Progression Framework for

Mathematics

Year Three

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 Three

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)
a) Number and place value	a) Count	**3.1.a.1 Count from 0 in multiples of 100** (^)	Y	The pupil can chant the sequence 100, 200, 300 ...	The pupil can chant the sequence 200, 400, 600 ...	The pupil can count up to identify numbers that occur in both the sequence of 200s and the sequence of 300s.
		3.1.a.2 Find 10 or 100 more or less than a given number (^)	Y	The pupil can work out ten more than 23.	The pupil can work out ten less than 372 or a 100 more than 604.	The pupil can work out 20 more than 186 or 300 less than 902.
		3.1.a.3 Count from 0 in multiples of 4, 8 and 50 (^)	Y	The pupil can make some progress with the 4, 8, 12 ... sequence	The pupil can chant the sequence 8, 16, 24 ...	The pupil can count up to identify numbers that occur in both the sequence of 8s and the sequence of 50s.
	b) Represent numbers	**3.1.b.1 Recognise the place value of each digit in a three-digit number (hundreds, tens, ones)**	Y	The pupil can identify the hundreds digit when presented with a threedigit number.	The pupil can arrange three digit cards, e.g. 3, 4 and 7, to make the largest possible number and can justify their choice of 743 using the language of hundreds, tens and ones	The pupil can solve problems such as 'Arrange the digit cards 4, 5 and 8 to make the number closest to 500' and can justify their choice using the language of place value.
		3.1.b.2 Read and write numbers up to 1000 in numerals and in words	N	The pupil can find a given page in a book of 200 pages and write it in words.	The pupil can form a three-digit number from three digit cards and write it in words.	The pupil can solve problems such as 'Given two numbers up to 1000, find another that is between them alphabetically.'
		3.1.b.3 Identify, represent and estimate numbers to 1000 using different representations and partitioning in different ways (+)	N	The pupil can represent some numbers beyond 100 in different ways and partition them in at least one way.	The pupil can partition 462 in several ways and draw an appropriate diagram to show each of them.	The pupil can partition a threedigit number and use that to work out its complement to 1000, explaining their reasoning using the language of place value.

Progression Framework for Mathematics, Year Three

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)
a) Number and place value	c) Order and compare	3.1.c.1 Compare and order numbers up to 1000	N	The pupil can choose the smaller number out of 306 and 360.	The pupil can place the correct sign (=, q and G) in statements such as between 304 and 187 and between 425 and 394.	The pupil can solve problems in the context of measurement such as ordering the heights of mountains.
	d) Solve number problems	**3.1.d.1 Solve number problems and practical problems with number and place value from the Year 3 curriculum** (*)	Y	The pupil can solve problems such as 'I have 156 plastic cubes and give away 10 of them. How many do I have left?'	The pupil can solve problems such as 'A path is 750 cm long. It is to be paved with slabs of length 50 cm. How many slabs are needed?'	The pupil can solve problems such as 'I have 362 plastic cubes and boxes that will hold 50, 20, 8 or 4 at a time. What is the fewest number of boxes I need to box all of them?'
	e) Round numbers	3.1.e.1 Round whole numbers up to 100 to the nearest 10 (+)	N	The pupil can round 18 to the nearest 10 with supporting number line.	The pupil can round 28 to the nearest 10.	The pupil can explain why 28 rounds to 30 and 23 rounds to 20 to the nearest 10.

