

Maak 1

Number (Number and place value)

#### Emerald Class Mathematics Curriculum overview 2018-2019



#### Autumn Term 1

This overview is used as a guide. It indicates the area of mathematics that teachers should focus on and outlines possible objectives from the National Curriculum which will be covered within each week. These are the main objectives but other areas of mathematics and objectives will be taught and developed alongside these. A pre learning task will be carried out for each area before teaching each concept to enable children to learn from individual starting points.

VVeek 1	Number (Number and place value)		
<u>&amp;</u> Week 2	Y1: Count to 20 forwards and backwards, beginning with 0 or 1, from any given number Count, read and write words to 20 and in numerals (to 100) Identify and represent numbers using objects and pictorial representations, including a number line.		
	Y2: Read and write numbers to at least 100 in numerals and words Recognise the place value of each digit in a two-digit number (tens and ones) Identify, represent and estimate numbers using different representations, including a number line.		
Week 3		Number (Addition and subtraction)	
<u>&amp;</u>	Counting		
Week 4	forward and	Y1: Represent and use number bonds to 20 and related subtraction facts	
	backwards to	Add and subtract one and 2 digit numbers to 20, including zero.	
	and across 100.		
	Begin with 0 or	Y2: Recall and use addition and subtraction facts to 20 fluently and derive and use related facts up to 100	
	1 and from any	Add and subtract numbers using concrete objects, pictorial representations and mentally, including:	
	given number.	A 2 digit and ones	
	Read and write	A 2-digit number and tens Two 2 digit numbers	
	numbers.	Adding 3 one digit numbers	
	numbers.	Adding 3 one digit fidinibers	
Week 5	Practise the	Measurement	
<u>&amp;</u>	place value of		
Week 6	given numbers.	Y1: Recognise and know the different dominations of coins and notes.	
		Y2: Recognise and use symbols for pounds and pence. Combine amounts to make a value of money.	
		Find different combinations of coins that equal the same amounts of money.	
		Solve simple problems in a practical context involving addition and subtraction, including giving change.	

Week 7	Y1: Number Given a number identify one more and one less. Identify and represent numbers using objects and pictorial representations.
	Y2: Statistics Interpret and construct simple pictograms, tally charts, block diagrams and simple tables. Ask and answer questions by counting the number of objects in each category and sorting categories by quantity.

## Autumn Term 2

		Number
Week 1	Number and	
	place value	Y1: Practise counting and ordering numbers, including first, second and third etc. Recognise the place value in numbers
	starters	beyond 20 and reading, writing and comparing numbers up to 100.
	Counting	Y2: Compare and order numbers from 0 up to 100; use < > and =.
	forwards and	Recognise the value of each digit in a two-digit number (tens and ones)
	backwards	
	D :::	Number (Multiplication and division)
1	Reciting	V4 0 1
Week 2	numbers	Y1: Solve one step and 2 step problems involving multiplication by calculating an answer using concrete objects, pictorial
<u>&amp;</u>	Counting in 2s,	representations and arrays with teacher support. Begin to use grouping and sharing of small quantities.
Week 3	5s and 10s.	Y2: recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and
VVOCKO	00 4114 1001	even numbers
	Identify odd and	Calculate mathematical statements for multiplication and division within multiplication tables and write them using the correct
	even numbers.	symbols and signs.
		Show that multiplication of 2 numbers can be done in any order (commutative) and division cannot.
		Use a variety of language to describe multiplication and division.
		Number (Fractions)
Week 3		
<u>&amp;</u>		Y1: Recognise, find and name a half as one of two equal parts and of an object and shape.
Week 4		Recognise, find and name a quarter as one of 4 equal parts and of an object and shape.

	Y2: Recognise, find, name and write fractions and of length, shape, set of objects of quantity. Find simple fractions, for example $\frac{1}{2}$ of 6 = 3. Connect unit fractions to equal sharing and grouping.
Week 5	Geometry (position and direction)
	Y1: Describe the positon, direction and movement, including whole, half, quarter and three quarter turns.
	Y2: Use mathematical vocabulary to describe positon, direction and movement, including movement in a straight line and distinguishing between rotation as a turn and in terms of right angles for a quarter, half and three quarter turns (clockwise and anti-clockwise). Use turns in practical contexts (maps, routes etc.)
Week 6	Geometry (properties of shape)
<u>&amp;</u> <u>Week 7</u>	Y1: Recognise and name common 2D shapes related to everyday objects.
	Y2: Identify and describe the properties of 2D shapes, including the number of sides and lines of symmetry in a vertical line. Use vocabulary such as sides, lines, quadrilaterals and polygons. Read, write and spell the names of shapes.

