EYFS: Mathematics

In our Early Years at Henley Green, we recognise the importance of the Maths strand of the curriculum to support our children to achieve our key outcomes, alongside the ELGs in readiness for the Key Stage 1 curriculum.

This development plan has been written to support our 'Intent Statement' and the 'Educational Programmes' in the statutory framework. We have used the 'Development Matters' document alongside the 'Mastering the Curriculum' and 'NCTEM Mastery in Number Programmes', as our curriculum guidance to ensure that the skills outlined are progressive and appropriate to the age and stage of the children.

Educational Programme: Mathematics

Developing a strong grounding in number is essential so that all children develop the necessary building blocks to excel mathematically. Children should be able to count confidently, develop a deep understanding of the numbers to 10, the relationships between them and the patterns within those numbers. By providing frequent and varied opportunities to build and apply this understanding - such as using manipulatives, including small pebbles and tens frames for organising counting - children will develop a secure base of knowledge and vocabulary from which mastery of mathematics is built. In addition, it is important that the curriculum includes rich opportunities for children to develop their spatial reasoning skills across all areas of mathematics including shape, space and measures. It is important that children develop positive attitudes and interests in mathematics, look for patterns and relationships, spot connections, 'have a go', talk to adults and peers about what they notice and not be afraid to make mistakes

Mathematics – Early Learning Goals

Statutory ELG: Number

Children at the expected level of development will:

- Have a deep understanding of numbers to 10, including the composition or 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 fact) and some number bonds to 10, including double facts.

Statutory 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 even and odds, double facts and how quantities can be distributed equally.

	Term 1	Term 2
Autumn	**Purposeful Project : All about me** - Combine objects like stacking blocks and cups. Put objects inside others and take them out again. - Climb and squeeze themselves into different types of spaces. - Take part in finger rhymes with numbers	**Purposeful Project: What's Outside?** - Combine objects like stacking blocks and cups. Put objects inside others and take them out again. - Build with a range of resources. - Take part in finger rhymes with numbers
Spring	**Purposeful Project : Places to Go** - Take part in finger rhymes with numbers - Develop counting like behaviour, such as making sounds, point or saying some numbers in sequence.	**Purposeful Project : Eggs** - Develop counting like behaviour, such as making sounds, point or saying some numbers in sequence. - Complete inset puzzles - Take part in finger rhymes with numbers
Summer	**Purposeful Project : Healthy me** - Take part in finger rhymes with numbers - Count in everyday contexts, sometimes skipping numbers – '1,2,3,5' - Reacting to changes of amount in a group of up to three items	**Purposeful Project : What Grows?** - Compare sizes, weight etc, using gestures and language – 'bigger/little/smaller;, 'high/low', 'tall', 'heavy'. - Take part in finger rhymes with numbers - Notice patterns and arrange things in patterns - Compare amounts, saying 'lots', 'more' or 'same'

How will I see this in place?

- Planned short carpet time sessions with focus Nursery rhymes and repetitive stories linked to Purposeful projects/ cultural events.
- Planned continuous and enhanced provision activities with a focus on these skills.
- Information poster identifying the learning and vocabulary for the week.
- Indoor and outdoor provision using a range of spaces and learning areas. (For e.g. mark making area, sensory area, construction area, MUGA, adventure garden)
- Adult interactions supporting children to practise and develop these skills.
- Planned experiences:
  Coombe Abbey (Autumn Term)
  Little Lane Play village, Guinea Pigs, Chicks, Farm visit, Moat House Café (Spring Term)
  Soft play trip and Sports' Day (Summer Term)

Nursery – Skills Progression

	Term 1	Term 2
Autumn	**Purposeful Project : Autumn Time** - Recognise colours (red, yellow, blue, green, purple).	**Purposeful Project : How I celebrate**

