Key Performance Indicators for Maths

Elmgrove Primary School and Nursery Moderation: Maths

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Number	**Number**	**Number**	**Number**	**Number**	**Number**
Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number. **(Number and Place Value)**	Count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward. **(Number and Place Value)**	Count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number. **(Number and Place Value)**	Count in multiples of 6, 7, 9, 25 and 1000. **(Number and Place Value)**	Read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit e.g. what is the value of the '7' in 276,541? Find the difference between the largest and smallest whole numbers that can be made from using three digits. **(Number and Place Value)**	Round any whole number to a required degree of accuracy. **(Number and Place Value)**
Count and read numbers to 100 in numerals. **(Number and Place Value)**	Compare and order numbers from 0 up to 100; use <, > and = signs. **(Number and Place Value)**	Recognise the place value of each digit in a three-digit number (hundreds, tens, ones). **(Number and Place Value)**	Count backwards through zero to include negative numbers. **(Number and Place Value)**		Use negative numbers in context, and calculate intervals across zero. **(Number and Place Value)**
Count and write numbers to 100 in numerals. **(Number and Place Value)**	Use place value and number facts to solve problems. **(Number and Place Value)**	Solve number problems and practical problems involving these ideas. **(Number and Place Value)**	Order and compare numbers beyond 1000. **(Number and Place Value)**	Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero. **(Number and Place Value)**	Solve multi-step problems in contexts, deciding which operations and methods to use and why e.g. find the change from £20 for three items that cost £1.24, £7.92 and £2.55; a roll of material is 6m long: how much is left when 5 pieces of 1.15m are cut from the roll?; a bottle of drink is 1.5 litres, how many cups of 175ml can be filled from the bottle, and how much drink is left?. **(Addition and Subtraction)**
Count in multiples of twos, fives and tens from 0. **(Number and Place Value)**	Solve problems with addition and subtraction using concrete objects and pictorial representations, including those involving numbers, quantities and measures. **(Addition and Subtraction)**	Add and subtract numbers mentally, including a three-digit number and ones. **(Addition and Subtraction)**	Round any number to the nearest 10, 100 or 1000. **(Number and Place Value)**		
Identify one more and one less of a given number. **(Number and Place Value)**		Add and subtract numbers mentally, including a three-digit number and tens. **(Addition and Subtraction)**	Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why. **(Addition and Subtraction)**	Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction). **(Addition and Subtraction)**	
Represent and use number bonds within 20. **(Addition and Subtraction)**	Solve problems with addition and subtraction applying his/her increasing knowledge of written methods and mental methods where regrouping may be required. **(Addition and Subtraction)**	Add and subtract numbers mentally, including a three-digit number and hundreds. **(Addition and Subtraction)**	Recall multiplication and division facts for multiplication tables up to 12 × 12. **(Multiplication and Division)**		Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy. **(Addition and Subtraction)**
Represent and use subtraction facts within 20. **(Addition and Subtraction)**	Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100. **(Addition and Subtraction)**	Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables. **(Multiplication and Division)**	Recognise and show, using diagrams, families of common equivalent fractions. **(Fractions)**	Add and subtract numbers mentally with increasingly large numbers. **(Addition and Subtraction)**	
<mark>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 **(Multiplication and Division)**</mark>	Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers. **(Multiplication and Division)**	Write and calculate mathematical statements for multiplication and division using the multiplication tables that he/she knows, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods. **(Multiplication and Division)**	Count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten. **(Fractions)**	Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why. **(Addition and Subtraction)**	Multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication. **(Multiplication and Division)**
Recognise, find and name a half as one of two equal parts of an object, shape or quantity. **(Fractions)**	Solve problems involving multiplication and division, using concrete materials and mental methods. **(Multiplication and Division)**		Round decimals with one decimal place to the nearest whole number. **(Fractions)**	Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers. **(Multiplication and Division)**	Divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context. **(Multiplication and Division)**
Measurement	Solve problems involving multiplication and division, using arrays, repeated addition and multiplication and division facts, including problems in contexts e.g. knowing that 2 × 7 = 14 and 2 × 8 = 16, explains that making pairs of socks from 15 identical socks will give 7 pairs and one sock will be left. **(Multiplication and Division)**	Count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10. **(Fractions)**	Solve simple measure and money problems involving fractions and decimals to two decimal places. **(Fractions)**	Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes. **(Multiplication and Division)**	Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy. **(Multiplication and Division)**
Compare, describe and solve practical problems for capacity and volume e.g. full/empty, more than, less than, half, half full, quarter. (Measurement)			**Measurement**		
Compare, describe and solve practical problems for lengths and heights e.g. long/short, longer/shorter, tall/short, double/half. (Measurement)	Recognise, find, name and write fractions 1/3, 1/4, 2/4 and 3/4 of a length, shape, set of objects or quantity and demonstrate understanding that all parts must be equal parts of the whole. **(Fractions)**	Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators. **(Fractions)**	Convert between different units of measure e.g. kilometre to metre; hour to minute. (Measurement)	Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates. **(Multiplication and Division)**	Use written division methods in cases where the answer has up to two decimal places. **(Fractions)**
Compare, describe and solve practical problems for mass/weight e.g. heavy/light, heavier than, lighter than. (Measurement)		Recognise and show, using diagrams, equivalent fractions with small denominators. **(Fractions)**	**Geometry**		Solve problems which require answers to be rounded to specified degrees of accuracy. **(Fractions)**
Compare, describe and solve practical problems for time e.g. quicker, slower, earlier, later. (Measurement)	**Measurement**		Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes. **(Properties of Shape)**	Compare and order fractions whose denominators are all multiples of the same number. **(Fractions)**	
	Tell the time to the hour and half past the hour, quarter past and quarter to and draw the hands on a clock face to show these times. (Measurement)	**Measurement**	Identify lines of symmetry in 2-D shapes presented in different orientations. **(Properties of Shape)**		
Tell the time to the hour and half past the hour and draw the hands on a clock face to show these times. (Measurement)	Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change. (Measurement)	Add and subtract amounts of money to give change, using both £ and p in practical contexts. (Measurement)	Plot specified points and draw sides to complete a given polygon. **(Position and Direction)**		
Geometry	**Geometry**	Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g);	**Statistics**		
Recognise and name common 2-D shapes e.g. rectangles (including squares), circles and triangles. **(Properties of Shape)**	Compare and sort common 2-D and 3-D shapes and everyday objects describing similarities and differences e.g. find 2 different 2-D shapes that only have one line of symmetry; that a cube and a		**Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.** (Statistics)		
Recognise and name common 3-D shapes e.g. cuboids (including cubes), pyramids and spheres. **(Properties of Shape)**					

