

YEAR 1 MATHS CURRICULUM

Outlined below is the Year 1 Maths Curriculum which includes details of both the National Curriculum and the KPS Curriculum. The first column indicates what we have to teach with guidance for this given in the second column. The third column enhances the first by outlining our expectations based on our knowledge of the children of KPS and what we want them to learn and our expectations for their achievement and attainment.

	Programmes of Study STATUTORY	Notes and Guidance NON STATUTORY	Kexborough Primary School OUR EXPECTATIONS AND NON NEGOTIABLES
NUMBER – PLACE VALUE	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> ▪ count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number ▪ count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens ▪ given a number, identify one more and one less ▪ identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least ▪ read and write numbers from 1 to 20 in numerals and words. 	<p>Pupils practise counting (1, 2, 3...), ordering (for example, first, second, third...), and to indicate a quantity (for example, 3 apples, 2 centimetres), including solving simple concrete problems, until they are fluent.</p> <p>Pupils begin to recognise place value in numbers beyond 20 by reading, writing, counting and comparing numbers up to 100, supported by objects and pictorial representations.</p> <p>They practise counting as reciting numbers and counting as enumerating objects, and counting in twos, fives and tens from different multiples to develop their recognition of patterns in the number system (for example, odd and even numbers), including varied and frequent practice through increasingly complex questions.</p> <p>They recognise and create repeating patterns with objects and with shapes.</p>	<p><i>This section should form the basis of the first half terms teaching and learning in Year 1 as it clearly builds upon the ELG for number. For any children not achieving the ELG this work will support and reinforce learning to ensure progress.</i></p> <p><i>Number squares should be introduced as early as possible to support one more and one less and the comparison of numbers in order to form a secure foundation for using them to support calculation as the move through Key Stage 1 and possibly into Lower Key Stage 2.</i></p> <p><i>Using arrow cards, children should be taught to partition numbers into tens and units.</i></p> <p><i>See note about Calendar Work.</i></p>

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NUMBER – ADDITION AND SUBTRACTION	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> read, write and interpret mathematical statements involving addition (+), subtraction (–) and equals (=) signs represent and use number bonds and related subtraction facts within 20 add and subtract one-digit and two-digit numbers to 20, including zero solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as $7 = \square - 9$. 	<p>Pupils memorise and reason with number bonds to 10 and 20 in several forms (for example, $9 + 7 = 16$; $16 - 7 = 9$; $7 = 16 - 9$). They should realise the effect of adding or subtracting zero. This establishes addition and subtraction as related operations.</p> <p>Pupils combine and increase numbers, counting forwards and backwards.</p> <p>They discuss and solve problems in familiar practical contexts, including using quantities. Problems should include the terms: put together, add, altogether, total, take away, distance between, difference between, more than and less than, so that pupils develop the concept of addition and subtraction and are enabled to use these operations flexibly.</p>	<p><i>The 'Calculation Policy' is a non negotiable and MUST be followed to ensure consistency of approach and progression throughout school.</i></p> <p><i>Ensuring that Maths is relevant and practical is vital to ensure that children develop a love of and excitement towards Maths as well as knowing why they are doing it. Ensuring a Maths based role play area would allow the children to consistently apply Maths in a real context.</i></p> <p><i>Children should know that addition calculations can be completed either way round but taught to put the largest number first. Subtraction and addition should be clearly linked, even at this very early stage. They should know all number pairs to 20 and the corresponding subtraction fact.</i></p> <p><i>The use of mental strategies to solve simple problems using counting, addition and subtraction, doubling and halving, explaining methods and reasoning orally should remain an emphasis. Children should be able to find totals and change up to 20p.</i></p>
NUMBER – MULT AND DIV	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> 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. 	<p>Through grouping and sharing small quantities, pupils begin to understand: multiplication and division; doubling numbers and quantities; and finding simple fractions of objects, numbers and quantities.</p> <p>They make connections between arrays (be aware that arrays need to be set out following the Singapore bar method in blocks with lots of within it), number patterns, and counting in twos, fives and tens.</p>	<p><i>Calculation Policy MUST be followed</i></p> <p><i>See Singapore Bar Method for teaching arrays. MUST NOT be set out $4 \times 5 = 20$ with four rows of 5 for example.</i></p>
NUMBER - FRACTIONS	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> recognise, find and name a half as one of two equal parts of an object, shape or quantity recognise, find and name a quarter as one of four equal parts of an object, shape or quantity. 	<p>Pupils are taught half and quarter as 'fractions of' discrete and continuous quantities by solving problems using shapes, objects and quantities. For example, they could recognise and find half a length, quantity, set of objects or shape. Pupils connect halves and quarters to the equal sharing and grouping of sets of objects and to measures, as well as recognising and combining halves and quarters as parts of a whole.</p>	<p><i>Object, shape and quantity is key and teaching in this area should not be limited to the first two.</i></p> <p><i>Children should be encouraged to talk about half being splitting / sharing equally into two and a quarter being four.</i></p>

