NC2014 MATHEMATICS LIST
OBJECTIVES and CHILD SPEAK TARGETS

MATHEMATICS Key Stage 1 Year 2

Key Stage	Strand	Objective	Child Speak Target	Greater Depth Target
KS 1 Y2	Number Place Value			
KS 1 Y2	Number Place Value	Count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward. ↳ **GD objective:** Confidently and quickly count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward.	*I can count forward and backward in steps of 2, 3, and 5 from 0, and make jumps in tens from any number.*	*I can count forward and backward confidently in steps of 2, 3, and 5 from 0, and make jumps in tens from any number.*
KS 1 Y2	Number Place Value	[EXS] [KEY] Partition any two-digit number into different combinations of tens and ones, explaining their thinking verbally, in pictures or using apparatus. ↳ **GD objective:** Recognise the place value of each digit in a two-digit number (tens, ones) and use this to solve calculations.	*I know what each digit means in two-digit numbers such as 24.*	*I know what each digit means in two-digit numbers such as 24 and I can use this to solve calculations.*
KS 1 Y2	Number Place Value	[EXS] [GDS] [KEY] Read scales (such as number lines or a graph axis) in divisions of ones, twos, fives and tens. ↳ **GD objective:** Read scales (such as number lines or a graph axis) where not all numbers on the scale are given and estimate points in between.	*I can find and show numbers on a number line.*	*I can accurately find and show numbers, money and measures on a number line.*
KS 1 Y2	Number Place Value	Compare and order numbers from 0 up to 100. ↳ **GD objective:** Compare and order numbers from 0 up to 100 in different contexts.	*I can order numbers up to 100 and tell you which numbers are bigger or smaller.*	*I can order numbers, money and different measurements up to 100 and tell you which numbers are bigger or smaller.*
KS 1 Y2	Number Place Value	Use greater than, less than and = signs. ↳ **GD objective:** Confidently use greater than, less than and = signs to compare numbers, measures and money.	*I use the greater than, less than and equals signs in maths and know what they mean.*	*I use the greater than, less than and equals signs in maths and know what they mean when comparing numbers, measures and money.*
KS 1 Y2	Number Place Value	Read and write numbers to at least 100 in numerals and in words. ↳ **GD objective:** Independently read and write numbers to at least 100 in numerals and in words.	*I can read and write numbers to 100 in digits and words.*	*I can read and write numbers to 100 in digits and words without help.*
KS 1 Y2	Number Place Value	[GDS] Use place value and number facts to solve problems. ↳ **GD objective:** Use reasoning about numbers and relationships to solve more complex problems and explain their thinking (e.g. 29+17=15+?; together Jack and Sam have £14. Jack has £2 more than Sam. How	*I solve problems using number facts such as 18+2=20 and what I know about the value of digits in a number.*	*I solve problems using number facts in different contexts such as 18cm+2cm=20cm and what I know about the value of digits in a number.*

