Cotmanhay Infant and Nursery School KEY SKILLS OVERVIEW – MATHS 2yrs – 7 yrs.

(Using guidelines from National Curriculum 2014, NCETM, Development Matters 2025, EYFS framework 2025, NCETM Mastering Number programme). Revised Jan 2025.

Mathematical aspect	Key areas	Cubs 2/3 yrs	Bears 3/4 yrs	Reception 4/5 yrs	Y1 5/6 yrs	Y2 6/7 yrs
Number: Number and Place value.	**Counting**	• I enjoy taking part in finger rhymes with numbers. • I react to changes of amount in a group of up to three items – if you build a tower with three blocks and take one away, I'll notice. • I am starting to show an interest in counting by making sounds, pointing and saying some numbers in order. • I like to count in everyday routines and play. I sometimes skip numbers – '1-2-3-5. • I can **subitise** 1 and 2 items.	• I can quickly recognise groups of up to 3 objects, without having to count them individually (**'subitising'**). • I can say numbers in order past five. • I can say one number for each item in order: 1,2,3,4,5 (1-1 correspondence). • I know that the last number I reach when counting a small set of objects tells me how many there are in total (this is called the 'cardinal principle').	• I can count objects, actions and sounds. • I can quickly recognise a group of up to five objects without counting. This is called 'subitising'. • I can match the correct numeral (number symbol) to the right amount, e.g. I can play 'snap' where some cards have numerals, and some have dot arrangements. • **I can count beyond ten.**	• I can count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number. • I can count, read and write numbers to 100 in numerals. • I can count in multiples of twos, fives and tens. • Given a number, I can identify one more and one less.	• I can count in steps of 2, 3, and 5 from 0, and in tens from any number, forwards and backwards. • I can say 10 more/less than any number to 100.
	Comparing numbers	• I can compare amounts, saying 'lots', 'more' or 'same'.	• I can use mathematical words to compare amounts 'more than', 'fewer	• I can compare numbers of items.	• I can use the language of: equal to, more than, less than (fewer), most, least.	• I can compare and order numbers from 0 up to 100; use <, > and = signs.

			than' and 'the same as 'different'			
	Identifying, representing and estimating numbers	• I can represent numbers through a range of media.	• I can show 'finger numbers' up to 5. • I can match the correct numeral (number symbol) to the right amount, up to 5, e.g. point to the number 3 when I count 3 snails.	• I understand the 'one more than/one less than' relationship between consecutive numbers.	• I can identify and represent numbers using objects and pictorial representations including the number line.	• I can identify, represent and estimate numbers using different representations, including the number line.
	Reading and writing numbers	• I am beginning to mark make and have an awareness of numbers in the environment.	• I like to experiment with making my own marks and symbols as well as numerals.		• I can read and write numbers from 1 to 20 in numerals and words.	• I can read and write numbers to at least 100 in digits and in words
	Understanding Place value		I can use numbers beyond 10 using Numicon and with adult support.		• I can recognise the place value of each digit in teen numbers.	• I can recognise the place value of each digit in a two-digit number (tens, ones)
	Problem solving	I can solve simple everyday problems with the support of an adult.	I can solve simple everyday problems with the support of an adult.			• I can use place value and number facts to solve problems**.**

Mathematical aspect	Key areas	Cubs 2/3 yrs	Bears 3/4 yrs	Reception 4/5 yrs	Y1 5/6 yrs	Y2 6/7 yrs
Number: Addition and Subtraction	**Number bonds**	I engage in multisensory activities with a focus upon early composition of number.	I can practically join two groups of objects and count how many altogether. I engage in taking away activities ie songs and rhymes, practical.	• I am learning about how numbers are made up of other numbers up to 10, e.g. 3 and 3 makes 6. This is called composition of number. • I know and can say number bonds for 0-5 and some to 10.	• I can represent and use number bonds and related subtraction facts within 20.	• I can recall and use addition and subtraction facts to 20 fluently. • I can derive and use related facts up to 100
	Mental calculation		I can say the next number in a count.		• I can add and subtract one-digit and two-digit numbers to 20, including zero • I can read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs	• I can add and subtract numbers using concrete objects, pictorial representations, and mentally, including: a 2-digit number and 1s a 2-digit number and 10s 2 2-digit numbers adding three one-digit numbers. • I can show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot.
	Written methods	I can make marks, tallies etc with the support of an adult.	I can represent 2 groups by pictures, printing etc and talk		• I can read, write and interpret mathematical statements involving	

			about what I see with an adult.		addition (+), subtraction (-) and equals (=) signs (appears also in Mental Calculation).	
	Inverse operations, estimating and checking answers	I can join in when as adult says, 'let's start again', 'let's check' etc	I know that I can recount to check I have counted accurately.			• I can recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.
	Problem solving	I solve simple mathematical problems with the support of an adult within daily nursery routines.	I solve simple mathematical problems with the support of an adult within daily nursery routines.		• I can 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 solve problems with +/-: using concrete objects and pictorial representations, including those involving numbers, quantities and measures. - I can apply my increasing knowledge of mental and written methods - I can solve simple problems in a practical context involving + and - of money of the same unit, including giving change (copied from Measurement).

