



# SCHOOL CURRICULUM: ANNUAL PLANNER FOR MATHEMATICS - Y2

PNC PROGRAMME OF STUDY			SCHOOL PROGRESSION				
AOL	REF	STATEMENTS The children will be taught to	LEARNING OBJECTIVES To be able				
			1	2	3	★	
Number - number & place value	1	count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward	to count forwards in steps of 2 from 0	✓			✓
			to count backwards in steps of 2 to 0	✓			✓
			to count forwards in steps of 5 from 0		✓	✓	✓
			to count backwards in steps of 5 to 0		✓	✓	✓
			to count forwards in steps of 3 from 0		✓	✓	✓
			to count backwards in steps of 3 to 0		✓	✓	✓
			to count forwards in steps of 10 from any number	✓			✓
			to count backwards in steps of 10 from any number	✓			✓
	2	recognise the place value of each digit in a two-digit number (tens, ones)	to partition teen numbers into tens and ones		✓		
			to partition two-digit numbers into tens and ones		✓		
			to explain the value of each number in a two-digit number		✓	✓	
			to understand the principle of exchange between ones and tens		✓	✓	
			to partition two-digit numbers in different ways			✓	
			to understand that zero is a placeholder			✓	
	3	identify, represent and estimate numbers using different representations, including the number line	to estimate the number of objects in a set to 100	✓			
			to represent a number to 100 using the correct number of objects	✓			
			to represent a number to 100 using the correct base-10 equipment	✓			
			to identify a number to 100 on a number line	✓			
			to identify the number of objects by grouping and counting in twos	✓	✓		
			to identify the number of objects by grouping and counting in tens		✓	✓	
			to identify the number of objects by grouping and counting in fives		✓	✓	
	4	compare and order numbers from 0 up to 100; use <, > and = signs	to compare two sets of objects by stating which is larger or smaller		✓		
			to order 5 consecutive numbers to 100 in ascending and descending order		✓		✓
			to order 5 random numbers to 100 in ascending and descending order		✓		✓
			to use <, > and = to show that one set of objects is greater than, less than or equal to another to 100			✓	✓
			to use <, > and = to show that one number is greater than, less than or equal to another to 100			✓	✓

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 Y2 Unit progression 1-2-15-11-4-12 5-8-16-6-13-9 3-17-7-14-10-18



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number - number & pvalue	5	read and write numbers to at least 100 in numerals and in words	to read numerals to 100 to write numerals to 100 to read numbers as words to 100 and match to numerals to write numbers as words to 100 to read 3 digit numbers as numerals	✓ ✓ ✓	✓ ✓		
	6	use place value and number facts to solve problems.	to solve counting problems using objects and pictorial representations to solve place value problems involving money to solve addition and subtraction problems involving two-digit numbers	✓		✓ ✓	

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AOL	REF	STATEMENTS The children will be taught to	LEARNING OBJECTIVES To be able			4	5	6	7	★				
Number - addition and subtraction	7	solve problems with addition and subtraction using concrete objects and pictorial representations, including those involving numbers, quantities and measures	to solve simple addition problems using objects/base-10	to solve simple addition problems using pictures/base-10 icons	to solve simple subtraction problems using objects/base-10	to solve simple subtraction problems using pictures/base-10 icons	to solve 2-step addition and subtraction problems using objects/base-10	to solve 2-step addition and subtraction problems using pictures/base-10 icons	to solve addition and subtraction problems involving measures	✓	✓	✓		
	8	solve problems with addition and subtraction applying their increasing knowledge of mental and written methods	to solve simple addition problems using mental methods	to solve simple addition problems using written calculations (stage 3 & 4)	to solve simple subtraction problems using mental methods	to solve simple subtraction problems using written calculations (stage 3 & 4)					✓	✓	✓	✓
	9	recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100	to recall addition and subtraction facts to 10	to record number bonds to 10 as number sentences and fact families	to use addition and subtraction facts to 10 to complete missing number problems	to recall addition and subtraction facts to 20	to record number bonds to 20 as number sentences and fact families	to use addition and subtraction facts to 20 to complete missing number problems	to use number bonds to 10 to calculate associated facts to 100	to record multiple of 10 number bonds to 100 as number sentences and fact families	to use addition and subtraction facts to 100 (multiples of 10) to complete missing number problems	✓	✓	✓