Domain: Number

Progression Framework for Mathematics, Year Three

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	3.2.a.1 Use understanding of place value and partitioning to develop methods for addition and subtraction with larger numbers (+)	N	The pupil can work out 129 – 43 by changing it to 120 + 9 – 40 + 3 = 80 + 6 = 86.	The pupil can work out 143 – 68 by changing it to 140 + 3 – 60 – 8 = 80 – 5 = 75.	The pupil can devise different ways to partition numbers to work out addition and subtraction problems.
		3.2.a.2 Understand the structure of situations that require addition or subtraction (+)	N	The pupil can represent adding two numbers by placing two bars end to end.	The pupil can represent adding two numbers by placing two bars end to end and subtracting two numbers by placing the bars side by side.	The pupil can interpret addition as the combining of two sets, and subtraction as removing a part of a set.
		3.2.a.3 Use commutativity and associativity and multiplication facts to derive related facts (+)	N	The pupil can work out 2 x 8 x 5 by changing it to 2 x 5 x 8 = 10 x 8 = 80 with, prompting.	The pupil can work out 6 x 3 x 5 by changing it to 6 x 5 x 3 = 30 x 3 = 90.	The pupil can work out 60 ÷ 3 by changing it to 6 ÷ 3 x 10 = 2 x 10 = 20.
		3.2.a.4 Understand the structure of situations that require multiplication (+)	N	The pupil can represent multiplying by placing equal bars side by side, with prompts.	The pupil can represent multiplying by placing equal bars side by side.	The pupil can represent multiplying by placing equal bars side by side, and as repeated addition.
	b) Calculate mentally	**3.2.b.1 Mentally add and subtract numbers including a three-digit number with ones, tens or hundreds** (*)	Y	The pupil can calculate 273 – 2.	The pupil can calculate 283 – 40.	The pupil can solve missing number problems such as 384 = 171 + ?.
		3.2.b.2 Continue to use addition and subtraction facts to 20 and derive related facts up to 100 (+)	N	The pupil can correctly answer 16 + 2 = 18 and deduce that 16 + 22 = 38.	The pupil can deduce that 32 + 37 = 69 from 2 + 7 = 9 and 42 + 37 = 79.	The pupil can make up problems such as 'I am thinking of two numbers. Their sum is 87 and their difference is 17. What are the numbers?'

Progression Framework for Mathematics, Year Three

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)
2) Calculation	b) Calculate mentally	**3.2.b.3 Calculate mentally using multiplication and division facts for the 3, 4 and 8 multiplication tables, including two-digit numbers times onedigit numbers** (^)	Y	The pupil can respond correctly when asked for answers to multiplication questions involving facts from the 3, 4 and 8 multiplication tables and solve word problems such as 'Cupcakes come in boxes of four cakes. How many cupcakes are in six boxes?'	The pupil can readily recall the facts from the 2, 3, 4, 5, 8 and 10 multiplication tables and use them within a calculation, such as 'There are eight apples in a bag. How many are in four such bags?' and solve word problems such as 'There are 96 cupcakes to put into boxes which hold 8 cupcakes each. How many boxes are needed?'	The pupil can solve problems such as 'Using 2, 3, 4 and 8, make as many numbers from 1 to 30 as you can' and solve word problems such as 'I have a number of cupcakes. I can pack them in boxes which contain four cakes, three cakes or eight cakes. In each case I will fill all of the boxes with none left over. What is the least number of cupcakes I could have?'
	c) Solve calculation problems	3.2.c.1 Solve problems including missing number problems, using place value and more complex addition and subtraction (^)	N	The pupil can solve problems such as 'You have four cards with the digits 1, 2, 3 and 4 on them, one digit per card. Arrange them to make two two-digit numbers so that the sum of them is as large as possible. A clue is that one of the numbers could be 42'.	The pupil can solve problems such as 'You have four cards with the digits 2, 4, 7 and 8 on them, one digit per card. Arrange them to make two two-digit numbers so that the sum of them is as large as possible'.	The pupil can solve problems such as 'You have six cards with the digits 2, 3, 4, 6, 7 and 8 on them, one digit per card. Arrange them to make three two-digit numbers so that the sum of them is as near 100 as possible'.
		3.2.c.2 Solve problems including missing number problems, using number facts and more complex addition and subtraction (^)	N	The pupil can solve problems such as 'I am thinking of a number. I subtract 13 from it and I get one more than six. What is my number?'	The pupil can solve problems such as 'I am thinking of a number. I subtract 14 from it and add five. I get 91. What is my number?'	The pupil can make up problems such as 'I am thinking of a number. I subtract 14 from it and add five and I get 91. What is my number?'

