

**NYCC - APP Grid Curriculum 2014 Year 2 and 3 (page 1 of 2)**

<b>Strand</b>	<b>Yr2</b>	<b>Yr3</b>
<b><u>NUMBER: Number and place value</u></b>		
Counting	count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward	count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number
Read and write numbers	read and write numbers to at least 100 in numerals and in words	read and write numbers up to a 1000 in numerals and in words
Comparing and ordering numbers	compare and order numbers from 0 up to 100; use <, > and = signs	compare and order numbers up to 1000
Place value <i>(see also fractions, decimals &amp; percentage)</i>	recognise the place value of each digit in a two-digit number (tens, ones)	recognise the place value of each digit in a three-digit number (hundreds, tens, ones)
Identify, represent, estimate and round	identify, represent and estimate numbers using different representations, including the number line	identify, represent and estimate numbers using different representations
Solve problems	use place value and number facts to solve problems	solve number problems and practical problems involving these ideas
<b><u>NUMBER: Addition, Subtraction, Multiplication and Division</u></b>		
Addition, subtraction, multiplication and division	<p>add and subtract numbers using concrete objects, pictorial representations, and mentally, including:</p> <ul style="list-style-type: none"> <li>-a two-digit number and ones</li> <li>-a two-digit number and tens</li> <li>-two two-digit numbers</li> <li>-adding three one-digit numbers</li> </ul> <p>show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot</p> <p>calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (<math>\times</math>), division (<math>\div</math>) and equals (=) signs</p> <p>show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot</p>	<p>add and subtract numbers mentally, including:</p> <ul style="list-style-type: none"> <li>a three-digit number and ones;</li> <li>a three-digit number and tens ;</li> <li>a three-digit number and hundreds</li> </ul> <p>add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction</p> <p>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</p>
Derive and recall $+ \rightarrow -$	<p>recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100</p> <p>recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers</p>	recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables
Solving problems	<p>solve problems with addition and subtraction:</p> <ul style="list-style-type: none"> <li>--using concrete objects and pictorial representations, including those involving numbers, quantities and measures</li> <li>--applying their increasing knowledge of mental and written methods</li> </ul> <p>solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts</p>	<p>solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction</p> <p>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</p>
Checking	recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems	estimate the answer to a calculation and use inverse operations to check answers
<b><u>NUMBER: Fractions (including decimals and percentages)</u></b>		
Recognise and find fractions	<p>recognise, find, name and write fractions <math>\frac{1}{3}</math>, <math>\frac{1}{4}</math>, <math>\frac{2}{4}</math> and <math>\frac{3}{4}</math> of a length, shape, set of objects or quantity</p> <p>write simple fractions e.g. <math>\frac{1}{2}</math> of 6 = 3</p>	<p>recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators</p> <p>recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators</p>
Count, compare and order  Place value and rounding		<p>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</p> <p>compare and order unit fractions, and fractions with the same denominator</p>
Equivalence	recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$	recognise and show, using diagrams, equivalent fractions with small denominators
Calculating		add and subtract fractions with the same denominator within one whole (e.g. $\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$ )
Solve problems		solve problems that involve all of the above

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<b>Strand</b>	<b>Yr2</b>	<b>Yr3</b>
<b>MEASUREMENT</b>		
Estimate, measure, weigh, compare and convert units	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  compare and order lengths, mass, volume/capacity and record the results using >, < and =	measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)
Perimeter, area, volume and capacity		measure the perimeter of simple 2-D shapes
Money	recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value  find different combinations of coins that equal the same amounts of money  solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change	add and subtract amounts of money to give change, using both £ and p in practical contexts
Time	compare and sequence intervals of time  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  know the number of minutes in an hour and the number of hours in a day	tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks  estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hours; use vocabulary such as o' clock, a.m./p.m., morning, afternoon, noon and midnight  know the number of seconds in a minute and the number of days in each month, year and leap year  compare durations of events (for example to calculate the time taken by particular events or tasks)
<b>GEOMETRY: Properties of shapes; position and direction</b>		
Properties of shapes	identify and describe the properties of 2-D shapes, including the number of sides and symmetry in a vertical line  identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces  identify 2-D shapes on the surface of 3-D shapes, ( for example a circle on a cylinder and a triangle on a pyramid)  compare and sort common 2-D and 3-D shapes and everyday objects	draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them  recognise angles as a property of shape or a description of a turn  identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn;  identify whether angles are greater than or less than a right angle  identify horizontal and vertical lines and pairs of perpendicular and parallel lines
Position, direction, motion	order and arrange combinations of mathematical objects in patterns  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)	
<b>STATISTICS</b>		
	interpret and construct simple pictograms, tally charts, block diagrams and simple tables  ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity  ask & answer questions about totalling & comparing categorical data	interpret and present data using bar charts, pictograms and tables  solve one-step and two-step questions (e.g. 'How many more?' and 'How many fewer?' ) using information presented in scaled bar charts and pictograms and tables

<b>Strand</b>	<b>Emerging</b>	<b>Meeting Expectations</b>	<b>Exceeding Expectations</b>
NUMBER: Number and place value			
NUMBER: Addition, Subtraction, Multiplication & Division			
NUMBER: Fractions (including decimals and percentages)			
MEASUREMENT			
GEOMETRY: Properties of shapes; position and direction			
STATISTICS			
<b>Overall</b>	Y2 emerging; 14 points	Y2 expecting; 15 points	Y2 exceeding; 16 points
	Y3 emerging; 17 points	Y3 expecting; 18 points	Y3 exceeding; 19 points