**Blackwater Long Term Plan Maths Nursery**



The first few years of a child’s life are especially important for mathematics development. Research shows that early mathematical knowledge predicts later reading ability and general education and social progress.. Conversely, children who start behind in mathematics tend to stay behind throughout their whole educational journey.

There are six key areas of early mathematics learning, which collectively provide a platform for everything children will encounter as they progress through their maths learning at Blackwater Primary School, and beyond. The maths curriculum for nursery is organised into key concepts (not individual objectives), which underpin early mathematics learning for our three and four year olds. Each half term has a key focus with key concepts being revisited and embedded through group sessions and continuous provision..

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|  | Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1  | Summer 2 |
| Termly Focus | Cardinality and counting | Comparison | Composition | Pattern | Shape and space | Measures |
| Number sense | Counting, number rhymes and songs and maths through stories are revisited daily. |
| Early Mathematics | There are six main areas that underpin children’s early mathematical learning:* Cardinality and counting: understanding the cardinal value of a number refers to the quantity or’ how manyness’ of objects it represents.
* Comparison: understanding that comparing numbers involves knowing which numbers are worth more or less than each other.
* Composition: understanding that one number can be made up of two or more smaller numbers.
* Pattern: looking for and finding patterns helps children notice and understand mathematical relationships.
* Shape and Space: understanding what happens when shapes move or combine with other shapes, is key in developing wider mathematical thinking.
* Measures: comparing different aspects such as length, weight and volume.
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| Small steps progression  | Progression across these key areas of mathematics are detailed in the progression in ‘Development Matters’ 2020NCETM provides guidance on the 6 key areas of early mathematics. |
| ContinuousProvision | Maths activities in continuous provision will link to focus of maths learning for the week. |
| Assessment | End of term summative assessments.Observations during group learning and CP on Tapestry |
| Links to EYFS | The nursery maths programme lays the foundations essential to progress in learning in mathematics in EYFS and beyond This is achieved by children having a broad and varied experience of activities to develop the 6 key areas of mathematical understanding detailed above. |
| By the end of the nursery year the children will be able to: Counting, cardinality* consistently recite the correct sequence of numbers
* collect nine from a large pile, e.g. nine pencils from a pot?
* subitise (instantly recognise) a group that contains up to four, then five, in a range of ways, e.g. fingers, dice, random arrangement
* select a numeral to represent a quantity in a range of fonts, e.g. \textup{\textsl{4}}, \texttt{4}?
* correct a puppet who thinks the amount has changed when their collection has been rearranged?

Comparison* state which group of objects has more? Can they do this with a large or small visual difference?
* compare two numbers and say which is the larger?
* Compare objects in terms of size, weight and capacity

Composition* Subitise up to 3 objects
* Subitise smaller groups within a larger group of objects
 | Pattern* Identify patterns around them
* Use informal language e.g. spotty, stripy etc continue, copy and create an AB pattern?
* identify the pattern rule (unit of repeat) in an AB pattern?
* Notice an error in a pattern.

Shape* select and rotate shapes to fit into a given space?
* use positional vocabulary, including relative terms, to describe where things are in small-world play?
* show intentionality in selecting shapes for a purpose, such as cylinders to roll?
* make a range of constructions, including enclosures, and talk about the decisions they have made?
* see shapes in different orientations and recognise that they are still that shape?
* recognise a range of triangles and say how they know what they are?

Measure* ifind something that is longer, shorter, heavier, lighter (etc.) than a reference item?
* find an appropriate container for a specific item?
* describe the location of something using positional language?
* accurately use the relative terms 'yesterday' and 'tomorrow'?
* order a short sequence of events?
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| Half term | Week 1 | Week 2 | Week 3 | Week 4Counting  | Week 5Cardinality | Week 6 | Week 2 |
| Daily number rhymes and songs | Counting, cardinality, comparing |
| Autumn 1 | Take part in counting rhyumes and songs. | Say the numbers in sequence 1,2,3,4,5 | Compare amountsSaying more or less | Develop counting like behaviour saying sounds, pointing – saying some number words. | Subitising – recognising up to three objects without counbting.  | Recite numbers past 5. | Develop counting: say one number for one item.Saying numbers in sequence. |
| Fluency Starters | Count up to 5 Singing number rhymes and songs. |
| Number Sense | Daily number sense through daily routine and continuous provision |
| Autumn 2 | Cardinality – last number counted is the total in the set. | Show fingers up to 5. | Link numeral to quantity.1,2 | Link numeral to quanity3,4 | Solve real world problems up to 4 | Compare usingMore than less thenFewer than | Comparing relating to size, weight and capacity  |
| Fluency Starters | Count up to 5 Count backwards 5-0Singing number rhymes and songs.Show me up to 5 fingers (looking). Show me up to 5 fingers (bunny ears) |
| Number Sense | Daily number sense through daily routine and continuous provision |
| Spring 1 | Subitise up to 3 | Conservation:The number of objects does not change because they are moveda around. | Subitise smaller groups within a larger group. | Link numeral to quantity5 | Solve every day problems within 5 | Compare using more than less than fewer than | Coparing relating to size, weight and capapcity |
| Fluency Starters | Count forwards and backwards up to 10Singing number rhymes and songsShow me up to 5 fingers(looking). Show me up to 5 fingers (bunny ears) |
| Number Sense | Daily number sense through nursery routine and continuous provision |
| Spring 2 | Counting sequence 0-5Missing numbers Spot the mistakes | Repeating AB patternsCopy and Continue | Repeating AB pattenrsCreate – spot mistakesLink to music patterns | Repeating AB linked to 2D shape | Sequence events in a story:First then after before | Use vocabulary of time to describe eventsEvery day in the morning | Link AB, ABB, AAB patterns to countingLink to numeral |
| Fluency Starters | Count forwards and backwards up to 10Singing number rhymes and songsShow me up to 5 fingers(looking). Show me up to 6,7 fingers (bunny ears) Link to 5 and some more |
| Number Sense | Daily number sense with rekenrek |
| Summer 1 | Select shapes for building eg flat surfaces  | Combine shapes to make bigger ones – link to positional language | Explore 2D shapes.In different orientations – and explain how they know what they are. | Link shape identification to counting and cardinality. | Use positional language in playUse Rosie’s walk story | Explore positional language using beebot./PE | Use shapes comparing size, weight and capacity |
| Fluency Starters | Count forwards and backwards up to 10Singing number rhymes and songsShow me up to 5 fingers(looking). Show me up to 6,7 fingers (bunny ears) Link to 5 and some more |
| Number Sense | Daily number sense with routine and continuous provision. |
| Summer 2 | AssessmentCompare size Using vocab length, heighrtLonger shorter taller shorter | AssessmentCompare size in terms of weightHeavier than lighter than same weight as | Data Submission | Compare capacity/volumneFull overflowing half full empty  | Sequence eventsFirst, Next, After that when exploring obstacle courses and positional language. | Link quantitiesnumeral EYFS prepNumber blocks | Link quantitiesnumeral EYFS prepNumber blocks  |
| Fluency Starters | Count forwards and backwards up to 10Singing number rhymes and songsShow me up to 5 fingers(looking). Show me up to 6,7 ,8,9,10 fingers (bunny ears) Link to 5 and some more |
| Number Sense | Daily number sense through routine and continuous provision |