Domain: Number

Progression Framework for Mathematics, Year Three

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	c) Solve calculation problems	3.2.c.3 Solve calculation problems involving multiplication and division, including missing number problems, simple positive integer scaling and simple correspondence problems in which n objects are connected to m objects (*)	N	The pupil can solve problems such as 'Gita has two pencils. Mary has three times as many pencils as Gita. How many pencils does Mary have?'	The pupil can solve problems such as 'Fred has five goldfish and Jake has four times as many. How many goldfish does Jake have?' and 'There are five pupils around one table. Three are girls. One boy and one girl are needed to feed back on a maths problem. How many different pairs of a boy and a girl are there?'	The pupil can solve problems such as 'A fish weighs 50 g. Another fish weighs eight times as much. How much does the larger fish weigh?' and 'The school canteen has three choices for the main meal and five choices for pudding. How many different meals can you have?'
	d) Recall	3.2.d.1 Develop recall of number facts linking addition and multiplication (+)	N	The pupil can identify doubles and halves by recalling their 2 multiplication table facts and knowledge of even numbers.	The pupil can identify sequences such as 3, 6, 9 by recalling addition or multiplication facts.	The pupil can identify relationships between numbers by recalling addition and multiplication facts.
		3.2.d.2 Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables	Y	The pupil can recall or quickly work out answers to questions such as 3 x 8 = ? or 6 x 8 = ?.	The pupil can quickly respond to questions such as 4 x 8 = ? and 21 ÷ 3 = ?.	The pupil can solve problems such as 'What number appears in the multiplication table for both 3 and 8?'
	e) Use written calculation	3.2.e.1 Add and subtract numbers with up to three digits, using formal columnar methods of addition and subtraction	N	The pupil can, with prompting, add and subtract two three-digit numbers.	The pupil can add and subtract 613 and 285 using a formal method of columnar addition or subtraction.	The pupil can add and subtract 613 and 285 using a formal method of columnar addition or subtraction, explaining how it links with less formal methods.

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)

Progression Framework for Mathematics, Year Three

2) Calculation	e) Use written calculation	**3.2.e.2 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**	Y	The pupil can calculate 3 x 27, using jottings for support.	The pupil can calculate 3 x 27 using a formal written method such as the grid method and 81 ÷ 3 using a formal written method such as chunking.	The pupil can multiply and divide two-digit numbers by a single digit, explaining how their method works and extending it to more digits.
	f) Check	3.2.f.1 Check addition calculations using subtraction and addition and subtraction calculations using rounding (*)	N	The pupil can check the answer to 19 + 8 = 27 by working out 27 – 8 = 19 or by realising that 19 is close to 20 and 8 is close to 10 so the answer should be close to 30.	The pupil can check the answer to 217 + 48 = 265 by working out 265 – 48 = 217 or by rounding the numbers to 200 + 50 = 250. They can check the answer to 217 – 48 by rounding to 200 – 50 = 150.	The pupil can check the answer to 217 + 48 = 265 by selecting from a range of checking strategies for the most appropriate one or by rounding the numbers to 200 + 50 = 250. They can check the answer to 217 – 48 by rounding to 200 – 50 = 150 and predict whether the estimate will be an over-estimate or an underestimate.

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)**

Progression Framework for Mathematics, Year Three

3) Fractions, decimals and percentages	a) Understand FDP	**3.3.a.1 Recognise, find and write fractions of a discrete set of objects, unit fractions with small denominators** (^)	Y	The pupil can arrange a set of 12 counters into six groups of two counters each and select, with prompting, 1/6 of them.	The pupil can arrange a set of 24 counters into equal groups and select 1/6 of them, recording their selection using fraction notation.	The pupil can identify what types of fraction can be made with a set of 24 counters, realising that quarters and sixths are possible but fifths are not.
		3.3.a.2 Recognise, find and write fractions of a discrete set of objects, non unit fractions with small denominators (^)	Y	The pupil can arrange a set of 12 counters into six groups of two counters each and select, with prompting, 3/6 of them.	The pupil can arrange a set of 24 counters into equal groups and select 4/6 of them, recording their selection using fraction notation.	The pupil can identify what types of fraction can be made with a set of 24 counters. comparing 3/4 and 5/6 using the counters.
		3.3.a.3 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	Y	The pupil can continue the sequence 1/10, 3/10, 5/10 for two more terms, with prompting. The pupils can divide a cake into ten equal pieces and identify four of them as four-tenths	The pupil can continue the sequence 1/10, 4/10, 7/10 for five more terms. The pupil can divide a cake into ten equal pieces and identify three of them as three tenths. They can also share three cakes between ten people and, with prompting, say that each person gets three-tenths of a cake.	The pupil can confidently count back from 3 1/10 in steps of seven-tenths. The pupil can divide a cake into ten equal pieces and identify three of them as three-tenths. They can also share three cakes between ten people and explain that each person gets three-tenths of a cake.

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)**
3) Fractions, decimals and percentages	b) Convert FDP	**3.3.b.1 Recognise and show, using diagrams, equivalent fractions with small denominators**	Y	The pupil can draw a 3 by 2 rectangle and demonstrate that 1/2 is equivalent to 3/6 using appropriate shading.	The pupil can draw a 2 by 4 rectangle and demonstrate that 2/8 is equivalent to 1/4 and that 4/8 is equivalent to 1/2.	The pupil can draw a 4 by 3 rectangle and use it to illustrate several families of equivalences, explaining why certain fractions cannot be shown using the rectangle.

