

Progression Framework for

Mathematics Year Two

Progression Framework

Introduction

domain in the Programme of Study.

The content of each domain is further broken down into strands. These are:

- Number (which is split into the following three sub-domains):
 - Number and place value
 - Calculations and fractions
 - Decimals and percentages

- Measurement
- Geometry shape and position
- Statistics
- Ratio and proportion (Year 6 only)
- Algebra (Year 6 only).

See the separate document 'About the Progression Framework for mathematics' for more detailed information.

Progression Framework for Mathematics, Year Two

			Domain:	Number		
Strand	Sub-strand	Progression statement	NAHT key performance indicator (Y/N)	What to look for guidance (Working towards expectations)	What to look for guidance (Meeting expectations)	What to look for guidance (Exceeding expectations)
1) Number and place value	a) Count	2.1.a.1 Count in tens from any number, forward and backward (^)	Y	The pupil can count forward in tens from 5.	The pupil can count up in tens from 43.	The pupil can count backward in 20s from 120.
		2.1.a.2 Identify ten more or ten less than any given number (+)	Ν	The pupil can pick the number 14 as being ten less than 24 from a set of two digit numbers.	The pupil can identify the numbers 96 and 116 as being ten less and ten more than 106.	The pupil can explain how to work out the number ten less than 44.
	2.1.a.3 Count in steps of 2, 3, and 5 from 0, forward and backward (^)		The pupil can continue the sequence 2, 4, 6 to determine whether 22 is an even number.	The pupil can continue the sequence 3, 6, 9 to determine whether the number 41 is in it.	The pupil can count up in 3s from any number.	
	b) Represent numbers	2.1.b.1 Recognise the place value of each digit in a twodigit number (tens, ones)	Ν		The pupil can count out the number of counters represented by any two-digit number.	The pupil can solve problems such as 'Find the two-digit number such that the tens digit is 7 more than the ones digit and the ones digit is an odd number'.
		2.1.b.2 Read and write numbers to at least 100 in numerals and words	Ν	The pupil can find a given page in a book with 40 pages and write it in words.		The pupil can make all the possible two-digit numbers using 2, 5 and 7 and arrange them in alphabetical order.
		2.1.b.3 Identify, represent and estimate numbers to 100 using different representations, including the number line, and partitioning in different ways (+)	Ν	The pupil can partition 54 as 50 + 4 and show this using at least one type of manipulative.	number line and using concrete objects.	The pupil can find partitions of 54 and relate them to addition and subtraction, choosing the most efficient partition for a particular mental calculation, justifying their choice.

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1) Number and place value	c) Order and compare	2.1.c.1 Compare and order numbers from 0 up to 100; use q, G and = signs	Y	number out of 28 and 64 and place the correct sign (q or G)		The pupil can solve problems involving ordering numbers in the context of measures and solve missing number problems such as '1 + 36 q 73, what values could I have?'
	d) Solve number problems	2.1.d.1 Solve number problems with number facts and place value from the Year 2 curriculum (+)	Υ	shows the digit 5. What is the largest two-digit number I can	The pupil can solve problems such as 'I have two cards. One shows the digit 4 and the other shows the digit 8. What is the largest two-digit number I can make by putting them side by side?'	The pupil can make up problems such as 'I have two cards. One shows the digit 4 and the other shows the digit 7. What is the largest two- digit number I can make by putting them side by side?', and justify their answer.
	e) Round numbers	There is no content for this sub-s	trand in Year 2.			

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Strand	Sub-strand	Progression statement	NAHT key performance indicator (Y/N)	What to look for guidance (Working towards expectations)	What to look for guidance (Meeting expectations)	What to look for guidance (Exceeding expectations)		
2) Calculation	a) Understand calculation	2.2.a.1 Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot	Ν	8 + 2 is the same as	The pupil can demonstrate that 8 + 2 is the same as 2 + 8 but that 8 – 2 is not the same as 2 – 8, using appropriate images or manipulatives.	The pupil can provide a general argument that the result of adding two numbers does not depend on the order in which they are written, and a general argument that this does not work with subtraction.		
		2.2.a.2 Understand that sum and difference indicate addition and subtraction respectively (+)	Ν	The pupil can recognise that the sum of two numbers is found by adding them together, with appropriate supportive questioning.	The pupil can interpret 'sum' as implying addition and 'difference' as implying subtraction.	The pupil can interpret 'sum' as implying addition and 'difference' as implying subtraction and that, in the case of finding the difference, you subtract the smaller number from the larger one.		
		2.2.a.3 Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot	Ν	The pupil can demonstrate that 8 x 2 is the same as 2 x 8 but that 8 \div 2 is not the same as 2 \div 8, using appropriate images or manipulatives with appropriate questioning.	The pupil can demonstrate that 8 x 2 is the same as 2 x 8 but that 8 ÷ 2 is not the same as 2 ÷ 8, using appropriate images or manipulatives.	The pupil can provide a general argument that the result of multiplying two numbers does not depend on the order in which they are written, and a general argument that this does not work with division.		
		2.2.a.4 Use a variety of language to describe multiplication and division (*)	Ν	•	The pupil can associate the language of grouping and sharing with division, and of combining equal groups and 'lots of' for multiplication.	The pupil can identify what language is associated with multiplication and division and realises that some applies to both.		