## Spring Term 1

		Measurement
Week 1		
	Place value and	Introduce the weather station in the outdoor area. What would we measure these with? What equipment do we need?
	number	Set up a recording station, including measuring the following; day, month, year, rainfall, temperature, time.
	(developing	
	reasoning	Y1: Recognise and use language relating to dates; including days of the week, months and years.
	starters)	
	,	Y2: Read, spell and know the months of the year, days of the week (recap Y1)
		Know the number of minutes in an hour and the number of hours in a day.
	Place numbers	Know the language of o'clock, half, past, to the hour.
	on a number	

	line. Find a	Measurement
	missing number	medodi ement
Week 2	on a number	Y1: Tell the time to the hour and half past the hour and draw the hands on the clock to show these times. Measure and
	line.	begin to record time (hours, minutes, seconds)
		Sequence events in chronological order using language such as; before, after, today, tomorrow, yesterday, morning,
	Complete	afternoon, eventing.
	repeated patterns with	
	objects and	Y2: Tell and write the time to five minutes, including quarter past/ to the hour and draw the hands on a clock face to show
	shapes.	these times. Compare and sequence intervals of time.
	•	
		Y2: Choose and use appropriate standard units of measure using cm, mm, m, ml, I using rulers, scales, thermometers and
		measuring vessels. Read scales accurately.
		Y1: Number
Week 3		
<u>&amp;</u>		Identify and represent numbers using language of equal to, less than and more than. Sort shapes according to these. Sort
Week 4		numbers and shapes into 2 criteria.
		Y2: Statistics
		12. Otalistics
		Ask and answer questions about totalling and comparing categorical data.
		Record, interpret, collate, organise and compare information using correspondence in pictograms with simple ratios 2, 5 and
		10.
Week 5		Number (Addition and subtraction)
<u> </u>		
		Y1: Read, write, interpret and solve mathematical statements using + - and =.
		Memorise and reason with number bonds, finding missing numbers. Recognise the effect of adding zero.
		V2: Pocall and use addition and subtraction facts to 20 fluently and derive and use related facts up to 100. Pocagnics and
		Y2: Recall and use addition and subtraction facts to 20 fluently and derive and use related facts up to 100. Recognise and use the inverse relationship between addition and subtraction and use this to find missing number problems.
		Show that addition can be done in any order (commutative) but subtraction cannot.
		Extend language use to sum and difference.
Week 6		Number (addition and subtraction)
		Y1: Represent and use number bonds to 20 and related subtraction facts, including solving one step problems.
		Add and subtract one and 2 digit numbers to 20, including zero. Adding and subtracting mass/ weight (grams/ kg) etc.
		Y2: Add and subtract numbers using concrete objects, pictorial representations and mentally, including:

A 2 digit and ones A 2-digit number and tens Two 2 digit numbers Adding 3 one digit numbers
Begin to record addition and subtraction in columns, supporting place value.

# Spring Term 2

Week 1	Measurement starters: visit the weather station.	Y1: Count, read and write words to 20 and in numerals (to 100) Identify and represent numbers using objects and pictorial representations, including a number line and measures.
	Read the time.	Y2: Recognise the place value of numbers and digits, partition numbers in different ways (e.g.: 23 = 20+3 or 23 = 13 + 10 etc.).  Order and compare numbers, quantities and include measures such as length, mass, temperature.  Solve problems using place value.
	Count up in fractions	Geometry (properties of shape)
Week 2	starting from any number	Y1: Recognise and name 3D shapes and know that a cub is different to a square etc. Using cuboids, cubes, pyramids etc.
	(Y2)	Y2: Identify and describe properties of 3D shapes, including the number of edges, faces and vertices. Compare and sort shapes with everyday objects. Identify 2D shapes on the surfaces of the 3D shapes.
	Count in 5s using length,	Be able to spell and read the shape names.
	time etc.	Draw and measure different lines and shapes.
Week 3	Count in 2s and 10 using	Number (Multiplication and division)
<u>&amp;</u> Week 4	other contexts.	Y1: Solve one step and 2 step problems involving multiplication by calculating an answer using concrete objects, pictorial representations and arrays with teacher support. Begin to use grouping and sharing of small quantities.
		Double numbers and quantities, find half of simple numbers and quantities.