		much money does Sam have? Etc.)		
KS 1 Y2	**Addition Subtraction**			
KS 1 Y2	Addition Subtraction	Solve problems with addition and subtraction using concrete objects and pictorial representations, including those involving numbers, quantities and measures. ↳ **GD objective:** Solve more difficult problems with addition and subtraction using concrete objects and pictorial representations, including those involving numbers, quantities and measures.	*I answer addition and subtraction maths problems using objects or pictures to help me work it out.*	*I answer more difficult addition and subtraction maths problems using objects or pictures to help me work it out.*
KS 1 Y2	Addition Subtraction	[GDS] Solve problems with addition and subtraction applying their increasing knowledge of mental and written methods. ↳ **GD objective:** Solve unfamiliar word problems that involve more than one step (e.g. 'which has most biscuits, 4 packets of biscuits with 5 in each or 3 packets of biscuits with 10 in each packet?')	*I can solve addition and subtraction problems and work out how I answer it on paper or show you how I did it in my head by explaining step by step.*	*I can solve addition and subtraction problems using money and measures, and work out how I answer it on paper or show you how I did it in my head by explaining step by step.*
KS 1 Y2	Addition Subtraction	[EXS] [KEY] Recall all number bonds to and within 10 and use these to reason with and calculate bonds to and within 20, recognising other associated additive relationships (e.g. If 7+3=10, then 17+3=20; if 7-3=4, then 17-3=14; leading to if 14+3=17, then 3=14=17, 17-14=3 and 17-3=14.) ↳ **GD objective:** Solve problems with addition and subtraction rapidly recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100.	*I answer problems with addition and subtraction using my number facts to 20 and other number facts up to 100.*	*I answer problems with addition and subtraction quickly, using my number facts to 20 and other number facts up to 100.*
KS 1 Y2	Addition Subtraction	Add and subtract numbers using concrete objects, pictorial representations, and mentally, including a two-digit number and ones. ↳ **GD objective:** Solve real-life problems by adding and subtracting numbers using concrete objects, pictorial representations, and mentally, including a two-digit number and ones.	*I can add and subtract numbers such as 34 - 8 or 52 + 5 using objects or pictures to help.*	*I can solve real-life problems by adding and subtracting numbers such as 31 - 9 or 56 + 5 using objects or pictures to help.*
KS 1 Y2	Addition Subtraction	[EXS] [KEY] Add and subtract any 2 two-digit numbers using an efficient strategy, explaining their method verbally, in pictures or using apparatus (e.g. 48+35; 72-17). ↳ **GD objective:** Solve real-life problems by adding and subtracting numbers using concrete objects, pictorial representations, and mentally, including a two-digit number and tens.	*I add and subtract two-digit numbers using objects to help me.*	*I can solve real-life problems by adding and subtracting two-digit numbers using objects to help me.*
KS 1 Y2	Addition Subtraction	Add and subtract numbers using concrete objects, pictorial representations, and mentally, including two two-digit numbers. ↳ **GD objective:** Add and subtract numbers in different contexts, using concrete objects, pictorial representations, and mentally, including two two-digit numbers.	*I can add or subtract numbers such as 42 - 22 or 56 + 29 using objects or pictures to help me.*	*I can add or subtract money and measures such as 42g - 22g or 56p + 29p using objects or pictures to help me.*
KS 1 Y2	Addition	Add and subtract numbers using concrete objects, pictorial representations, and mentally, including adding three one-digit numbers.	*I can add or subtract three numbers such as 2 + 5 +*	*I can add or subtract three numbers such as 2 + 7 +*

	Subtraction	↳ **GD objective:** Rapidly add and subtract numbers using concrete objects, pictorial representations, and mentally, including adding three one-digit numbers.	*9.*	*9 quickly.*
KS 1 Y2	Addition Subtraction	Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot. ↳ **GD objective:** Solve a range of problems demonstrating that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot.	*I know that adding two numbers together can be done in any order but subtracting numbers can only be done in one order.*	*I can solve problems that show adding two numbers together can be done in any order but subtracting numbers can only be done in one order.*
KS 1 Y2	Addition Subtraction	Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems. ↳ **GD objective:** Confidently use the inverse relationship between addition and subtraction to accurately check calculations and solve missing number problems.	*I can check my answers or solve missing number problems by doing an inverse check.*	*I can confidently check my answers accurately or solve missing number problems by doing an inverse check.*
KS 1 Y2	Multiplication Division			
KS 1 Y2	Multiplication Division	[EXS] [GDS] [KEY] Recall multiplication and division facts for 2, 5 and 10 and use them to solve simple problems, demonstrating an understanding of commutativity as necessary. ↳ **GD objective:** Recall and use multiplication facts for 2, 5 and 10 and make deductions outside known multiplication facts.	*I know my 2 and 5 and 10 times tables by heart and can tell whether a number is odd or even.*	*I know my 2 and 5 and 10 times tables by heart, can recall the answer quickly and can tell whether a number is odd or even.*
KS 1 Y2	Multiplication Division	Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (✕), division (÷) and equals (=) signs. ↳ **GD objective:** Solve a range of problems using mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (x), division (÷) and equals (=) signs.	*I use multiplication (✗), division (÷) and equals (=) signs when writing out my times tables.*	*I can solve mathematical problems using multiplication (x), division (÷) and equals (=) signs.*
KS 1 Y2	Multiplication Division	Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot. ↳ **GD objective:** Solve a range of problems demonstrating that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot.	*I know that the multiplication of two numbers can be done in any order, but that the division of numbers can only be done in one order.*	*I can solve problems to show that multiplication of two numbers can be done in any order, but that the division of numbers can only be done in one order.*
KS 1 Y2	Multiplication Division	Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts. ↳ **GD objective:** Solve problems in different subjects involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts.	*I can solve multiplication and division problems using times table facts and objects or pictures to help me.*	*I can solve multiplication and division problems in different subjects, using times table facts and objects or pictures to help me.*