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2) Calculation	culation b) Calculate mentally	2.2.b.1 Add and subtract numbers using concrete objects, pictorial representations, and mentally, including: two two-digit numbers and adding three one-digit numbers (^)	Ν	The pupil can correctly answer questions such as 3 + 5 + 2, 27 + 12 and 25 – 9 with the help of some jottings.	The pupil can correctly answer questions such as 3 + 5 + 2, 27 + 12 and 65 – 29 with no jottings.	The pupil can keep a mental running total of a sequence of two-digit numbers and correctly find their total.	
		2.2.b.2 Use addition and subtraction facts to 20 and derive related facts up to 100 (^)	Y	6 + 12 = 18 and deduce that	from 2 + 7 = 9.	The pupil can solve problems such as 'I am thinking of two numbers. Their sum is 87 and their difference is 17. What are the numbers?'	
		2.2.b.3 Calculate mentally using multiplication and division facts for the 2, 5 and 10 multiplication tables (+)	Y	The pupil can respond correctly when asked for answers to multiplication questions involving facts from the 2, 5 and 10 multiplication tables.	The pupil can recognise even numbers and recognise the 10 multiplication table as even multiples of 5. They also work out $40 \div 5 = 8$ from $8 \times 5 = 40$.	The pupil can solve problems such as 'Using 2, 2, 5 and 10, make as many numbers from 1 to 20 as you can'.	
	c) Solve calculation problems	2.2.c.1 Solve problems with addition and subtraction using concrete objects and pictorial representations, including those involving numbers, quantities and measures; applying their increasing knowledge of mental and written methods		The pupil can solve problems such as 'Gemma has five more marbles than Bob. Bob has 12 marbles. How many does Gemma have?', with manipulatives.	The pupil can solve problems such as 'Jane's mother is 32 years older than her. Jane is 6 years old. How old is her mother?'	The pupil can make up questions that require addition or subtraction in context.	

Progression Framework for Mathematics, Year Two

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2) Calculation	ulation c) Solve calculation problems	2.2.c.2 Use the inverse relationship between addition and subtraction to solve missing number problems (^)	Ν	The pupil can solve problems such as 'I think of a number, add five and get the answer 11. What is my number?' using subtraction, with prompting.	The pupil can solve problems such as 15 = ? — 12 using addition.	The pupil can solve problems such as 18 + ? = 28 – 9.		
		2.2.c.3 Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts	Y	The pupil can solve problems such as 'Jon goes to the shop and buys five packs of apples. There are four apples in each pack. How many apples does he buy?', with supporting equipment.	The pupil can solve problems such as 'Jon goes to the shop and buys five packs of apples. There are four apples in each pack. how many apples does he buy?'			
	d) Recall	2.2.d.1 Recall addition and subtraction facts to 20 fluently, deriving related facts to 100 (^)	Y	The pupil can list the pairs of numbers that add to ten without prompting, and can solve missing number problems such as ? + 12 = 20 with prompting.	The pupil can solve missing number problems such as 5 + ? = 20 and 17 = 8 + ?.	The pupil can solve problems such as 'I am thinking of two numbers. Their sum is 20 and their difference is six. What are they?'		
		2.2.d.2 Recall multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers		The pupil can recall multiplication table facts such as $4 \times 5 = 20$ and write down one of the associated division facts.	The pupil can recall or deduce 5 x 7 = 35, 35 ÷ 5 = 7 and 35 ÷ 7 = 5 to solve problems.	The pupil can predict whether the answer to a 2, 5 or 10 multiplication table question will be odd or even.		

