Fortuna Primary School
Stage 1 Maths (Equivalent to Y1 National Curriculum)

Prerequisite Knowledge

Before starting Stage 1 pupils should be secure at:

- Counting and ordering numbers to 20.
- Counting on and back from numbers to 20 to find the total of a pair of single-digit numbers.
- Recognising when two quantities are different (may not use comparative language).
- Using mathematical language to describe shapes.
- Creating simple patterns.
- Using everyday language to talk about measures of time, length, weight, capacity and money.

End of Stage Success Criteria

When a child has progressed through Stage 1 they should:

- Be able to count confidently forwards and backwards from values beyond 100.
- Be able to answer 1 more/less questions for numbers to at least 100 quickly and accurately.
- Know number bonds to 20.
- Be able to use concrete objects to find the missing number in simple addition and subtraction maths stories.
- Be able to mentally double numbers to 10.
- Halve and double a set of concrete objects.
- Count confidently in multiples of 2, 5 and 10.
- Show multiplication as repeat addition using arrays.
- Be able to use concrete objects to solve simple word problems involving number, shape and measures.
- Be able to represent numbers in a variety of ways.
- Be able to write values to 100 in numerals and values to 20 in words.
- Recognise, be able to name and sort common 2D and 3D shapes.
- Measure length, mass and volume using non-standard measures

Key for Progression statements

(*) reworded from Programme of Study statement (+) new statements (^) split Programme of Study statements **NAHT Assessment Framework key performance indicators**

Arithmetic 1			
Objective	**Beginning**	**Developing**	**Secure**
1.1.a.1 (Counting) Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number	I can count forwards from 1 to 100.		I can count forwards from 94 to 120 and backwards from 125. *and then…* I can count forwards from 180 to 220 and backwards from 205.
	At Stage 1 pupils should be counting everyday both within and beyond the allocated time for mathematics. Counting should be done in a variety of forms such as counting songs, counting out objects, measuring in non-standard units, number grid work and landmarked/non-landmarked number lines.		
1.1.a.2 (Counting) Given a number, identify one more and one less	I can answer 9 when asked 'I have eaten 8 grapes and eat one more. How many have I eaten?'	I can answer 27 when asked 'I have 28 grapes and eat one of them. How many are left?'	I can answer 27 when asked 'I have 29 grapes and eat two of them. How many are left?'
1.1.b.1 (Representing Numbers) Read and write numbers to 100 in numerals (^)	I can record familiar numbers and identify numbers beyond 20.		I can record the page number in their reading book and identify a friend's house from the number. *and then…* I can write the counting sequence in numerals and complete a jigsaw of the 100 square.
	Numerals should be presented according to policy (0 1 2 3 4 5 6 7 8 9). There is a visual/audio resource in school that will show children how to form numerals accompanied by a short melody.		
1.1.b.2 (Representing Numbers) Read and write numbers from 1 to 20 in words (^)		I can match the numeral 5 to the word 'five' and fill in the missing word or numeral for numbers to 10.	I can match the numeral 13 to the word 'thirteen' and fill in the missing word or numeral for numbers to 20. *and then…* I can arrange the words for the numbers to 20 in alphabetical order and then replace them with their numerals.
1.1.b.3 (Representing Numbers) Identify and represent numbers using objects and pictorial representations including the number line (^)	I can make numbers below ten using manipulatives.	I can place numbers on an empty number line.	I can represent and recognise numbers from a wide variety of representations.
1.2.e.1 (Using Written Calculations) Read, write and interpret mathematical statements involving addition (+), subtraction (–) and equals (=) signs		I can use counters to demonstrate 3 + 5 = 8, with prompting. Pupils should use hands to surround counters to show the both groups of counters and then the total number of counters (See calculation policy)	I can use counters to demonstrate 3 + 7 = 10 and write the correct number sentence for five counters, remove two counters to leave three counters. *and then…* I can match a set of number sentences involving addition and subtraction to ten with their representations using counters.
1.2.d.1 (Recall) Begin to memorise number bonds to 10 and 20, including noticing the effect of adding or subtracting zero (+)		I can recall number bonds to 10 with prompting. *and then…* I can recall number bonds to 10 and 20 and reason with them.	I can recall number bonds to 10 and 20 and reason with them (Consolidation). *and then…* I can recall number bonds to 10 and 20 in both additive and subtractive forms.

