

VISION FOR: Maths

The teaching of maths at Kobi Nazrul is steeped in the pedagogy of understanding the number system and encouraging all children to work mathematically. This is teaching through manipulatives and showing all aspects of maths including numbers, calculations and measures in a range of contexts. Teachers skilfully and confidently select a variety of examples to teach with and through, including a focus on maths in real life. Maths lessons have planned in opportunities for children to talk maths, explaining and proving their understanding. At Kobi Nazrul we ensure children are working at the correct pace for their understanding and as a result time frames and lesson groupings may differ. Lessons ensure children are able to show their understanding confidently through discussion with concrete understanding of mathematical terms. Children are confident to apply their mathematical skills in a range of examples.

PRINCIPLES AND RATIONALE

What

How

Why

(November 2022 Inset sharing document)

In every maths lesson prior learning is reviewed through questioning and other formative assessment techniques to ensure new learning builds on what children know. This builds on the pedagogy we share of children learning from what they already know and are able to make connections.

Learning is adapted to ensure learners are able to access the new learning. This is through a range of techniques such as modelling, questioning, the number of times children get to practise together and practical resources and other scaffolds.

Planning at Kobi Nazrul ensures time is spent to unpick the smaller steps within objectives. This is underpinned by the pedagogy of drilling deeper into the understanding to ensure children understand and able to develop the skills needed before moving on.

All children have the opportunity to regularly problem solve in maths, these are timed in regularly across the objectives and provide the base for discussion. Teachers develop problem solving ideas in line with the children's understanding such as from White Rose, Nrich and NCETM ideas. This is to extend and challenge thinking and provide a platform for discussion. This also provides opportunities for children to talk through their understanding of strategies e.g.) to prove if something is true or not. Teacher use these opportunities to assess and plan – the cycle continues.



Year Group:	Term 1	Term 2	Term 3
Nursery	<p>Nursery 2D shapes: circle, triangle Explore shape in the environment 3D Shapes: Explore block play Number: Making groups 1-1 correspondence, counting 1-5 (recite and count)</p>	<p>Nursery 2D shapes: circle, triangle, square Explore shape in the environment Number: 1-1 correspondence Counting : 1-5 (recite, count, recognise numerals) 3D shapes: Explore large scale construction</p>	<p>Nursery Shape: circle, triangle, square, rectangle Explore shape in the environment Joining materials (junk modelling) Number: 1-1 correspondence Counting : 1-10 (recite, count, recognise numerals)</p>
Reception	<p>Reception 2D shapes: circle, triangle, square, rectangle 3D shapes: create using large scale construction Number: 1-10 Adding</p>	<p>Reception 2D shapes: circles, triangles, squares, rectangle, pentagon 3D shapes: Independent junk modelling Number: 1-15 Subtracting Doubling Subitizing</p>	<p>Reception 3D Shapes: cone, sphere, cube, pyramid Number: 1-20 Sharing Halving Money – counting 1p coins</p>
Year One	<p>Number and Place value (within 10) Addition and subtraction (within 10) 2-D and 3-D shape</p>	<p>Number and place value (within 20) Addition and subtraction (within 20) Place value (within 50) Length and height Mass and volume</p>	<p>Multiplication and division Fractions Geometry – position and direction Place value (within 100) Money Time</p>
Year Two	<p>Number and Place value Addition and subtraction Shape (2d and 3d) including symmetry</p>	<p>Money (including addition and subtraction) Measurement: length and height Number: Multiplication and division Measurement: Mass, Capacity and Temperature</p>	<p>Fractions Measurement: Time Statistics Position and direction Number:</p>



<p>Year Three</p>	<p>Place Value Addition & Subtraction Multiplication and division (Focus on arrays, 2,3, 4, 8 times tables and related division facts)</p>	<p>Multiplication & division (multiplying and dividing 2 digit by 1 digit) Length and perimeter Fractions (ordering fractions, equivalent fractions) Mass and capacity</p>	<p>Fractions (of a set number) Money Time Shape statistics</p>
<p>Year Four</p>	<p>Place value Addition and subtraction Area Multiplication and division (multiply by 7, 9, 11 and 12 and related division facts)</p>	<p>Multiplication and division (multiply and divide by 10, 100 and multiply and divide up to a 3 digit by a 1 digit) Length and perimeter Fractions Decimals (ordering tenths and hundredths, dividing a 1.2 digit number by 10 or 100)</p>	<p>Decimals (compare, order and round decimals) Money Time Shape Statistics Position and direction</p>
<p>Year Five</p>	<p>Place value Addition and subtraction Multiplication and division (common factors, prime numbers, square numbers, multiply and divide by 10, 100, 1000) Fractions (equivalent, convert to mixed and improper, add within 1, add beyond 1 add and subtract 2 mixed numbers)</p>	<p>Multiplication and division (multiply 4 digit by 1, 2 digit by 2, 3 by 2, short division – 4 by 1, efficiency, division with remainders) Fractions (multiply unit, non-unit fractions and mixed numbers by an integer, find the whole) Decimals and percentages (compare fractions to decimals, decimals hundreds, thousandths, compare 3 decimal place) Perimeter and area Statistics</p>	<p>Shape Position and direction Decimals (adding and subtracting decimals) Negative numbers Converting units volume</p>



<p>Year Six</p>	<p>Place value Addition, subtraction, multiplication and division Fractions A (equivalent, compare, add and subtract)</p> <p>Fractions B (multiply and divide) Converting units</p>	<p>Ratio Algebra Decimals Fractions, decimals and percentages Area, perimeter and volume statistics</p>	<p>Shape Geometry Consolidation</p>
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<p>EYFS - CYCLES A AND B (Please see separate EYFS Subject overview for further detail)</p>	<p>What skills do we want children to develop across topics in the EYFS? (Birth to 5 Matters, Ranges 4,5,6):</p>
<p>Nursery</p>	<p>Children compare two small groups of up to five objects, saying when there are the same number of objects in each group, e.g. You've got two, I've got two. Same! Children explore differences in size, length, weight and capacity</p>
<p>Reception</p>	<p>Through play and exploration, beginning to learn that numbers are made up (composed) of smaller numbers. Children begin to recognise that each counting number is one more than the one before</p> <p>Children have opportunities to explore, partition and combine shapes to make new shapes with 2D and 3D shapes</p> <p>Children have the opportunity to Explore and add to simple linear patterns of two or three repeating items, e.g. stick, leaf (AB) or stick, leaf, stone (ABC)</p> <p>Children are increasingly able to order and sequence events using everyday language related to time</p>