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2) Calculation	on e) Use written calculation	2.2.e.1 Record addition and subtraction in columns using an expanded format involving partitioning (+)	Ν	The pupil can partition $17 + 12$ to $10 + 7 + 10 + 2$ in a vertical arrangement to get $20 + 9 = 29$, with supporting equipment.	The pupil can partition 27 + 12 to 20 + 7 + 10 + 2 in a vertical arrangement to get 30 + 9 = 39.	The pupil can devise a variety of ways of recording addition and subtraction, some of which are in a vertical format
		2.2.e.2 Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs		The pupil can solve missing number problems involving multiplication facts such as 6 x ? = 30, and use manipulatives and images to demonstrate 2 x 5 = 10 with prompting.	The pupil can solve missing number problems such as $45 \div$? = 9 and 2 x ? = 24, and use counters or other manipulatives to demonstrate the number sentence 2 x 5 = 10 and 10 \div 2 = 5.	The pupil can solve problems such as 'Write an expression involving only multiplication and division of 2, 5 and 10 to make the numbers from 1 to 20' and any calculation involving two two-digit numbers and the four operations using the symbols $+$, $-$, x, \div and =.
	f) Check	2.2.f.1 Check subtraction calculations using addition calculations by adding in a different order (*)	Ν	The pupil can check their answer to 7 + 9 by working out 9 + 7 and, with prompting, notice that 9 + 7 is 'easier' when you count on.	The pupil can check their answer to 47 – 10 = 37 by working out 37 + 10 to give 47. The pupil can check their answer to 5 + 8 + 2 by working out 8 + 2 + 5	The pupil can explain why checking subtractions by subtracting the numbers in a different order does not work The pupil can select the most reliable method to work out 8 + 4 + 7 and then check it by adding in a different order

		Progression F	ramework f	or Mathematics,	Year Two			
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Strand	Sub-strand	Progression statement	NAHT key performance indicator (Y/N)	What to look for guidance (Working towards expectations)	What to look for guidance (Meeting expectations)	What to look for guidance (Exceeding expectations)		
3) Fractions, decimals and percentages	a) Understand FDP	2.3.a.1 Recognise, find, name and write fractions 1/3 and 1/4 of a length, shape, set of objects or quantity (^)	Y	The pupil can arrange a set of 12 counters into four groups of three counters each and identify, with prompting, that each of them represents a quarter.	The pupil can identify three equal parts of a rectangle and know that each of them represents 1/3.	rectangle into three or four		
		2.3.a.2 Recognise, find, name and write fractions 2/4 and 3/4 of a length, shape, set of objects or quantity (^)	Y	The pupil can arrange a set of 12 counters into four groups of three counters each and identify, with prompting, that three of them represent 3/4.	The pupil can identify four equal parts of a rectangle and know that two of them represent 2/4 and three of them represent 3/4.	The pupil can divide a rectangle into three or four equal parts and explain how to represent 1/2, 2/4, 3/4, 1/3 and 2/3 using them.		
	b) Convert FDP	2.3.b.1 Recognise the equivalence of 2/4 and 1/2 (^)	N		5	The pupil can explain that 2/4 is equivalent to 1/2 and give an example of when that might be used.		
	c) Use FDP as numbers	2.3.c.1 Write simple fractions (^)	Ν	The pupil can work out 1/2 of 8 with supporting diagrams.	The pupil can work out 1/2 of 8 = 4 and 1/3 of 6 = 2 using manipulatives or images as appropriate.	The pupil can work out half of any even number up to 24 and a fifth of any multiple of 5 up to 60.		
	d) Solve FDP problems	There is no content for this sub-s	trand in Year 2.					

	Progression Framework for Mathematics, Year Two								
	Domain: Measurement								
Strand	Progression statement	NAHT key performance indicator (Y/N)	What to look for guidance (Working towards expectations)	What to look for guidance (Meeting expectations)	What to look for guidance (Exceeding expectations)				
1) Understand units of measure	s 2.1.1 Compare and sequence intervals of time	Ν	The pupil can use their knowledge that there are five minutes between each number on a clock face for the minute hand to compare time intervals with some prompting.	The pupil can work out the time between 'five past' and '20 past' an hour and know that it is shorter than from 'quarter to' until 'ten past' an hour.	The pupil can work out time intervals fo times expressed using multiples of five minutes and check their answer by considering the amount of turn of the minute hand.				
	2.1.2 Know the number of minutes in an hour and the number of hours in a day	Ν	The pupil can work out from an analogue clock face that there are 60 minutes in an hour by counting in fives with prompting, and be aware that the hour hand goes round twice during the course of a whole day.	The pupil can work out that half an hour is 30 minutes and knows that two times 12 hours is one day because there are 24 hours in a day.	The pupil can use their knowledge of minutes and hours to work out time intervals.				
	2.1.3 Recognise and use symbols for pounds (£) and pence (p) (^)	Ν	The pupil can assemble the coins to match an amount of money written using £ and p, with prompts.	The pupil can assemble the coins to match an amount of money written using \pounds and p and describe an amount of money in writing using \pounds and p.					
	2.1.4 Compare and order measurements and record the results using G, q and = as well as simple multiples (*)	Ν	The pupil can select from a set of measurements pairs of measurements that satisfy conditions such as 'is less than', 'is greater than' and 'is the same as' and record them using symbols, with prompting.	The pupil can select from a set of measurements pairs of measurements that satisfy conditions such as 'is less than', 'is greater than', 'is the same as' and 'is twice' and record them using symbols where appropriate.	The pupil can create a set of four measurements from which pairs can be chosen that satisfy conditions such as 'is less than', 'is greater than', 'is the same as' and 'is twice'.				