cuboid have the same number of edges, faces and vertices and describe what is different about them. **(Properties of Shape)**

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). **(Position and Direction)**

Statistics
Ask and answer questions about totalling and comparing categorical data. **(Statistics)**

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volume/capacity (l/ml). (Measurement)

Tell the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks. (Measurement)

Write the time using an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks. (Measurement)

Geometry
Identify right angles and idenitfy whether other angles are greater or less than a right angle. **(Properties of Shape)**
Recognise that two right angles make a half turn, three make three quarters of a turn and four a complete turn. **(Properties of Shape)**

Statistics
Interpret and present data using bar charts, pictograms and tables. **(Statistics)**

Read and write decimal numbers as fractions e.g. 0.71 = 71/100, 8.09 = 8 + 9/?. **(Fractions)**

Read, write, order and compare numbers with up to three decimal places. **(Fractions)**

Solve problems which require knowing percentage and decimal equivalents of 1/2, 1/4, 1/5, 2/5, 4/5 and those fractions with a denominator of a multiple of 10 or 25. **(Fractions)**

Measurement
Calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm^2) and square metres (m^2) and estimate the area of irregular shapes. (Measurement)

Convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre). (Measurement)

Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres. (Measurement)

Geometry
Distinguish between regular and irregular polygons based on reasoning about equal sides and angles. **(Properties of Shape)**

Draw given angles, and measure them in degrees (°). **(Properties of Shape)**

Statistics
Complete, read and interpret information in tables, including timetables. **(Statistics)**

Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts e.g. one piece of cake that has been cut into 5 equal slices can be expressed as 1/5 or 0.2 or 20% of the whole cake. **(Fractions)**

Measurement
Use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to three decimal places. (Measurement)

Geometry
Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons. **(Properties of Shape)**

Draw and translate simple shapes on the coordinate plane, and reflect them in the axis. **(Position and Direction)**

Statistics
Calculate and interpret the mean as an average. **(Statistics)**

Interpret and construct pie charts and line graphs and use these to solve problems. **(Statistics)**

Ratio and Proportion
Solve problems involving the calculation of percentages e.g. of measures, and such as 15% of 360 and the use of percentages for comparison. **(Ratio and Proportion)**

Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples. **(Ratio and Proportion)**

Algebra
Use simple formulae e.g. perimeter of a rectangle or area of a triangle. (Algebra)

Child's name:

Moderated by:

Summer 1 Step pre-moderation: **Summer 1 step post-moderation**   **Targets:**