Thomas Russell Infants' School

	Place Value	Addition/Subtraction	Multiplication/Division	Fractions
Year 1	- Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number. - Count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens. - Given a number, identify one more and one less. - Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least. - Read and write numbers from 1-20 in numerals and words.	- Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs. - Represent and use number bonds and related subtraction facts within 20. - Add and subtract one-digit and two-digit numbers to 20, including zero. - Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = __ - 9	- Solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher.	- Recognise, find and name a half as one of two equal parts of an object, shape or quantity. - Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity.

Year 2	- Count in steps 2, 3 and 5 from 0, and in tens from any number, forward and backwards.
	- Recognise the place value of each digit in a two-digit number (tens, ones).
	- Identify, represent and estimate numbers using different representations, including the number line.
	- Compare and order numbers from 0 up to 100; use <. > and = signs.
	- Read and write numbers to at least 100 in numerals and in words.
	- Use place value and number facts to solve problems.
		- 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.
		- Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100.
		- 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.
		- Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot.
		- Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.
			- Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers.
			- Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (x), division (÷) and equals (=) signs.
			- Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot.
			- Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts.
				- 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.
				- 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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	Measurement	Geometry – properties of shape	Geometry – position and direction

Year 1	- Compare, describe and solve practical problems for:
	  - lengths and heights (for example, long/short, longer/shorter, tall/short, double/half).
	  - mass/weight (for example, heavy/light, heavier than/lighter than).
	  - capacity and volume (for example, full/empty, more than, less than, half, half full, quarter).
	  - time (for example, quicker, slower, earlier, later).
	- Measure and begin to record the following:
	  - lengths and heights.
	  - mass/weight.
	  - capacity and volume.
	  - time (hours, minutes, seconds).
	- Recognise and know the value of different denominations of coins and notes.
	- Sequence events in chronological order using language (for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening).
	- Recognise and use language relating to dates, including days of the week, weeks, months and years.
	- Tell the time to the hour and half past the hour and draw the hands on a clock face to show these times.
		- Recognise and name common 2-D and 3-D shapes, including:
		  - 2-D shapes (for example, rectangles (including squares), circles and triangles).
		  - 3-D shapes (for example, cuboids (including cubes), pyramids and spheres).
			- Describe position, direction and movement, including whole, half, quarter and three-quarter turns.

Year 2	- 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 =. - 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. - 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.	- Identify and describe the properties of 2-D shapes, including the number of sides and line 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.	- Order and arrange combinations of mathematical objects in patterns and sequences. - 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).
Statistics			
Year 1			
Year 2	- 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 and answer questions about totalling and comparing categorical data.		