	Progression Framework for Mathematics, Year Two							
	Domain: Measurement							
Strand	Progression statement	NAHT key performance indicator (Y/N)	What to look for guidance (Working towards expectations)	What to look for guidance (Meeting expectations)	What to look for guidance (Exceeding expectations)			
2) Make measurements	2.2.1 Tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock face to show these times	Ν	The pupil can tell when it is ten past two and twenty to two, interpreting the homophones of 'to' correctly with appropriate prompts.	The pupil can tell when it is ten past two and twenty to two, interpreting the homophones of 'to' correctly. The pupil can draw the hands on a clock face to show quarter past three or quarter to eleven.	The pupil can confidently tell the time to within five minutes and work out how long it is (to within five minutes) to significant times such as lunchtime.			
	2.2.2 Record the time on an	Ν	The pupil can record the time as 'six o'clock'.	The pupil can record the time as 'quarter past three'.	The pupil can record the time as 'twenty five past five'.			
	2.2.3 Choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature (°C); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels		The pupil can select a ruler marked in centimetres to measure the length of a pencil and interpret the scale to read the length.	The pupil can select centimetres to measure the length of a pencil and read from the scale on a watering can that it contains 15 litres of water.	The pupil can read scales on a wide range of measuring instruments and interpret the display beyond 100 to measure grams and millilitres.			

	Progression Framework for Mathematics, Year Two							
			Domain: Measurer	nent				
Strand	Progression statement	NAHT key performance indicator (Y/N)	What to look for guidance (Working towards expectations)	What to look for guidance (Meeting expectations)	What to look for guidance (Exceeding expectations)			
3) Solve measurement problems	2.3.1 Calculate time intervals and develop a sense of the length of different units of time (+)	Ν	The pupil can choose minutes as the appropriate unit for measuring the time taken to do a task.	The pupil can make sensible estimates of time intervals such as 'I will spend ten minutes eating my lunch' and know that ten seconds is too short and ten hours is much too long.	The pupil can estimate how long it will take to do a task and be reasonably accurate in their judgement.			
	2.3.2 Combine amounts of money to make a particular value including different combinations of coins that equal the same amount of money (*)	Ν	The pupil can solve problems such as 'It costs 50p to park a car for two hours. Show some of the ways you can make up 50p using coins'.	The pupil can solve problems such as 'It costs £1 to park a car for two hours. Show all the ways you can make up £1 using six coins'.	The pupil can solve problems such as 'It costs £1 or £1.50 or 90p or 75p to park a car for two hours depending which car park you go to. You need to take £1.50 in coins so that you can pay the exact money in any of the car parks. What coins do you need to do it with the minimum number of coins?'			
	2.3.3 Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change	Y	1 1 1 3	The pupil can solve problems such as 'I buy a pencil for 20p and a ruler for 45p. What change do I get from £1?'				
	2.3.4 Solve problems involving comparing measures of length, mass and capacity/volume (+)	Ν	The pupil can compare the length of two pencils saying 'One is half the length of the other'.	The pupil can compare the capacity of two jugs saying 'One holds twice as much as the other'.	The pupil can compare the capacity of two jugs saying 'One holds five times as much as the other'.			