Mathematical aspect	Key areas	Cubs 2/3 yrs	Bears 3/4 yrs	Reception 4/5 yrs	Y1 5/6 yrs	Y2 6/7 yrs
Number: Multiplication and Division	**Multiplication and division facts**	I am beginning to share on a 1-1 basis in nursery Ie snack time		I can make groups of 2. I can share into different groups	• I can count in multiples of twos, fives and tens (copied from Number and Place Value)	• I can count in steps of 2, 3, and 5 from 0, and in tens from any number, forwards and backwards (copied from Number and Place Value) • I can recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers
	Mental calculation					• I can show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot.
	Written calculation	I can use mark making to share with the support of an adult.	I can use mark making to share with the support of an adult.			• I can calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication

						(×), division (÷) and equals (=) signs
	Problem solving	I solve simple mathematical problems with the support of an adult within daily routines.	I solve simple mathematical problems with the support of an adult within daily routines.		• I can 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.	• I can solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts**.**

Mathematical aspect	Key areas	Cubs 2/3 yrs	Bears 3/4 yrs	Reception 4/5 yrs	Y1 5/6 yrs	Y2 6/7 yrs
Number: Fractions	**Counting in fractional steps**					• I can count in fractions up to 10, starting from any number and using the 1/2 and 2/4 equivalence on the number line (Non-Statutory Guidance).
	Recognising fractions	I notice adults doing practical halving tasks –ie at the snack table.	I notice halving within general nursery routines. I am beginning to notice things that are not equal.	I can share into two equal groups. I can say whether a group is equal or not equal.	• I can recognise, find and name a half as one of two equal parts of an object, shape or quantity. • I can recognise, find and name a quarter as one of	• I can recognise, find, name and write fractions one third, one quarter, two quarters and three quarters of a length, shape, set of objects or quantity.

					four equal parts of an object, shape or quantity.	
	Equivalence					• I can write simple fractions ie ½ of 6 = 3 and recognise the equivalence of 2/4 and ½.

Mathematical aspect	Key areas	Cubs 2/3 yrs	Bears 3/4 yrs	Reception 4/5 yrs	Y1 5/6 yrs	Y2 6/7 yrs
Measurement	**Comparing and estimating**	• I like to play with stacking blocks and cups. I put objects inside others and take them out again. • I show an interest in words and tasks to compare size and weight, length and capacity. 'bigger/little/smaller', 'high/low', 'tall', 'heavy', long/short, full and empty.	• I can make comparisons between objects relating to size, length, weight and capacity. • I use words and gestures to compare size and weight: 'bigger/little/smaller', 'high/low', 'tall', 'heavy', long, short, 'full and empty. • I am beginning to use some key vocabulary.	• I can compare length, weight and capacity, e.g. "This is heavier than that."	• I can compare, describe and solve practical problems for: **lengths and heights** [e.g. long/short, longer/shorter, tall/short, double/half] **mass/weight** [e.g. heavy/light, heavier than, lighter than] **capacity and volume** [e.g. full/empty, more than, less than, half, half full, quarter] **time** [e.g. quicker, slower, earlier, later] **sequence events in chronological order** using language [e.g. before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening]	• I can compare and order lengths, mass, volume/capacity and record the results using >, < and = • I can compare and sequence intervals of time

	Measuring and calculating		I can order a small number of objects by size and length ie 3		• I can measure and begin to record the following: - lengths and heights - mass/weight - capacity and volume - time (hours, minutes, seconds) • I can recognise and know the value of different denominations of coins and notes	• I can 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 • I can recognise and use symbols for pounds (£) and pence (p); c • I can combine amounts to make a particular value find different combinations of coins that equal the same amounts of money • I can solve simple problems in a practical context involving + and - of money of the same unit, including giving change.
	Telling the time	I am aware of daily routines in Nursery – what is happening	I am beginning to anticipate times of		• I can tell the time to the hour and half past the hour and draw the	• I can tell and write the time to five minutes,

		now, next, at another time. I am beginning g to anticipate some times of the day ie home time.	the day ie home time. I can recall a sequence of events in everyday life and stories. I am learning to use words such as 'first', 'then' 'after' to describe a pattern of events.		hands on a clock face to show these times. • I can recognise and use language relating to dates, including days of the week, weeks, months and years	including quarter past/to the hour and draw the hands on a clock face to show these times. • I know the number of minutes (60) in an hour and the number of hours in a day (24) (converting)