Geometry			
Objective	**Beginning**	**Developing**	**Secure**
1.2.1 (Classifying Shapes) Recognise common 2-D shapes in different orientations and sizes **i.e. including rectangles (including squares), circles and triangles**	I can identify rectangles, triangles and circles around the classroom and in the outdoor area, when prompted. *and then…* I can independently and spontaneously identify rectangles, triangles and circles around the classroom and in the outdoor area.	I can explain what is the same and what is different about the shapes.	
1.2.2 (Classifying Shapes) Name common 2-D shapes in different orientations and sizes **i.e. including rectangles (including squares), circles and triangles** (^)	I can name rectangles and circles around the classroom correctly, when prompted. *and then…* I can name rectangles, triangles and circles around the classroom correctly.	I can name rectangles, triangles and circles correctly and use related mathematical language to describe them (*sides, corners, angles, long, wide, 2D*)	
1.2.3 (Classifying Shapes) Recognise and name common 3-D shapes in different orientations and sizes **i.e. including cuboids (including cubes), pyramids and spheres** (^)		I can select a pyramid from a set of 3-D shapes, with support. *and then…* I can select a pyramid from a set of 3-D shapes.	I can sort a collection of 3-D shapes while naming them correctly. Children can sort by colour, size or the number of sides. With support the terms 'edges' and 'vertices' could be used as a sorting criteria also, but this is beyond expectation.
1.4.1 (Describing Position) Describe position using everyday language e.g. top, middle, bottom, in front of, between, near, inside (+)		I can arrange four objects in a 2 by 2 array and describe the position of one of them by referring to another object in the array, with support. *and then…* I can independently do the above using 9 objects to create a 3 by 3 array. *and then…* I can arrange nine objects in a 3 by 3 array and describe the position of one of them by referring to another object or the array, and do so in a variety of ways.	
1.4.2 (Describing Position) Recognise and create simple repeating patterns with objects and shapes (+)			I can identify a sequence such as RBGRBGRBG and continue it, with support (R=red, B=blue, G=green). *and then…* I can do the above independently. *and then…* I can make up sequence and extend them, describing the rule I am following.
1.5.1 (Describing Movement) Describe movement in straight lines using everyday language and describe turns, including half, quarter and three-quarter turns in both directions and connect turning clockwise with movement on a clock face (+)			I can follow instructions to walk to a particular place including the turns either left or right, with prompts. I can follow instructions to walk around a shape including the quarter turns either clockwise or anti-clockwise, referring to a clock face to establish the direction, with prompts. *and then…* I can give instructions to another pupil to walk to a particular place or around a shape. *and then…* I can write the instructions for another pupil to walk to a particular place. I can give instructions to a Beebot to travel around a shape.

Measures			
Objective	**Beginning**	**Developing**	**Secure**
The objectives within the measures strand of the curriculum lend themselves particularly well to play and every effort should be made to incorporate play based activities into the allocated maths lesson and maths into PSHE Play activities.			
1.1.4 (Understanding Units of Measure) Use non-standard units to measure length, mass and capacity (+)	I can pace out the length of a path to measure its length. *and then…* I can measure weight by balancing an object with a number of plastic cubes, for example. *and then…* I can measure length, weight and capacity using non-standard units and describe some of the disadvantages of them.		
1.3.3 (Solve Measurement Problems) Compare, describe and solve practical problems for lengths and heights, mass or weight and capacity/volume (^)	I can solve problems such as 'Using a balance, compare two boxes to find out which is heavier'. *and then…* I can do the above for more than two objects to find out which is heavier.		