	Y2: Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods and multiplication and division facts, including problems in contexts such as money.
Week 5	Number (Fractions)
<u>&amp;</u> Week 6	Y1: Recognise, find and name a half as one of two equal parts and of an object and shape. Recognise, find and name a quarter as one of 4 equal parts and of an object and shape. Find half and quarters of length, money etc.
	Y2: Recognise, find, name and write fractions and of length, shape, set of objects of quantity, money and other measures. Find simple fractions, for example $\frac{1}{2}$ of 6 = 3. Connect unit fractions to equal sharing and grouping. Place fractions on a number line.

### Summer Term 1

Week 1		Number (Addition and subtraction)	
	Place value and number (developing	Y1: Develop and refine mental methods for addition and subtraction, using resources to support. Develop reasoning and problem solving skills. Begin to use ideas such as square + square = circle. (what could these be?)	
	reasoning) Starters	Y2: Become increasingly fluent with addition and subtraction number facts and derive further facts such as; 3+7 = 10, 30+70 = 100 etc. Problem solve and use a range of contexts, including measures.	
	linked to	100 dia. 1 rasiam dana daa di ranga di damaka, madadii gimadadii da.	

	money –	Number (Addition and subtraction)		
Week 2	finding change, how many coins.	Y1: Solve one step problems that involve addition and subtraction, including missing number problems. Use a range of contexts, including measures. Use problems and vocabulary such as add, total, take away, distance between, difference between, more than and less than.		
	Missing number problems.	Add and subtract and compare length, heights. (longer, shorter, tall Y2:	, short, double/ half)	
	Daily problems.	Recognise and use the inverse relationship between addition and s Show that addition can be done in any order (commutative) but sub and written methods.		
		Compare and order different lengths, mass, volume and capacity. U	Jsing < > and =.	
Week 3 & Week 4		Geometry (properties of shape)  Y1: Recognise, name and draw 2D shapes.  Sort shapes 2D and 3D shapes using basic properties.	Year 2: Revision of skills/ plug gaps / SATS	
Week 5		Y1: Number  Recognise repeating patterns with objects and shapes. Create and complete patterns.	SATS week Statistics project: Collect and present data, following your own question.	

### Summer Term 2

Week 1 and	Place value	Number (Multiplication and division)
Week 2	and number (developing reasoning)	Y1: Solve one step and 2 step problems involving multiplication by calculating an answer using concrete objects, pictorial representations and arrays with teacher support. Use grouping and sharing of small quantities and measures (money, length, weight)
	Starters linked to GAPS in	Y1: Make connections between arrays, number patterns and counting in twos, fives and tens.
	learning.	Y2: Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods and multiplication and division facts, including problems in contexts.
	Time starters.	Begin to relate multiplication and division facts to fractions and measures, use commutativity and inverse relations to develop multiplicative reasoning.
		Number (fractions)
Week 3 <u>&amp;</u> Week 4		Y1: Refine and recognise, find and name a half as one of two equal parts and of an object and shape. Recognise, find and name a quarter as one of 4 equal parts and of an object and shape and measures. Find half and quarters of length, money, mass etc.
		Y2: Refine and recognise, find, name and write fractions and of length, shape, set of objects of quantity, money and other measures.  Find simple fractions, for example ½ of 6 = 3.
		Connect unit fractions to equal sharing and grouping. Place fractions on a number line.
Week 5		Measurement
<u>&amp;</u> Week 6		Y1: Compare, solve and describe problems for mass/ weight and volume using heavier, lighter, lighter than, more, less, full, empty, half full, quicker, slower, earlier, later.
		Measure and begin to record lengths, heights, mass, weight, capacity and volume.
		Y2: Compare (half as high, twice as heavy) and problem solve using a variety of measures.  Become fluent in recognising coins, telling the time and using standard units of measures.

Week 7	Geometry (positon and direction)
	Y1: Describe positon, direction and movement, including whole, half and quarter turns. Relate to clock faces and times. Use positional language such as: left, right, middle, top, bottom, between, around, near, close, far, backwards, forwards etc.
	Y2: Order and arrange combinations of shapes, objects in patterns and sequences. Work with different shapes of different orientations.

Please also refer to the non-statutory guidance in the National Curriculum 2014.