	- Recognise matching objects (buttons, shoes, towers) - Recognise matching sizes (handprints which are the same size) - Recognise matching number shapes (Numicon) - Sort objects by size, colour and shape. - Identify how objects have been sorted.	- Be able to count 1 and 2 objects by touching or pointing (1-2-1 Correspondence) - Be able to match the numeral 1 and 2 to an image showing that amount. - To recognise 1 and 2 dots, with 2 dots set in a dice pattern, without needing to count them. - Show the number 1 and 2 on their fingers without needing to count them. - Recognise without needing to count the number 3 in varying arrangements and sizing. - Describe, extend and create AB patterns. - Be able to notice and correct an error in an AB pattern.
Spring	**Purposeful Project : Around the world** - Be able to count 3 objects by touching or pointing (1-2-1 Correspondence) - Be able to match the numeral 3 to an image showing that amount. - To recognise 3 dots set in a dice pattern, without needing to count them. - Show the number 3 on their fingers without needing to count them. - Recognise without needing to count the number 3 in varying arrangements and sizing. - Explore the different pairs of numbers that make up the number 3. - Compare the height of objects using the words tall or short - Compare the length of objects using the words long or short - Use balance scales to investigate heavy and light items and say which item is heavier or lighter.	**Purposeful Project : On the Farm** - Be able to count 4 objects by touching or pointing (1-2-1 Correspondence) - Be able to match the numeral 4 to an image showing that amount. - Show the number 4 on their fingers without needing to count them. - Explore the different pairs of numbers that make up the number 4. - Be able to sequence pictures from a nursery rhyme, daily routine or familiar story. - Understand positioning words, 'on, under, in, out, in front, behind' through words alone.
Summer	**Purposeful Project : Growth and Change** - Be able to count 5 objects by touching or pointing (1-2-1 Correspondence) - Know that the last number they reach when counting a set of objects (up to 5) tells them how many there are. - Begin to recite some numbers past 5 (not necessarily correctly) - Be able to match the numeral 5 to an image showing that amount. - Show the number 5 on their fingers without needing to count them. - Explore the different pairs of numbers that make up the number 5. - Identify full and empty containers. - Identify containers that are nearly full or empty. - Identify the container which would hold the most/least.	**Purposeful Project : People around me** - Look at two sets of objects and be able to say which one has more. - Look at two sets of objects and be able to say which one has fewer. - Look at two sets of objects and be able to say which set has more and which set has fewer. - Be able to identify the 2D shapes: circle, triangle and rectangle and use informal language to describe some of the properties. - Be able to identify the 3D shapes: cube, cuboid, cylinder and sphere and use informal language to describe some of the properties. - Use a number line to say which number comes after/before a given number - Sequence numbers up to 5. - Identify a missing number on a number line.
How will I see this in place? - Planned short maths carpet time sessions with focus Nursery rhymes. - Planned continuous and enhanced provision activities with a focus on these skills.		

- Continuous provision posters, supporting adults to identify the learning in different learning areas.
- Adult interactions supporting children to practise and develop these skills.
- Indoor and outdoor provision using a range of spaces and learning areas. (For e.g. mark making area, sensory area, construction area, MUGA, adventure garden)
- Daily routines such as getting ready to go outside, snack time.
- Planned experiences:
  Theatre trip and Christmas songs performance (Autumn Term)
  Chicks and Farm visit (Spring Term)
  Soft play trip, Caterpillars and Sports' Day (Summer Term)

Reception – Skills Progression

	Term 1	Term 2
Autumn	**Purposeful project: All about me** ***There will be some overlap of skills covered from Nursery, due to ensuring pupils who have not attended a Nursery setting prior to Reception, are given the opportunity to develop the necessary skills***	**Purposeful project: Henley Green Nativity Show** ***There will be some overlap of skills covered from Nursery, due to ensuring pupils who have not attended a Nursery setting prior to Reception, are given the opportunity to develop the necessary skills***

