Year R Maths Objectives

In order to meet the Early Learning Goals at the end of Year R children must be able to:

Numbers	
1	Count reliably with numbers from 1-20, place them in order and say which number is one more or one less than a given number.
2	Using quantities and objects add and subtract two single digit numbers and count on or back to find the answer.
3	Solve problems, including doubling, halving and sharing.
Shape, space and measure	
1	Use everyday language to talk about size, weight, capacity, position, distance, time and money to compare quantities and objects and to solve problems.
2	Recognise, create and describe patterns.
3	Explore characteristics of everyday objects and shapes and use mathematical language to describe them.

Year 1 Maths Objectives

(Taken from the National Curriculum 2014)

Number – number and place value	
1	Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number
2	Count, read and write numbers to 100 in numerals; count in multiples of 2s, 5s and 10s
3	Given a number, identify one more and one less
4	Identify and represent numbers using objects and pictorial representation including the number line, and use the language of: equal to, more than, less than (fewer), most , least.
5	Read and write numbers from 1 to 20 in numerals and words.
Number – addition and subtraction	
1	read, write and interpret mathematical statements involving addition (+), subtraction (–) and equals (=) signs
2	represent and use number bonds and related subtraction facts within 20
3	add and subtract one-digit and two-digit numbers to 20, including zero
4	solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = ☐ – 9.
Number – multiplication and division	
1	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.
Number – fractions	
1	recognise, find and name a half as one of two equal parts of an object, shape or quantity
2	recognise, find and name a quarter as one of four equal parts of an object, shape or quantity.

Measurement	
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]
2	measure and begin to record the following: ▪ lengths and heights ▪ mass/weight ▪ capacity and volume ▪ time (hours, minutes, seconds)
3	recognise and know the value of different denominations of coins and notes
4	sequence events in chronological order using language [for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening]
5	recognise and use language relating to dates, including days of the week, weeks, months and years
6	tell the time to the hour and half past the hour and draw the hands on a clock face to show these times.
Geometry – properties of shape	
1	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].
Geometry – position and direction	
1	describe position, direction and movement, including whole, half, quarter and three-quarter turns.

Year 2 Maths Objectives

(Taken from the National Curriculum 2014)

Number – number and place value	
1	count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward
2	recognise the place value of each digit in a two-digit number (tens, ones)
3	identify, represent and estimate numbers using different representations, including the number line
4	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
5	use place value and number facts to solve problems
Number – addition and subtraction	
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
2	recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100
3	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
4	show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot
5	recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.

Number – multiplication and division	
1	recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers
2	calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs
3	show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot
4	solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts.
Number – fractions	
1	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
2	write simple fractions for example, $\frac{1}{2}$ of 6 = 3 and recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$.
Measurement	
1	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
2	compare and order lengths, mass, volume/capacity and record the results using >, < and =
3	recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value
4	find different combinations of coins that equal the same amounts of money
5	solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change
6	compare and sequence intervals of time
7	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
8	know the number of minutes in an hour and the number of hours in a day.

Geometry – properties of shape	
1	identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line
2	identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces
3	identify 2-D shapes on the surface of 3-D shapes [for example, a circle on a cylinder and a triangle on a pyramid]
4	compare and sort common 2-D and 3-D shapes and everyday objects.
Geometry – position and direction	
1	order and arrange combinations of mathematical objects in patterns and sequences
2	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).