KS 1 Y2	Fractions			
KS 1 Y2	Fractions	[EXS] [KEY] Identify 1/4, 1/3, 1/2, 2/4, 3/4 of a number or shape, and know that all parts must be equal parts of the whole. ↳ **GD objective:** Solve practical problems by finding and writing fractions 1/3, 1/4, 2/4 and 3/4 of a length, shape, set of objects or quantity.	*I can find 1/3 or 1/4 or 2/4 or 3/4 of a shape, length or set of objects.*	*I can solve practical problems by finding and writing 1/3 or 1/4 or 2/4 or 3/4 of a shape, length or set of objects.*
KS 1 Y2	Fractions	Write simple fractions for example, 1/2 of 6 = 3 and recognise the equivalence of 2/4 and 1/2. ↳ **GD objective:** Write simple fractions for example, 1/4 of 8 = 2 and recognise the equivalence of 2/4 and 1/2 and relate this to real-life situations.	*I can write simple fractions sentences such as 1/2 of 6 = 3 and know that 2/4 equals 1/2.*	*I can solve real-life problems involving writing simple fractions sentences such as 1/4 of 8 = 2 and knowing that 2/4 equals 1/2.*
KS 1 Y2	Measurement			
KS 1 Y2	Measurement	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. ↳ **GD objective:** Solve a range of problems and investigations involving choosing and using appropriate standard units to estimate and measuring 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.	*I can choose, use and measure the correct unit to measure length or height in any direction (m/cm); weight (kg/g); temperature (°C); or capacity (litres/ml).*	*I can solve a range of problems and investigations by choosing, using and measuring the correct unit to measure length or height in any direction (m,cm); weight (kg,g); temperature (°C); or capacity (litres,ml).*
KS 1 Y2	Measurement	Compare and order lengths, mass, volume/capacity and record the results using symbols for greater than, less than and =. ↳ **GD objective:** Compare and order lengths, mass, volume,capacity and record the results using symbols for greater than, less than and = across a range of subjects.	*I can compare and order lengths, weight and capacity and then record the results using symbols for greater than, less than and equals.*	*I can compare and order lengths, weight and capacity and then record the results using symbols for greater than, less than and equals across a range of subjects.*
KS 1 Y2	Measurement	Recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value. ↳ **GD objective:** Solve practical problems using symbols for pounds (£) and pence (p); combine amounts to make a particular value.	*I know and use the symbols for pounds (£) and pence (p) and can add together different amounts of money, such as 253p and £2.*	*I can solve practical problems using symbols for pounds (£) and pence (p) and can add together different amounts of money, such as 253p and £2.*
KS 1 Y2	Measurement	[EXS] [KEY] Use different coins to make the same amount. ↳ **GD objective:** Find all of the different combinations of coins that equal the same amounts of money in a systematic way.	*I can find different combinations of coins that equal the same amounts of money.*	*I can find all of the different combinations of coins that equal the same amounts of money using a system.*
KS 1 Y2	Measurement	Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change. ↳ **GD objective:** Solve more complex problems in a practical context involving addition and subtraction of money of the same unit, including giving change.	*I have solved money problems such as how much change do I get from 50p if I buy an apple for 35p?*	*I have solved more difficult money problems such as how much change do I get from £1.00 if I buy an apple for 37p?*
KS 1 Y2	Measurement	Compare and sequence intervals of time.	*I can put the time of events in order.*	*I can put the time of events in order to solve real-life*