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addition and subtraction Number -	10	add and subtract numbers using concrete objects, pictorial representations, and mentally, including: -a two-digit number and ones -a two-digit number and tens -two two-digit numbers -adding three one-digit numbers	to add a two-digit number and a one-digit number using objects/base-10	✓							
			to add a two-digit number and a one-digit number using pictures/base-10 icons	✓							
			to add a two-digit number and a one-digit number in my head with 100-square / number line support	✓					✓		
			to add a two-digit number and a one-digit number in my head	✓					✓		
			to subtract a one-digit number from a two-digit number using objects/base-10	✓							
			to subtract a one-digit number from a two-digit number using pictures/base-10 icons	✓							
			to subtract a one-digit number from a two-digit number in my head with 100-square / number line support	✓					✓		
			to subtract a one-digit number from a two-digit number in my head	✓					✓		
			to add a two-digit number and a multiple of 10 using base-10		✓						
			to add a two-digit number and a multiple of 10 using base-10 icons		✓						
			to add a two-digit number and a multiple of 10 in my head with 100-square / number line support			✓				✓	
			to add a two-digit number and a multiple of 10 in my head			✓				✓	
			to subtract a multiple of 10 from a two-digit number using base-10			✓					
			to subtract a multiple of 10 from a two-digit number using base-10 icons			✓					
			to subtract a multiple of 10 from a two-digit number in my head with 100-square / number line support				✓			✓	
			to subtract a multiple of 10 from a two-digit number in my head				✓			✓	
			to add 2 two-digit numbers using base-10					✓		✓	
			to add 2 two-digit numbers using base-10 icons						✓	✓	
			to add 2 two-digit numbers in my head with 100-square / number line support						✓	✓	✓
			to add 2 two-digit numbers in my head						✓	✓	✓
to subtract a two-digit number from a larger two-digit number using base-10						✓	✓				
to subtract a two-digit number from a larger two-digit number using base-10 icons						✓	✓				
to subtract a two-digit number from a larger two-digit number in my head with 100-square / number line support							✓	✓			
to subtract a two-digit number from a larger two-digit number in my head							✓	✓			
to add together three one-digit numbers using objects/base-10				✓							
to add together three one-digit numbers using pictures/base-10 icons				✓							
to add together three one-digit numbers in my head with 100-square / number line support				✓				✓			
to add together three one-digit numbers in my head				✓				✓			



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AOL	REF	STATEMENTS The children will be taught to	LEARNING OBJECTIVES To be able			4	5	6	7	★
addition and subtraction Number -	11	show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot	to explain and show that addition can be done in any order to put the biggest number first in an addition calculation to understand the subtraction cannot be done in any order			✓				✓
	12	recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.	to check the answer to an addition calculation by completing the related subtraction to check the answer to a subtraction calculation by completing the related addition to use the relationship between addition and subtraction to find the missing number in a number sentence					✓	✓	

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AOL	REF	STATEMENTS The children will be taught to	LEARNING OBJECTIVES To be able	8	9	10	★
Number - multiplication and division	13	recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers	to count forwards and back in steps of 2, 5 and 10 to recognise whether a number is odd or even to explain why a number is odd or even to recognise multiples of 10 to recognise multiples of 2 to recognise multiples of 5 to recall the multiplication facts for the 10x tables to recall the division facts for the 10x tables to recall the multiplication facts for the 2x tables to recall the division facts for the 2x tables to recall the multiplication facts for the 5x tables to recall the division facts for the 5x tables	✓ ✓ ✓ ✓ ✓ ✓			✓ ✓ ✓ ✓ ✓ ✓
	14	calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication ( $\times$ ), division ( $\div$ ) and equals ( $=$ ) signs	to answer a verbal multiplication question related to the x2, 5 and 10 and match it to the correct calculation to answer a verbal multiplication question related to the x2, 5 and 10 and record it as a number sentence using the $\times$ and $=$ signs accurately to answer a verbal division question related to the x2, 5 and 10 and match it to the correct calculation to answer a verbal division question related to the x2, 5 and 10 and record it as a number sentence using the $\div$ and $=$ signs accurately			✓ ✓ ✓ ✓	✓ ✓ ✓ ✓
	15	show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot	to explain and show that multiplication can be done in any order to understand the division cannot be done in any order		✓ ✓		