	and then… Is can compare more than two objects them and sort them into ascending weight order.		
1.3.1 (Solve Measurement Problems) Compare, describe and solve practical problems for time (^)	I can describe lunchtime as being later in the day than morning break. *and then…* I can pour water from one container to another and describe the water as pouring more quickly or more slowly than on a previous occasion. *and then…* I can combine two ideas of time, such as 'I walked to school more quickly today so I arrived earlier.'		
1.1.1 (Understanding Units of Measure) Sequence events in chronological order using language	I can describe everyday events using the appropriate sequencing language such as 'I put on my socks before I put on my shoes', 'I walked to school after I had eaten my breakfast'.	I can describe events in chronological order such as 'Monday comes before Tuesday', 'Yesterday evening I did my homework, then I went to bed' and 'Tomorrow afternoon I have to visit the dentist'. *and then…* I can describe a sequence of three everyday events in several different ways such as 'I ate my lunch after I had my drink and before going out to play', 'I went out to play after I had finished my lunch. I had finished my drink during morning break' and 'I had my drink first, then ate my lunch. Finally I went out to play'.	
1.1.2 (Understand Units of Measure) Recognise and use language relating to dates, including days of the week, weeks, months and years Cross-curricular links to literacy: Stage 1 - Read and write the days of the week (Using Capital letter)		I can chant the days of the week and the months of the year in order and, with support, identify today's date.	I can say the date 'Tuesday the 2nd of June' and describe future events as 'in two weeks' time' and 'In three years I shall be in Year 4'. *and then…* I can interpret a calendar for the year, labelling significant dates and making statements such as 'Christmas Day is on the fourth Wednesday in December' or 'My birthday is three weeks before Easter'.
1.2.1 (Make Measurements) Tell the time to the hour and half past the hour and draw the hands on a clock face to show these times		I can tell when it is 12 o'clock and, with support, identify half past two. and then… I can tell when it is 12 o'clock and half past two and draw a clock face with hands to show these times.	I can tell which of the o'clock and half past times is the next to occur and draw a clock face with hands to show these times.
1.2.2 (Make Measurements) Measure and begin to record time (hours, minutes, seconds) (^)		I can draw hands on a clock face and respond orally to simple questions about time.	I can draw hands on a clock face and identify the correct answer from a number of possibilities to questions about time. *and then…* I can both draw hands on a clock face and write down the time in words.
1.1.3 (Understand Units of Measure) Recognise and know the value of different denominations of coins and notes		I can identify coins and order them according to their value. Check resources match the current coinage and bank notes used in the England.	I can role play buying an item in a shop. I can select the correct coins to pay for an item costing 23p and know that, if I hand over a £5 note, I should get some change. *and then…* I can assemble the appropriate coins and notes to pay for any item up to £10, explaining why I have chosen them.
1.3.2 (Solve Measurement Problems) Begin to handle coins and become familiar with coins up to 20 pence (+)		I can identify the 1p, 2p and 5p coins.	I can sort a collection of coins up to 20p and form equivalences such as two 1p coins are worth the same as one 2p coin, up to four 5p coins are worth the same as one 20p coin. *and then…* I can solve some problems such as 'How many different ways can you make 25p? How do you know you have them all?'

Arithmetic 2			
Objective	**Beginning**	**Developing**	**Secure**
1.3.a.1 (Fractions, Decimals & Percentages) Recognise, find and name a half as one of two equal parts of an object, shape or quantity	I can identify that ten counters can be grouped into two sets in several ways and, with prompting, conclude that only the five and five partition represents a half.	I can identify when a shape, such as a rectangle is divided into two equal pieces and so each is a half, and when the two pieces are unequal and so each is not a half. *and then…* I can explain why the term 'bigger half' does not make sense.	
	Make explicit that a single object or a group of objects can both be split into two equal parts called halves.		