Mathematical aspect	Key areas	Cubs 2/3yrs	Bears 3/4 yrs	Reception 4/5 yrs	Y1 5/6 yrs	Y2 6/7 yrs
Geometry: Properties of shapes	**Identifying shapes and their properties**	• I enjoy building with lots of different resources such as blocks and boxes. I am beginning to create my own structures and arrangements. I am beginning to be aware of shapes in the environment.	• I can choose the right shape when building, e.g. triangular prism for a roof to make structures and arrangements. • I can combine shapes to make new ones - an arch, a bigger triangle etc.	• I can select and rotate shapes, this helps me to learn spatial reasoning skills.	• I can recognise and name common 2-D and 3-D shapes including rectangles (squares), circles and triangles and cuboids (cubes), pyramids and spheres.	• I can identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line • I can identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces. • I can identify 2-D shapes on the surface of 3-D shapes, [for example, a circle on

						a cylinder and a triangle on a pyramid]
	Comparing and classifying	I can match simple objects and shapes.	• I like to explore 2D (flat) and 3D (solid) shapes. I can talk about shapes using everyday words like 'pointy', 'slopey'. I can use mathematical words like: 'sides', 'corners', 'straight', 'flat', 'round'.	• I am learning about how shapes can be combined to make new shapes, e.g. two triangles can be put together to make a square. This helps me to recognise a shape can have other shapes within it, just like numbers can.		• I can compare and sort common 2-D and 3-D shapes and everyday objects.
Geometry: Position and direction	**Position, direction and movement**	• I can do inset puzzles. I like to climb and squeeze myself into different types of spaces.	• I can understand position through words alone, e.g. "The bag is under the table." – with no pointing. • I can describe a familiar route. • I can talk about routes and locations, using words like 'in front of' and 'behind'.		• I can describe position, direction and movement, including half, quarter and three-quarter turns.	• I can 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)
	Pattern	• I notice patterns and arrange things in patterns.	• I can talk about and identify patterns that I see around me, e.g. stripes on clothes, designs on wallpaper. I use everyday language like	• I can continue, copy and create repeating patterns.		• I can order and arrange combinations of mathematical objects in patterns and sequences

			‘pointy’, ‘spotty’, ‘blobs’ etc. • I can make and extend ABAB patterns – stick, leaf, stick, leaf. • I can spot an error in a repeating pattern and correct it.			

Mathematical aspect	Key areas	Y2 end of year expectations
Statistics	**Interpreting, constructing and presenting data.**	• I can interpret and construct simple pictograms, tally charts, block diagrams and simple tables. • I can ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity. • I can ask and answer questions about totalling and comparing categorical data.

Mathematics ELG:

Number

Children at the expected level of development will:

- Have a deep understanding of number to 10, including the composition of each number;

- Subitise (recognise quantities without counting) up to 5; - Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts.

ELG: Numerical Patterns

Children at the expected level of development will:

- Verbally count beyond 20, recognising the pattern of the counting system;

- Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity;

- Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally.

WRE Reception Scheme of learning.

	T1	T2	T3	T4	T5	T6
Y1 WRE SOL	Number: Place Value (within 10). Number: Addition and Subtraction (within 10).	Number: Addition and Subtraction (within 10). Geometry: Shape	Number: Place Value (within 20). Number: Addition and Subtraction (within 20).	Number: Place Value (within 50 including multiples of 2, 5 and 10) Measurement: Length and Height, Weight and Volume.	Number: Multiplication and division (multiples of 2, 5 and 10 included) Number: Fractions	Geometry: position and direction. Number: Place Value (within 100). Measurement: Money and Time.
Y2 WRE SOL	Number: Place Value. Number: addition and Subtraction.	Number: addition and Subtraction. Geometry: Properties of shape.	Measurement: Money Number: Multiplication and Division.	Number: x and ÷. Measurement: Length and height. Mass, Capacity and Temperature.	Number: Fractions. Measurement: Time.	Statistics. Geometry: Position and direction.
The White Rose Education Maths curriculum is a cumulative curriculum. Once a topic is covered it is met many times again in other contexts. We adapt the timings and order of WRE blocks to suit the needs of the pupils and to build in more repetition.						

K Gillott Jan 2026