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AOL	REF	STATEMENTS The children will be taught to	LEARNING OBJECTIVES To be able				8	9	10	★
multiplication and division Number -	16	solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts.	to count in multiples of 2, 5 and 10 using grouped objects to relate to multiplication (stage 1)	✓				✓		
			to count in multiples using fingers to relate to multiplication (stage 2)	✓				✓		
			to count in multiples using representations alongside number lines to relate to multiplication (stage 2)	✓						
			to relate multiplication to repeated addition and demonstrate in relation to visual representations or an array (stage 2)	✓	✓					
			to match a calculation to a practical array (stage 3)		✓					
			to match a calculation to a pictorial array (stage 3)		✓					
			to model a calculation using a practical array (stage 3)		✓		✓			
			to model a calculation by drawing an array (stage 3)		✓		✓			
			to explore related multiplication facts of a given number by creating a variety of arrays and explaining the calculation that they show (stage 3)		✓		✓			
			to share objects equally between a small numbers of groups/people (stage 1)	✓						
			to share objects between 2 in order to find a half (stage 1)	✓						
			to group objects with an emphasis on equal groupings (stage 1)	✓						
			to count back in multiples of 2, 5 and 10 using representations alongside a number line to relate to repeated subtraction (stage 2)	✓						
			to organise groups into arrays (stage 2)		✓					
			to understand that $\div$ is equivalent to the fraction line so that $1 \div 2 = \frac{1}{2}$ (stage 2)		✓					
to explore division facts of a given number using arrays (stage 3)		✓		✓						
to be able to solve problems involving x2, x5 and x10 multiplication facts					✓					
to be able to solve problems involving x2, x5 and x10 related division facts					✓					

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			8	9	10	★
Number – fractions	17	recognise, find, name and write fractions $\frac{1}{3}$ , $\frac{1}{4}$ , $\frac{2}{4}$ and $\frac{3}{4}$ of a length, shape, set of objects or quantity	✓ ✓	✓ ✓	✓ ✓ ✓ ✓	✓ ✓ ✓ ✓
	18	write simple fractions for example, $\frac{1}{2}$ of 6 = 3 and recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$ .	✓	✓		✓



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AOL	REF	STATEMENTS The children will be taught to	LEARNING OBJECTIVES To be able		11	12	13	14	★
Measurement	19	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	to estimate the length/height of an object	✓					
			to choose an appropriate measuring device to measure the length/height of an object	✓					
			to measure the length/height of an object to the nearest m/cm using metre sticks and rulers	✓					
			to use standard abbreviations for metre and centimetre	✓					
			to estimate the mass of an object		✓				
			to choose an appropriate measuring device to weigh the mass of an object		✓				
			to weigh the mass of an object to the nearest kg/g using scales		✓				
			to use standard abbreviations for kilograms and grams		✓				
			to estimate the temperature of a liquid				✓		
			to choose an appropriate measuring device to take the temperature of a liquid				✓		
			to measure the temperature of a liquid to the nearest °C using a thermometer				✓		
			to use standard abbreviations for degrees centigrade				✓		
			to estimate the capacity of a liquid					✓	
			to choose an appropriate measuring device to measure the capacity of a liquid					✓	
			to measure the mass of a liquid to the nearest l/ml using a measuring container					✓	
			to use standard abbreviations for litres and millilitres					✓	
	20	compare and order lengths, mass, volume/capacity and record the results using >, < and =	to compare two objects by stating which is longer or shorter	✓					
			to order 5 objects from shortest to longest and vice versa	✓					
			to use <, > and = to show that an object is longer than, shorter than or equal to another	✓					
			to compare two objects by stating which is heavier or lighter		✓				
			to order 5 objects from heaviest to lightest and vice versa		✓				
			to use <, > and = to show that an object is heavier than, lighter than or equal to another		✓				
			to compare the volume of liquid in 2 identical containers by stating which has more and which has less					✓	
			to order 5 containers from the most to the least amount of liquid and vice versa					✓	
			to use <, > and = to show that a volume of liquid is less than, more than or equal to another					✓	
			to compare measures using simple multiples such as half as heavy and twice as long					✓	



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AOL	REF	STATEMENTS The children will be taught to	LEARNING OBJECTIVES To be able			11	12	13	14	★
Measurement	21	recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value	to recognise all coins to £2	to recognise all notes to £50	to recognise and use the symbols for pounds (£) and pence (p)		✓			✓
			to read and say amounts using pounds and pence	to write amounts using pounds and pence	to combine coins to make totals to 20p		✓		✓	✓
			to combine multiple of 10 coins to make totals to £1	to combine multiple of 10 coins to make totals to £10	to combine coins to make totals to £5		✓		✓	✓
									✓	✓
	22	find different combinations of coins that equal the same amounts of money	to find different ways to combine coins to make amounts to 20p	to find different ways to combine coins to make amounts to £1	to find different ways to combine coins to make amounts to £5				✓	✓
	23	solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change	to solve simple addition problems involving money (p)	to solve simple addition problems involving money (£)	to solve simple subtraction problems involving money (p)		✓		✓	✓
			to solve simple subtraction problems involving money (£)	to give change in pence				✓	✓	✓
	24	compare and sequence intervals of time	to identify how long every day activities take to complete	to compare two different intervals of time	to be able to sequence intervals of time throughout the day	✓				
						✓				
						✓				