1.3.a.2 (Fractions, Decimals & Percentages) Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity	I can group 12 counters into four equal groups of three each and choose one of them as a quarter, with supporting prompts.	I can identify four equal parts of a rectangle and choose one of them as a quarter. *and then…* I can sort a number of situations consisting of four parts to select those which are one of four equal parts and those which are one of four unequal parts.	
	Make explicit that a single object or a group of objects can both be split into four equal parts called quarters.		
1.2.b.2 (Calculate Mentally) Mentally double numbers up to 10 (+)	I can add another three counters to a set of three counters to double it.	I can answer six when asked to double three. Must be mental recall. *and then…* I can answer 16 when asked to double eight. Must be mental recall.	
1.1.a.3 (Count) Count in multiples of twos, fives and tens (^)	I can count beads in twos.	I can count beads in groups of two, five and ten.	I can count beads in groups of two, five and ten (Consolidating). *and then…* I can predict whether a given number will be in the sequence when I count in twos, fives and tens.
1.2.a.2 (Understand Calculation) Begin to understand multiplication, division and doubling through grouping and sharing small quantities (+)		I can select three more counters in order to double the set of three counters I already have. and then… I can arrange a set of 12 counters into two groups of six each.	I can predict the number of counters in a set when an equal number of counters is added to it for small numbers.
1.2.e.2 (Use Written Calculation) Use arrays to represent multiplication and record grouping when doing division (+) For previously taught multiplications 2s, 5s & 10s.		I can draw two lines of five dots to represent repeated addition, with prompting. *and then…* I can do the above independently.	I can draw an array to represent multiplication.

Reasoning			
Objective	**Beginning**	**Developing**	**Secure**
1.1.c.1 (Order and Compare) Use the language of: equal to, more than, less than (fewer), most, least (^)	I can identify the largest or smallest of a set of numbers below ten and compare two of them, saying which is smaller. I use the language of 'first' and 'second'. *and then…* I can compare three numbers using sets of counters, making statements such as 12 is more than 5; 27 is the number with the most counters; 5 is fewer counters than 12. I use the language of 'first', 'second' and 'third'.	I can sort sets of objects (or pictures of them on cards) using a Venn diagram labelled 'smaller than or equal to 12' and 'greater than or equal to 12', correctly identifying the cards which belong to both sets. I use the language of ordinal numbers up to ninth and tenth.	
1.1.d.1 (Solve Number Problems) Solve number problems with number and place value from the Year 1 curriculum (+)	I can solve problems such as 'There are three people on the bus. One more gets on, how many are on the bus now?', with supporting equipment. *and then…* I can solve problems such as 'There are five birds in a nest. One flies off, how many are left?'	I can solve problems such as 'I am thinking of a number. It is greater than seven and smaller than ten. I don't say it when I count in multiples of two. What is my number?'	
1.2.b.1 (Calculate Mentally) Mentally add and subtract one- and two-digit numbers to 20, including zero		I can calculate the sum and difference of numbers up to ten	I can find pairs of numbers below 20 with a difference of four or a sum of 18. *and then…* I can solve problems such as 'Two numbers have a sum of 19 and a difference of five. What are they?'
1.2.c.1 (Solve Calculation Problems) Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = □ – 9	I can use counters to work out simple number problems such as 2 + 3 = ?.	I can use counters to work out the missing number in 8 + ? = 14. *and then…* I can solve missing number problems such as 28 – ? = 11. Introduce the language of 'difference' and 'how many more are needed?'	
1.2.a.1 (Understand Calculation) Represent and use number bonds and related subtraction facts within 20		I can use objects to find pairs of numbers that add to totals less than 20	I can deduce from 3 + 12 = 15, that 15 – 12 = 3 or 4 + 12 = 16 or 3 + 13 = 16. *and then…* I can solve problems such as 'Use the numbers 1, 3, 6, 11 adding and subtracting them in pairs to make as many different numbers as possible.'
1.2.c.2 (Solve Calculation Problems) Solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial			I can work out how many pieces of paper are needed on a table with four children if each child has two pieces each. *and then…* I can work out how many grapes each child gets if 12 are shared between four children

representations and arrays with the support of the teacher			using counters to represent the grapes. *and then…* I can work out how many pencils each child gets when 20 pencils are shared equally between five children, by imagining the pencils.