	Number - develop counting skills and knowledge, including that the last number in the count tells us 'How many' (cardinality); to be accurate in counting, each thing must be counted once and once only and in any order; the need for 1:1 correspondence; understanding that anything can be counted, including actions and sounds - subitise different arrangements up to 5, both unstructured and structured, including using the Hungarian number frame. - Recognise dice patterns up to 5 without needing to count them. - connect quantities and numbers to finger patterns and explore different ways of representing numbers on their fingers up to 5. - compare sets of objects by matching. **Geometry** - Select, rotate and manipulate shapes to develop spatial reasoning skills. - Compose and decompose shapes so that children recognise a shape can have other shapes within it, just as numbers can.	**Number** - begin to develop the language of 'whole' when talking about objects which have parts. - compare sets of objects by matching - hear and join in with the counting sequence and connect this to the 'staircase' pattern of the counting numbers, seeing that each number is made of one more than the previous number. - Recognise numerals to 5, match numerals to quantities and order numerals. - Begin to represent numbers up to 10 using fingers. - Connect quantities and numbers to finger patterns and explore different ways of representing numbers on their fingers up to 5. - subitise different arrangements up to 5, both unstructured and structured, including using the Hungarian number frame. - Recognise dice patterns up to 5 without needing to count them. **Measures** - Compare length, weight, and capacity.
Spring	**Purposeful Project : Space** **Number** - continue to develop their subitising skills for numbers within and beyond 5, and increasingly connect quantities to numerals - begin to identify missing parts for numbers within 5 - explore the structure of the numbers 6 and 7 as '5 and a bit' and connect this to finger patterns and the Hungarian number frame. - Order number representations and numerals to 8. **Measures** - Compare length end height. - Order and sequence time	**Purposeful Project : Animal Babies** **Number** - focus on equal and unequal groups when comparing numbers - understand that two equal groups can be called a 'double' and connect this to finger patterns - sort odd and even numbers according to their 'shape' - explore a range of representations of numbers, including the 10-frame, and see how doubles can be arranged in a 10-frame - Continue to explore the structure of the numbers 6 and 7 as '5 and a bit' and connect this to finger patterns and the Hungarian number frame. - Order number representations and numerals to 10. **Pattern** - Continue, copy and create repeating patterns.
Summer	**Purposeful project : Just Imagine** **Number** - develop conceptual subitising skills including when using a rekenrek - continue to develop their counting skills, counting larger sets as well as counting actions and sounds - explore a range of representations of numbers, including the 10-frame, and see how doubles can be arranged in a 10-frame - continue to identify when sets can be subitised and when counting is necessary	**Purposeful project : Growing** **Number** – join in with verbal counts beyond 20, hearing the repeated pattern within the counting numbers – continue to develop their counting skills, counting larger sets as well as counting actions and sounds – begin to generalise about 'one more than' and 'one less than' numbers within 10 – compare quantities and numbers, including sets of objects which have different attributes – continue to develop a sense of magnitude, e.g. knowing that 8 is quite a lot more than 2, but 4 is only a little bit more than 2

	Geometry/Pattern – Select, rotate and manipulate shapes to develop spatial reasoning skills.	**Geometry/Pattern** – Select, rotate and manipulate shapes to develop spatial reasoning skills. – Compose and decompose shapes so that children recognise a shape can have other shapes within it, just as numbers can. – Continue, copy and create repeating patterns
How will I see this in place? - Planned short maths carpet time sessions. - Planned continuous and enhanced provision activities with a focus on these skills - Continuous provision posters, supporting adults to identify the learning in different learning areas. - Adult interactions supporting children to practise and develop these skills. - Indoor and outdoor provision using a range of spaces and learning areas. (For e.g. mark making area, sensory area, construction area, MUGA, adventure garden). - Daily routines and transitions such as getting ready to go outside, snack time. - Planned experiences: Forest Schools (throughout the year), Cool Critters, Theatre trip and Nativity performance (Autumn Term) Space Dome, Chicks, Easter crafts (Spring Term) Language and Culture day, Warwick Castle Trip, Sports' Day (Summer Term)		