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AOL	REF	STATEMENTS The children will be taught to	LEARNING OBJECTIVES To be able	11	12	13	14	★
Measurement	25	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	to tell and say the time at o'clock, half past and quarter past the hour to write the time at o'clock, half past and quarter past the hour to draw hands on a blank clock face to show o'clock, half past and quarter past an hour to tell and say the time at five minute intervals past the hour to write the time at five minute intervals past the hour to draw hands on a blank clock to show the time at five minute intervals past an hour to tell and say the time at five minute intervals to the hour to write the time at five minute intervals to the hour to draw hands on a blank clock to show the time at five minute intervals to an hour	✓				✓
				✓				✓
	26	know the number of minutes in an hour and the number of hours in a day.	to say how many minutes there are in an hour to say how many hours there are in a day	✓				
				✓				



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AOL	REF	STATEMENTS The children will be taught to	LEARNING OBJECTIVES To be able				
			15	16	17	★	
Geometry – properties of shape	27	identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line	to look at objects and pictures of 2-D shapes and name them – circle, triangle, square, rectangle, quadrilateral, pentagon, hexagon, octagon	✓			
			to describe the properties of 2-D shapes in terms of number of sides and corners and whether they are regular or irregular	✓			
			to identify the line(s) of symmetry in a 2-D shape	✓			
			to read the names of 2-D shapes - circle, triangle, square, rectangle, quadrilateral, pentagon, hexagon, octagon	✓			
		to spell and write the names of 2-D shapes - circle, triangle, square, rectangle, pentagon, hexagon, octagon	✓				
		to draw straight lines accurately	✓				
		to draw shapes using straight lines accurately	✓				
	28	identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces	to look at objects and pictures of 3-D shapes and name them – sphere, cube, cuboid, cone, pyramid, cylinder, prism			✓	
			to be able to describe the properties of 3-D shapes in terms of number of edges, vertices and faces			✓	
			to read the names of 3-D shapes - sphere, cube, cuboid, cone, pyramid, cylinder, prism			✓	
			to spell and write the names of 3-D shapes - sphere, cube, cuboid, cone, pyramid, cylinder, prism			✓	
	29	identify 2-D shapes on the surface of 3-D shapes [for example, a circle on a cylinder and a triangle on a pyramid]	to be able to identify the 2-D shapes on the faces of 3-D shapes e.g. 6 x squares on a cube			✓	
	30	compare and sort common 2-D and 3-D shapes and everyday objects.	to find examples of specific 2-D shapes from a group of everyday objects	✓			
			to compare and sort 2-D shapes according to their properties	✓			
			to find examples of specific 3-D shapes from a group of everyday objects			✓	
			to compare and sort 3-D shapes according to their properties			✓	



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			15	16	17	★
Position and direction Geometry –	31	order and arrange combinations of mathematical objects in patterns and sequences		✓		
				✓		
	32	use mathematical vocabulary to describe position, direction and movement, including movement in a straight line and distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anti-clockwise).		✓		
				✓		
				✓		
				✓		
				✓		
				✓		
				✓		



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Statistics	33	interpret and construct simple pictograms, tally charts, block diagrams and simple tables	to populate a simple pictogram to represent the results of a data collection to populate a tally chart to represent the results of a data collection to populate a block diagram to represent the results of a data collection to represent data on a pictogram using 2:1, 5:1 and 10:1 correspondence to construct and populate a simple pictogram to represent the results of a data collection to construct and populate a tally chart to represent the results of a data collection to construct and populate a block diagram to represent the results of a data collection	✓ ✓ ✓ ✓ ✓ ✓	✓ ✓ ✓
	34	ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity	to be able to answer simple counting questions about a pictogram, tally or block diagram to be able to sort and order the categories of a chart by quantity	✓ ✓	✓ ✓
	35	ask and answer questions about totalling and comparing categorical data.	to be able to answer simple totalling and comparing about a pictogram, tally or black diagram to be able to ask sensible questions about a pictogram, tally or black diagram	✓ ✓	✓ ✓

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