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MEASUREMENT	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> ▪ compare, describe and solve practical problems for: ▪ lengths and heights [for example, long/short, longer/shorter, tall/short, double/half] ▪ mass/weight [for example, heavy/light, heavier than, lighter than] ▪ capacity and volume [for example, full/empty, more than, less than, half, half full, quarter] ▪ time [for example, quicker, slower, earlier, later] ▪ measure and begin to record the following: ▪ lengths and heights ▪ mass/weight ▪ capacity and volume ▪ time (hours, minutes, seconds) ▪ recognise and know the value of different denominations of coins and notes ▪ sequence events in chronological order using language [for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening] ▪ recognise and use language relating to dates, including days of the week, weeks, months and years ▪ tell the time to the hour and half past the hour and draw the hands on a clock face to show these times 	<p>The pairs of terms: mass and weight, volume and capacity, are used interchangeably at this stage. Pupils move from using and comparing different types of quantities and measures using non-standard units, including discrete (for example, counting) and continuous (for example, liquid) measurement, to using manageable common standard units.</p> <p>In order to become familiar with standard measures, pupils begin to use measuring tools such as a ruler, weighing scales and containers.</p> <p>Pupils use the language of time, including telling the time throughout the day, first using o'clock and then half past</p>	<p><i>Children should be able to talk about why we have and use standard measures. This should be as a result of practical investigation. They should compare two lengths, masses or capacities by direct comparison. In oral sessions, children should begin to suggest suitable standard units and measuring equipment to estimate, then measure, a length, mass or capacity.</i></p> <p><i>In this area the practical aspect of Maths is key and children should be learning measures in real life contexts at all times.</i></p> <p><i>To follow on from FS practice, after daily registration there should be a five minute "calendar time". This should include</i></p> <ul style="list-style-type: none"> - Day - Date (both 'short' and 'long') - Weather <p><i>This should then lead into Q&A around the vocabulary of dates.</i></p> <p><i>Eg If it is Wednesday today what day will it be tomorrow?</i></p> <p><i>What day was it yesterday?</i></p> <p><i>It is April now, what month comes next?</i></p> <p><i>What will the date be next Wednesday?</i></p> <p><i>How many days until the last day of the month?</i></p> <p><i>In order to support sequencing and time a visual timetable should be displayed accompanied by clock faces which can show the times but progressing to children completing the times themselves. Children should use clock faces to support reading the time to the quarter hour on analogue clocks.</i></p> <p><i>Coins of different values up to £2 should be recognised.</i></p>

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GEOMETRY – PROPS OF SHAPE	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> recognise and name common 2-D and 3-D shapes, including: <ul style="list-style-type: none"> 2-D shapes [for example, rectangles (including squares), circles and triangles] 3-D shapes [for example, cuboids (including cubes), pyramids and spheres]. 	<p>Pupils handle common 2-D and 3-D shapes, naming these and related everyday objects fluently. They recognise these shapes in different orientations and sizes, and know that rectangles, triangles, cuboids and pyramids are not always similar to each other.</p>	<p><i>Children should be able to recognise and name Rectangle, Square, Circle, Triangle, Pentagon, Hexagon. Octagon</i></p> <p><i>It is expected that children will talk about sides and corners.</i></p> <p><i>Children should be able to recognise cube, cuboid, cylinder, sphere, and pyramids and should be able to talk about faces and edges.</i></p>
GEOMETRY – POS AND DIR	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> describe position, direction and movement, including whole, half, quarter and three-quarter turns. 	<p>Pupils use the language of position, direction and motion, including: left and right, top, middle and bottom, on top of, in front of, above, between, around, near, close and far, up and down, forwards and backwards, inside and outside.</p> <p>Pupils make whole, half, quarter and three-quarter turns in both directions and connect turning clockwise with movement on a clock face.</p>	<p><i>There are clear links here with both the Geography and Computing curriculum for Year 1, particularly in reference to positional and directional language.</i></p> <p><i>Obviously clear links should be made between turns and telling the time, talking about full turns, half turns & quarter turns.</i></p>

In all areas of mathematics, children should sort, classify and organise information using pictures, lists and tables.