

John Emmerson Batty Primary School Mathematics Curriculum – Year 2

Year 2	KEY VOCABULARY						
Number System	Number - Addition and Subtraction	Number - Multiplication and Division	Number - Fractions/Decimals/Percentages and Ratio	Algebra	Measurement	Statistics	Geometry
<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward 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. 	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> solve problems with addition and subtraction: <ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> 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. 	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> 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 (\times), division (\div) 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. 	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> 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 $\frac{1}{2}$. 	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> recognise and use the inverse relationship between addition and subtraction to solve missing number problems. 	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature ($^{\circ}\text{C}$ - Science links); 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. 	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> 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. <p>(Links with Science/Topic where appropriate)</p>	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> 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).
KEY VOCABULARY							
<p>Place value Tens Ones Estimate Numerals Addition Subtraction Method Inverse Division Multiplication Tables Equals Arrays Fractions Equivalent 2D shape 3D shape Dimensional</p>				<p>Centimetres/metres Grams/kilograms Degrees Celsius $^{\circ}\text{C}$ Millilitres/litres Pounds/pence Euros Change Analogue/digital O'clock Half past Quarter past Quarter to Hour Minute Second Week Month Year Pictogram Tally Bar chart</p>			

Termly / Weekly Focus (Guide for the Class Teacher) – Year 2

Wk	Term 1a	Wk	Term 1b
1	Number and Place Value - tens and ones	1	Statistics - tally charts, block graphs, pictograms and simple tables
2		2	Measurement - money (£ and p) and time (quarter hours)
3	Addition and Subtraction - two-digit and one-digit numbers, counting on & counting back	3	
4	Properties of Shapes - 2D and 3D	4	Multiplication and Division - introducing arrays/repeated addition
5	Multiplication - counting in 2s, 5s and 10s	5	Number - number bonds and problems
6	Fractions - of shapes	6	Measurement - length (m/cm)
7	Assessments	7	Assessments

Wk	Term 2a	Wk	Term 2b
1	Number and Place Value - tens and ones, estimating numbers on a number line	1	Addition - written methods including pictorial and number line
2	Addition and Subtraction - two two-digit numbers	2	Subtraction - written methods including pictorial and number line
3	Multiplication - 2, 5- and 10-times tables	3	Measurement - money (finding different ways to make same amount and giving change)
4	Fractions - of sets of objects and quantities	4	Statistics - tally charts, Venn & Carroll diagrams
5	Properties of Shapes - sorting and comparing	5	Multiplication and Division - multiplication and division facts for 2, 5- and 10-times tables
6	Measurement - mass (kg/g) Assessments	6	Measurement - time to five minutes Assessments

Wk	Term 3a	Wk	Term 3b
1	Number and Place Value - hundreds, tens and ones / estimating / problems	1	Number - bonds to 10, 20 and 100
2	Addition and Subtraction - inverse / missing number problems	2	Number - halving and doubling
3	Multiplication and Division - odd and even	3	Multiplication and Division - 2, 3, 5- and 10-times tables facts, arrays, problems in context
4	Position, Direction and Movement - quarter, half and three-quarter turns	4	Properties of Shapes - 2D and 3D reasoning
5	Properties of Shapes - 2D and 3D revision	5	Measure - compare and sequence intervals of time, time to 5 minutes, drawing hands on a clock
6	Measurement - capacity (litres/ml) and temperature (°C)	6	Assessments
7	Assessments (Year 2 SATs tests to be completed during month of May)	7	Transition

Place Value	1. Count in steps of 2, 3, and 5 from 0, and in tens from any number, forward or 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, inc. the number line.
	4. Compare and order numbers from 0 up to 100; use <, > and = signs.
	5. Read and write numbers to at least 100 in numerals and in words.
Add and Sub	6. Solve problems with addition and subtraction: using concrete objects and pictorial representations; applying their increasing knowledge of mental and written methods.
	7. Recall and use add and subtract facts to 20 fluently, and derive and use related facts up to 100.
	8. Add and sub nos using concrete objects, pictorial representations, and mentally, including: a 2-digit no and 1s or 10s; two 2-digit numbers; adding three 1-digit numbers.
	9. Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot.
	10. Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and missing number problems.
Mult and Div	11. Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers.
	12. Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs.
	13. Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot.
	14. Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts.
Fraction	15. Recognise/find/name/write fractions $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{4}$, $\frac{3}{4}$ of a length, shape, set of objects or quantity.
	16. Write simple fractions e.g. $\frac{1}{2}$ of 6 = 3 and recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$.
MEASURE	17. Choose/use appropriate stand units to estimate/measure length/height (m/cm); mass (kg/g); temp (°C); cap (litres/ml) to nearest unit, using rulers, scales, thermometers and measuring vessels.
	18. Compare and order lengths, mass, volume/capacity and record the results using >, < and = .
	19. 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.
	20. Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change.
	21. Compare and sequence intervals of time. Know the number of minutes in an hour and the number of hours in a day.
	22. 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.
GEOMETRY	23. Identify and describe the properties of 2D shapes, including the number of sides and symmetry in a vertical line.
	24. Identify and describe the properties of 3D shapes, inc the no. of edges, vertices and faces.
	25. Identify 2D shapes on the surface of 3D shapes, e.g. circle on a cylinder; a triangle on a pyramid.
	26. Compare and sort common 2D and 3D shapes and everyday objects.
	27. Order and arrange combinations of mathematical objects in patterns and sequences.
	28. Use math vocab to describe position, direction & movement inc movement in a straight line and distinguishing rotation as a turn & in terms of right angles for $\frac{1}{4}$, $\frac{1}{2}$, & $\frac{3}{4}$ turns (clock/anti-clockwise).
STATS	29. Interpret and construct simple pictograms, tally charts, block diagrams and simple tables.
	30. 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.