Progression Framework for Mathematics, Year Three

		3.3.b.2 Connect tenths to decimal measures and place value (+)	N	The pupil can identify the digit after a decimal point as representing tenths.	The pupil can explain that tenths are special because our number system is in base 10. They connect this with 0.3 being called three-tenths and the column after the decimal point being called tenths.	The pupil can explain why tenths are special in our number system. They connect this with 0.3 being called three-tenths and the column after the decimal point being called tenths, as well as in contexts such as measures.
	c) Use FDP as numbers	3.3.c.1 Compare and order unit fractions, and fractions with the same denominators	N	The pupil can identify the larger of 1/3 and 1/5 and the larger of 2/5 and 3/5, with supporting diagrams.	The pupil can identify the larger of 1/3 and 1/7 and identify the smaller out of 2/7 and 5/7.	The pupil can give a general rule for identifying the larger of two unit fractions and the smaller of two fractions with the same denominator, explaining why they work.
		3.3.c.2 Add and subtract fractions with the same denominator within one whole [for example 5/7 + 1/7 = 6/7]	N	The pupil can calculate 1/4 + 1/4 = 2/4.	The pupil can calculate 2/9 + 8/9 = 10/9 and 10/9 – 8/9 = 2/9.	The pupil can calculate 2/9 + 8/9 = 10/9 and 10/9 – 8/9 = 2/9. They realise that 10/9 is greater than one and can suggest ways to record this.

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)**
3) Fractions, decimals and percentages	c) Use FDP as numbers	**3.3.c.3 Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators**	Y	The pupil can place 1/4, 1/2 and 3/4 at appropriate positions on a number line and 1/3, with prompts.	The pupil can place 1/3 and 5/7 at appropriate places on a number line.	The pupil can place any fraction in an appropriate position on the number line.

Progression Framework for Mathematics, Year Three

		3.3.d.1 Solve problems with fractions from the Year 3 curriculum (*)	N	The pupil can solve problems such as 'I have 12 counters. One-third of them are yellow. The rest are blue. How many blue counters do I have?'	The pupil can solve problems such as 'I have 12 counters. One quarter of them are blue, one third are yellow and the rest are green. How many are green?'	The pupil can devise problems such as 'I have 24 counters. One third of them are blue, one-sixth are red and one-eighth are green. The rest are yellow. How many are yellow?'

Progression Framework for Mathematics, Year Three

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	3.1.1 Convert between analogue and 12-hour digital clocks (+)	N	The pupil can write three o'clock as 03:00.	The pupil can write any analogue time in a digital format.	The pupil can convert between analogue and digital format.
	3.1.2 Know the number of seconds in a minute and the number of days in each month, year and leap year	N	The pupil can correctly identify some months with 30 days and some with 31 days.	The pupil can work out that half a minute is the same as 30 seconds and knows how many months have 31 days and the effect of leap years.	The pupil can work out how many days it is until their tenth birthday, taking leap years into account.
	3.1.3 Become confident in exchanging between £ and p when handling money (+)	N	The pupil can count a pile of coins, assembling them into piles worth £1.	The pupil can count up a pile of coins and record the total using £ and p.	The pupil can estimate the amount that a pile of coins is worth, recording the amount in £ and p.
	3.1.4 Record measurements using mixed units, e.g.1 kg 200 g (+)	N	The pupil can measure the width of the classroom and record it using a mixture of metres and centimetres, with support.	The pupil can measure the width of the classroom and record it using a mixture of metres and centimetres.	The pupil can measure the width of the classroom and record it using a mixture of metres and centimetres and make suggestions about how that could be written using just one unit.