		Progressio	n Framework for Math	ematics, Year Two				
	Domain: Geometry							
Strand	Progression statement	NAHT key performance indicator (Y/N)	What to look for guidance (Working towards expectations)	What to look for guidance (Meeting expectations)	What to look for guidance (Exceeding expectations)			
1) Make and visualise shapes	2.1.1 Draw lines and shapes using a straight edge (+)	Ν	The pupil can copy a simple shape.	The pupil can copy a simple shape or draw one according to instructions given.	The pupil can draw a shape from memory.			
	2.1.2 Identify 2-D shapes on the surface of 3-D shapes, [for example, a circle on a cylinder and a triangle on a pyramid]	Ν	The pupil can select from a set of 3-D shapes those with a rectangle as one of the faces.	The pupil can sort 3-D shapes into a Carroll diagram according to the 2-D shapes that are faces of that 3-D shape.	The pupil can create a 3-D shape with particular 2-D shapes forming its faces.			
2) Classify shapes	2.2.1 Identify 2-D shapes on the surface of 3-D shapes, [for example, a circle on a cylinder and a triangle on a pyramid]	Ν	The pupil can sort 2-D shapes according to whether they have a curved edge, with prompting.	The pupil can sort 2-D shapes according to whether they have a curved edge or whether they have more than three corners, and 3-D shapes according to how many faces they have.	The pupil can sort shapes into a Carroll diagram according to two properties.			
	2.2.2 Identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line	Ν	The pupil can draw a line of symmetry on a drawing of a square.	The pupil can identify that a rectangle has line symmetry but a triangle may not have line symmetry.				
	2.2.3 Identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces	Ν	The pupil can count the number of faces, edges and vertices of a triangular prism, with support.	The pupil can state that a triangular prism has five faces, nine edges and six vertices.	The pupil can state that a triangular prism has five faces, nine edges and six vertices using a representation of the prism.			

Progression Framework for Mathematics, Year Two						
	Domain: Geometry					
Strand	Progression statement	NAHT key performance indicator (Y/N)	What to look for guidance (Working towards expectations)	What to look for guidance (Meeting expectations)	What to look for guidance (Exceeding expectations)	
3) Solve shape problems	There is no content for this strand in Year 2.					
4) Describe position	2.4.1 Use mathematical vocabulary to describe position (^)	Ν	classroom and describe where it is using	The pupil can choose an object in the classroom and describe where it is using mathematical vocabulary.	The pupil can choose pairs of objects in the classroom that can be described in relation to each other using mathematical vocabulary.	
	2.4.2 Order and arrange combinations of mathematical objects in patterns and sequences	Ν	such as squares, triangles, circles and rectangles into a pattern, using different	The pupil can arrange a selection of shapes such as squares, triangles, circles and rectangles into a pattern, using different orientations.	The pupil can arrange a selection of shapes such as squares, triangles, circles and rectangles into a pattern with sequences within it, using different orientations.	
5) Describe movement	2.4.3 Use mathematical vocabularly to describe movement, including movement in a straight line (^)	Ν	such as squares, triangles, circles and rectangles into a pattern, using different	The pupil can arrange a selection of shapes such as squares, triangles, circles and rectangles into a pattern, using different orientations.	The pupil can arrange a selection of shapes such as squares, triangles, circles and rectangles into a pattern with sequences within it, using different orientations.	

Progression Framework for Mathematics, Year Two					
Domain: Statistics					
Strand	Progression statement	NAHT key performance indicator (Y/N)	What to look for guidance (Working towards expectations)	What to look for guidance (Meeting expectations)	What to look for guidance (Exceeding expectations)
1) Interpret data	2.1.1 Interpret data from simple pictograms, tally charts, block diagrams and simple tables (^)	Y	The pupil can answer questions such as 'How many people had school lunch on Tuesday?' from an appropriate tally chart or pictogram, with prompting.	The pupil can answer questions such as 'How many people had school lunch on Tuesday?' from an appropriate tally chart, table or pictogram.	The pupil can answer questions such as 'How many more people had school lunch on Tuesday than on Monday?' from an appropriate tally chart, table or pictogram.
2) Present data	2.1.2 Present data in simple tables, simple pictograms, tally charts and block diagrams (*)	N	The pupil can construct a tally chart to show how many children are in each class in the school.	The pupil can construct a tally chart and a pictogram to show how many children are in each class in the school.	• •
3) Solve data problems	2.3.1 Ask and answer questions about totalling and comparing categorical data	Y	The pupil can use appropriate data to solve problems such as 'How many people choose blue as their favourite colour?'		The pupil can use appropriate data to solve problems such as 'How many more people choose blue than yellow as their favourite colour?' They explain how they know that is the answer.
	2.3.2 Ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity	Ν	The pupil can solve problems such as 'Which category has the most objects in it?', with support.	The pupil can solve problems such as 'Which category has the most objects in it?'	The pupil can solve problems such as 'Which category has the most objects in it?' and make up some questions of their own about the situation.

Domain: Ratio

Strand	Progression statement	-	5 5	What to look for guidance (Meeting expectations)	What to look for guidance (Exceeding expectations)
There is no content	for this domain in Year 2				

	Progression Framework for Mathematics, Year Two				
Domain: Algebra					
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here is no conte	nt for this domain in Year 2.				

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