		↳ **GD objective:** Compare and sequence intervals of time to solve real-life problems.		*problems.*
KS 1 Y2	Measurement	[EXS] [GDS] [KEY] Read the time on a clock to the nearest 15 minutes. ↳ **GD objective:** Read the time on a clock to the nearest 5 minutes.	*I can tell and write the time, including quarter past/to the hour and draw the hands on a clock face to show these times.*	*I can 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 confidently*
KS 1 Y2	Measurement	Know the number of minutes in an hour and the number of hours in a day. ↳ **GD objective:** Solve real-life problems involving the number of minutes in an hour and the number of hours in a day.	*I know there are 60 minutes in an hour and 24 hours in a day.*	*I can solve real-life problems involving the number of minutes in an hour and hours in a day.*
KS 1 Y2	Shape			
KS 1 Y2	Shape	[EXS] [GDS] [KEY] Name and describe properties of 2-D shapes, including the number of sides, vertices, edges, faces and lines of symmetry. ↳ **GD objective:** Describe similarities and differences of 2-D shapes, using their properties (e.g. that two different 2-D shapes both have one line of symmetry).	*I can describe the properties of some 2-D shapes, including the number of sides they have and facts about their symmetry.*	*I investigate and compare the properties of some 2-D shapes, including the number of sides they have and facts about their symmetry.*
KS 1 Y2	Shape	[EXS] [GDS] [KEY] Name and describe properties of 3-D shapes, including the number of sides, vertices, edges, faces and lines of symmetry. ↳ **GD objective:** Describe similarities and differences of 3-D shapes, using their properties (e.g. that a cube and a cuboid have the same number of edges faces and vertices but different dimensions).	*I can describe the properties of some 3-D shapes, including the number of edges, faces and vertices they have.*	*I can investigate and compare the properties of some 3-D shapes, including the number of edges, faces and vertices they have.*
KS 1 Y2	Shape	Identify 2-D shapes on the surface of 3-D shapes [for example, a circle on a cylinder and a triangle on a pyramid]. ↳ **GD objective:** Identify 2-D shapes on the surface of 3-D shapes and describe how they have been rotated to fit.	*I can tell you which 2-D shapes appear as the faces on 3-D shapes, such as triangles on a pyramid.*	*I can tell you which 2-D shapes appear as the faces on 3-D shapes and say how they have been turned to fit*
KS 1 Y2	Shape	Compare and sort common 2-D and 3-D shapes and everyday objects. ↳ **GD objective:** Compare and classify common 2-D and 3-D shapes and everyday objects according to their geometric properties, and can explain their choices.	*I can compare 2-D and 3-D shapes with everyday objects around me.*	*I can compare and classify2-D and 3-D shapes with everyday objects around me based on their properties and can explain my choices.*
KS 1 Y2	Position			
KS 1 Y2	Position	Order and arrange combinations of mathematical objects in patterns and sequences. ↳ **GD objective:** Order and arrange combinations of mathematical objects in patterns and sequences and begin to spot rules.	*I can order combinations of mathematical objects in patterns and sequences.*	*I can order combinations of mathematical objects in patterns and sequences, and I have begun to spot mathematical rules.*
KS 1 Y2	Position	Use mathematical vocabulary to describe position, direction and movement, including movement in a straight line and distinguishing	*I can describe my position, direction and movement, including describing turns as quarter, half and three-*	*I can describe the position, direction and movement of any object, including describing turns as quarter,*

		between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anti-clockwise). ↳ **GD objective:** Independently use mathematical vocabulary to describe position, direction and movement of any object, 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).	*quarter turns in clockwise and anti-clockwise directions.*	*half and three-quarter turns in clockwise and anti-clockwise directions, without support.*
KS 1 Y2	Statistics			
KS 1 Y2	Statistics	Interpret and construct simple pictograms, tally charts, block diagrams and simple tables. ↳ **GD objective:** Confidently interpret and construct simple pictograms, tally charts, block diagrams and simple tables across different subject areas.	*I can read and construct picture graphs, tally charts and tables.*	*I can confidently read and construct picture graphs, tally charts and tables in different subject areas*
KS 1 Y2	Statistics	Ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity. ↳ **GD objective:** Ask and answer questions by counting the number of objects in each category and sorting the categories by quantity, using this to solve practical problems.	*I can sort objects into categories and tell you how many objects are in each category and show which category has the most.*	*I can solve practical problems by sorting objects into categories and telling you how many objects are in each category and show which category has the most.*
KS 1 Y2	Statistics	Ask and answer questions about totalling and comparing categorical data. ↳ **GD objective:** Ask and answer questions to solve real-life problems about totalling and comparing categorical data.	*I work on sorting objects and can answer questions about the groups of objects I have sorted.*	*I work on sorting objects and can answer questions about the groups of objects I have sorted to solve real-life problems.*