Progression Framework for Mathematics, Year Three

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	3.2.1 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	N	The pupil can tell the time to the nearest five minutes and, with prompting, identify times between the five minutes with reasonable accuracy and compare two times for completing a race and decide who won.	The pupil can identify when it is 27 minutes past seven p.m. and know that it is then three minutes to bedtime and compare the times taken by runners to complete a race, placing them in ascending order.	The pupil can tell the time on any clock and interpret it in terms of the next event and how long before it occurs. The pupils can also order the times to complete a marathon and identify the first three in the race.
	3.2.2 Tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks	Y	The pupil can interpret the quarter hours on an analogue clock marked with Roman numerals.	The pupil can interpret the time on an analogue clock marked with Roman numerals and write it down in 12-hour and 24-hour clock times.	The pupil can read the time fluently on any clock, deducing the time from the position of the hands irrespective of the markings.
	3.2.3 Continue to choose the appropriate tools and units when measuring, selecting from a wider range of measures (+)	N	The pupil can select a jug with a scale on the side to measure liquid.	The pupil can choose between a ruler, tape measure and trundle wheel when measuring length.	The pupil can select an appropriate instrument to measure and use a wide variety of scales and units.
	3.2.4 Measure the perimeter of simple 2-D shapes	N	The pupil can, with support, measure the perimeter of a rectangular picture.	The pupil can measure the perimeter of a rectangle such as a book or picture.	The pupil can measure the length and width of a rectangle and work out the perimeter.

Progression Framework for Mathematics, Year Three

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)
3) Solve measurement problems	3.3.1 Compare durations of events [for example to calculate the time taken by particular events or tasks]	N	The pupil can solve problems such as 'Which film is shorter out of the two films you could watch this evening?'	The pupil can solve problems such as 'There are three films on television this evening. Which is the shortest one?'	The pupil can solve problems such as 'There are three films on television this evening. Which ones do I have time to watch between finishing my meal and going to bed?'
	3.3.2 Continue to solve problems involving combinations of coins and notes (+)	N	The pupil can solve problems such as 'I buy a comic for £1 and a drink for 55p. What coins could I use?'	The pupil can solve problems such as 'I buy a comic for £1 and a drink for 55p. What is the minimum number of coins that I could use?'	The pupil can solve problems such as 'I buy a comic for £1 and 45p and a drink for 83p. How many different combinations of coins could I use to pay for them exactly?'
	3.3.3 Add and subtract amounts of money to give change, recording £ and p separately (*)	Y	The pupil can solve problems such as 'I buy a comic for £1 and a drink for 55p. How much do I spend altogether?'	The pupil can solve problems such as 'I buy a comic for £1 and a drink for 55p. How much change do I get from £2?'	The pupil can solve problems such as 'I buy a comic for £1 and 45p and a drink for 83p. How much change do I get from £5?'
	3.3.4 Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)	Y	The pupil can solve problems such as 'Which of these three pencils is longest?'	The pupil can solve problems such as 'How much longer is my pencil than Toby's pencil?'	The pupil can solve problems such as 'Arrange these containers in order of capacity by eye, then check your order'.
	3.3.5 Measure the distance around shapes in the classroom and outside environment (+)	N	The pupil can use a trundle wheel to measure around the playground.	The pupil can measure the total length of lines on a netball court or football pitch.	The pupil can measure the distance around a picture and speculate on why that distance might be useful.

Progression Framework for Mathematics, Year Three

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	3.1.1 Draw 2-D shapes with straight sides measured in cm (+)	N	The pupil can draw a rectangle with sides of length 7 cm and 5 cm using a ruler.	The pupil can draw a parallelogram with sides of length 7 cm and 5 cm using a ruler.	The pupil can draw a diagram of any rectilinear (made up of right angles) shape with given dimensions.
	3.1.2 Make 3-D shapes using modelling materials (^)	N	The pupil can make a cube using more than one type of modelling material.	The pupil can make cubes, cones and prisms using a variety of modelling materials.	The pupil can select the most appropriate modelling material to make a particular 3-D shape.
2) Classify shapes	3.2.1 Identify horizontal and vertical lines and pairs of perpendicular and parallel lines	N	The pupil can, with support, identify vertical, horizontal and parallel lines around the classroom with prompting.	The pupil can look around the classroom environment and identify vertical lines and horizontal lines, noticing that they are perpendicular. The pupil can identify instances of parallel lines in the classroom environment.	The pupil can explain why horizontal and vertical lines are always perpendicular and pairs of vertical lines are always parallel.
	3.2.2 Describe 2-D shapes using accurate language, including lengths of lines and angles greater or less than a right angle (+)	N	The pupil can describe a square as having four sides that are the same length of 5 cm and that all four angles are right angles, with prompting.	The pupil can describe a parallelogram as having opposite pairs of sides that are both 6 cm in length and that two of the angles are greater than a right angle and the other two are smaller than a right angle.	The pupil can explain that a square is an example of a rectangle but that a rectangle is not an example of a square by referring to the lengths of their sides.
	3.2.3 Recognise 3-D shapes in different orientations and describe them (^)	N	The pupil can explore the environment inside and outside the classroom and identify objects that are approximately the same as spheres and cylinders, with prompting.	The pupil can explore the environment inside and outside the classroom and identify objects that are approximately the same as known 3-D shapes.	The pupil can explore the environment inside and outside the classroom and identify objects that are approximately the same as known 3-D shapes and explain why they might be that shape.

