit fractions and fractions with the same denominators	<ul style="list-style-type: none">add and subtract fractions with the same denominator

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Number – Fractions (including decimals) Continued	
Year 3 National Curriculum attainment targets Pupils should be taught to:	Year 4 National Curriculum attainment targets Pupils should be taught to:
	<ul style="list-style-type: none">• extend the use of the number line to connect fractions, numbers and measures*
	<ul style="list-style-type: none">• extend understanding of the number system and decimal place value to tenths and then hundredths *
	<ul style="list-style-type: none">• recognise and write decimal equivalents of any number of tenths or hundredths
	<ul style="list-style-type: none">• recognise and write decimal equivalents to $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$
	<ul style="list-style-type: none">• 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
	<ul style="list-style-type: none">• round decimals with one decimal place to the nearest whole number
	<ul style="list-style-type: none">• compare numbers with the same number of decimal places up to two decimal places
<ul style="list-style-type: none">• solve problems that involve all of the above	<ul style="list-style-type: none">• solve simple measure and money problems involving fractions and decimals to two decimal places

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Measurement	
Year 3 National Curriculum attainment targets Pupils should be taught to:	Year 4 National Curriculum attainment targets Pupils should be taught to:
<ul style="list-style-type: none"> measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml) 	<ul style="list-style-type: none"> convert between different units of measure [for example, kilometre to metre; hour to minute]
<ul style="list-style-type: none"> measure the perimeter of simple 2-D shapes 	<ul style="list-style-type: none"> estimate, compare and calculate different measures, including money in pounds and pence
	<ul style="list-style-type: none"> measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres
	<ul style="list-style-type: none"> find the area of rectilinear shapes by counting squares
	<ul style="list-style-type: none"> relate area to arrays and multiplication *
<ul style="list-style-type: none"> add and subtract amounts of money to give change, using both £ and p in practical contexts 	<ul style="list-style-type: none"> estimate, compare and calculate different measures, including money in pounds and pence
<ul style="list-style-type: none"> tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks 	<ul style="list-style-type: none"> read, write and convert time between analogue and digital 12- and 24-hour clocks
<ul style="list-style-type: none"> 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 	
<ul style="list-style-type: none"> know the number of seconds in a minute and the number of days in each month, year and leap year 	<ul style="list-style-type: none"> solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days
<ul style="list-style-type: none"> compare durations of events [for example to calculate the time taken by particular events or tasks] 	

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Geometry – Properties of shapes	
Year 3 National Curriculum attainment targets Pupils should be taught to:	Year 4 National Curriculum attainment targets Pupils should be taught to:
<ul style="list-style-type: none">draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them	<ul style="list-style-type: none">compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes
<ul style="list-style-type: none">recognise angles as a property of shape or a description of a turn	<ul style="list-style-type: none">identify acute and obtuse angles and compare and order angles up to two right angles by size
<ul style="list-style-type: none">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	
<ul style="list-style-type: none">identify horizontal and vertical lines and pairs of perpendicular and parallel lines	
	<ul style="list-style-type: none">identify lines of symmetry in 2-D shapes presented in different orientations
	<ul style="list-style-type: none">complete a simple symmetric figure with respect to a specific line of symmetry

Geometry – Position and direction	
Year 3 National Curriculum attainment targets Pupils should be taught to:	Year 4 National Curriculum attainment targets Pupils should be taught to:
	<ul style="list-style-type: none">describe positions on a 2-D grid as coordinates in the first quadrant
	<ul style="list-style-type: none">describe movements between positions as translations of a given unit to the left/right and up/down
	<ul style="list-style-type: none">plot specified points and draw sides to complete a given polygon

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Statistics	
Year 3 National Curriculum attainment targets Pupils should be taught to:	Year 4 National Curriculum attainment targets Pupils should be taught to:
<ul style="list-style-type: none">• interpret and present data using bar charts, pictograms and tables	<ul style="list-style-type: none">• interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs.
<ul style="list-style-type: none">• 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	<ul style="list-style-type: none">• solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs

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