Progression Framework for Mathematics, Year Three

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	3.3.1 Identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn (^)	Y	The pupil can direct a sprite through a maze drawn on a square grid using the language of right angles to describe the turns to be made.	The pupil can direct a sprite through a maze drawn on a square grid using the language of right angles to describe the clockwise turns to be made. They can retrace their steps by turning through two right angles and sort a set of angles according to whether they are greater than or less than a right angle.	The pupil can devise a sequence of instructions to direct a sprite through a maze drawn on a square grid using the language of right angles to describe the clockwise turns to be made. They can retrace their steps by turning through two right angles.
	3.3.2 Identify whether angles are greater than or less than a right angle	Y	The pupil can direct a sprite through a maze drawn on a square grid using the language of right angles to describe the turns to be made, with support, and identify whether an angle is greater than or less than a right angle by comparing it to the corner of a book.	The pupil can sort a set of angles according to whether they are greater than or less than a right angle.	The pupil can explain why a triangle cannot have more than one angle that is greater than a right angle.
	3.3.3 Recognise angles as a property of shape or a description of a turn	N	The pupil can draw a rectangle using a Beebot.	The pupil can draw a rectangle using LOGO or a Beebot.	The pupil can draw a variety of shapes using LOGO or a Beebot.
4) Describe position	3.4.1 Mark a given square on a grid, e.g. A3 (+)	N	The pupil can identify a square on a 5 by 5 square grid by referring to the row and column it is in, with support.	The pupil can identify a square on a 5 by 5 square grid by referring to the row and column it is in.	The pupil can identify a square on a 5 by 5 square grid by referring to the row and column it is in. They can devise their own system of labelling with the 'origin' in a different position.
	3.4.2 Continue to recognise and devise patterns and sequences in shapes (+)	N	The pupil can predict the next shape in a repeating pattern.	The pupil can predict the next shape in a pattern or sequence involving rotation or reflection.	The pupil can predict the next shape in a pattern or sequence involving rotation and reflection.
5) Describe movement	3.5.1 Give and follow multistep directions in own environment (+)		The pupil can program a screen turtle, such as in LOGO, to trace out a path, with prompts.	The pupil can program a screen turtle, such as in LOGO, to trace out a path.	The pupil can program a screen turtle, such as in LOGO, to trace out a path and complete a known shape.

Progression Framework for Mathematics, Year Three

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	**3.1.1 Interpret bar charts, pictograms and tables (^)**	Y	The pupil can answer questions such as 'The number of people who had school lunch on Monday is 14. How many had school lunch on Thursday?' from a pictogram where each icon represents two people.	The pupil can answer questions such as 'The number of people who had school lunch on Monday is 24. How many had school lunch on Thursday?' from a pictogram where each icon represents four people.	The pupil can make up a series of questions about given tables, pictograms and bar charts.
2) Present data	**3.2.1 Present data in bar charts, pictograms and tables (^)**	Y	The pupil can draw a bar chart to represent information.	The pupil can construct tables to collect information and then represent it using a bar chart.	The pupil can design a table for collecting data and construct an appropriate graph to represent it, justifying their strategy.
3) Solve data problems	3.3.1 Solve problems with one or two steps using scaled bar charts, pictograms and tables (*)	N	The pupil can solve problems such as 'How many fewer children have dogs as pets than have cats?' by interpreting an appropriate pictogram.	The pupil can solve problems such as 'How many fewer children have dogs as pets than have cats?' by interpreting an appropriate diagram.	The pupil can collect the appropriate data to answer questions about how many pets, and of what sort, the children in their class have.
	3.3.2 Continue to count the number of objects in each category and sort the categories by quantity (+)	N	The pupil can solve problems such as 'Which category has the most objects in it?'	The pupil can solve problems such as 'Order the categories by the number of objects they contain'.	The pupil can solve problems about the categories and make up some questions of their own about the situation.

Domain: Ratio

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)
There is no content for this domain in Year 3.					

Progression Framework for Mathematics, Year Three

Domain: Algebra

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)
There is no content for this domain in Year 3.					

Progression Framework for Mathematics, Year Three

ASSESSMENT