**Leverington Primary Academy**

**Mathematics Long Term Plan 2023-2024**

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| **STATUTORY EDUCATIONAL PROGRAMME**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. |

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|  | **Autumn 1** | **Autumn 2** | **Spring 1** | **Spring 2** | **Summer 1** | **Summer 2** |
| **Possible themes, interests, lines of enquiry** | My Family and MePeople Who Help UsNursery RhymesAutumnHarvest (Pumpkins) | Bonfire NightDiwaliChristmas around the World | WinterSpace | Growing and ChangingFarm animalsSpringPlants | Transport | SummerMinibeastsRockpools/SeasideLife cycles – butterflies, beans, sunflower |
| **Celebrations and experiences** | Harvest festival | DiwaliBonfire NightChildren In NeedFire service visitRemembrance DayChristmas | Chinese New YearValentine’s Day | World Book DayMothering SundayPancake DayEaster | Transport in our local area | Butterfly garden |
| **The Reception Year provides the foundations for many skills the children will build upon in Year 1.****Year 1 expectations** | * Place value within 10 – 20 - 50 – 100.
* Addition and subtraction within 10. Using part-whole models. Fact families. Systematic methods to find number bonds to 10.
* Geometry – shape. 2D and 3D shapes.
* Measurement – length, height, weight and volume. Comparing and measuring.
* Multiplication and division – counting in 2s, 5s and 10s, making equal groups, arrays. Doubling and halving.
* Fractions – making a half, making a whole. Finding a half and a quarter of a shape and quantity.
* Math Counting Racks / Arithmetic Calculating Frames Similar to Rekenrek  Clip ArtGeometry – position and direction. Describing turns.
* Money – recognising coins and notes. Counting in coins.
* Time – before and after. Time to the hour and half hour.
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****The knowledge, skills, understanding and planned experiences gained by the end of the Reception Year…

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|  | **Autumn 1** | **Autumn 2** | **Spring 1** | **Spring 2** | **Summer 1** | **Summer 2** |
| **Mastering Number** | Children will engage with daily activities to develop counting and subitising skills.* Subitising within and up to 5.
* Identify how many objects up to 10 with 1-to-1 correspondence.
* Ordering numerals to 10.
* Identifying subgroups.
* Partitioning a given set and talk about how it is partitioned.
* Composition of 5.
* More/fewer in a set of objects.

Number facts – 1 more/1 less; doubles up to 5; subtraction facts; some bonds to 10. |
| **White Rose schemes of learning** | * **Match, sort and compare** – Explore sorting and matching at a deeper level. Think about colour, size, shape and texture of objects to support children’s language development and descriptions. When looking at buttons, think about the number of holes.
* **Talk about measure and pattern.**

Compare amounts, compare size, mass and capacity, exploring pattern. | * **It’s Me, 1, 2, 3!** Representing, comparing and composition of 1, 2 and 3. 1 more and 1 less.
* **Circle and triangles.** Circles and triangles. Positional language.
* **1, 2, 3, 4, 5.**

Find, subitise and represent 4 and 5. 1 more and 1 less. Composition of numbers 1-5. **Shapes with 4 sides**Identify, name and combine shapes with 4 sides. Shapes in the environment. Day and night.  | * **Alive in 5!** Introducing zero. Find, subitise and represent 0 to 5. 1 more and 1 less. Composition to 5. Conceptual subitising to 5.
* **Mass and Capacity**

Compare mass. Find a balance. Explore and compare capacity.* **Growing 6, 7 and 8!**

Finding and representing 6, 7 and 8. 1 more and 1 less. Composition of 6, 7 and 8. Finding and making doubles to 8. Making pairs, odds and evens. Combining two groups.  | * **Length, height and time.**

Explore and compare length and height. Order and sequence time. * **Building 9 and 10.**

Finding and representing 9 and 10. 1 more and 1 less. Composition to 10. Bonds and doubles to 10. Odd and even. **Explore 3D shapes**Recognise and name 3D shapes. Find 2D shapes within 3D shapes.Shapes and patterns in the environment. Continue patterns.  | * **To 20 and beyond.** Build numbers beyond 10, count patterns beyond 10, spatial reasoning, match, rotate and manipulate.
* **How many?**

Add more. Take away.* **Manipulate, compose and decompose.**

 Select, rotate and manipulate shapes. Compose and decompose shapes. Choose shapes for a purpose. Copy 2D shapes. See 2D shapes within 3D shapes.  | * **Sharing and grouping.** Doubling, sharing and grouping, even and odd.
* **Visualise, build and map.**

Create and explore pattern rules. Visualise and describe patterns. Give instructions to build. Explore mapping and create maps.**Make Connections** Deepening understanding, patterns and relationships, spatial mapping. |
| **Number and numerical patterns** | * Use number names to 10 and count, sometimes accurately.
* Represent numbers using marks, fingers or digits.
* Say when two small groups have the same number of objects.
* Identify numerals in the environment.
 | * Begin to familiarise themselves with the tens structure of the number system.
* Counting up to three or four objects by saying one number name for each item.
* Count objects to 10 and begin to count beyond 10.
* Count out up to 6 objects from a larger group.
* Represent numbers on a 5-frame.
* Select the correct numeral to represent 1 to 5, then 1 to 10 objects.
* Find 1 more or 1 less than a number to 10.
* Recognise some numerals of personal significance.
* Link the number symbol with its cardinal value.
 |  | * Show a number of fingers together without counting.
* Begin to use ‘teens’ to count beyond 10.
* Count an irregular arrangement of up to 10 objects.
* Estimate how many objects they can see and check by counting them.
* Use the language of ‘more’ and ‘fewer’ to compare two sets of objects.
* Find the total number of items in two groups by counting all of them.
* Begin to use the vocabulary involved in adding and subtracting.
* Understand addition up to 5 using all combinations, then 6, 7, 8, 9 and 10.
 |  | * Have a deep understanding of numbers 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 to 5 and some number bonds to 10, including subtraction.
* 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.
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| **Shape, space and measure** | * Talk about the routine of the day.
* Use comparative language like ‘taller’, ‘shorter’, ‘the same’.
* Start to identify shapes in the environment.
* Starting to find appropriate shapes for certain tasks.
* Ask questions about their observations of differences and similarities.
* Starting to make more meaningful pictures, patterns and arrangements.
 | * Talk about the routine of the day and use language like before and after.
* Use comparative language, such as ‘taller’, ‘shorter’, and ‘the same’.
* Being more confident in identifying shapes in the environment.
* Recognise particular shapes that may be useful for certain tasks.
* Make more meaningful pictures,
 | * Recall the names of some 2D and 3D shapes.
* Begin to compare length, weight and capacity.
* Identify money and use money in play.
* Order and sort according to simple properties.
* Use the language of direction when programming toys.
 | * Begin to experiment with length, height and capacity.
* Begin to compare length, weight and capacity.
* Identify money and use money in play.
* Recall the names of some 2D and 3D shapes.
* Use the language of direction.
 | * Create and describe patterns.
* Explore characteristics of everyday objects and shapes and use the mathematical language to describe them.
 | * Use everyday language to talk about size, weight, capacity, position, distance, time and money to compare quantities.
* Create and describe patterns.
* Explore characteristics of everyday objects and shapes and use the mathematical language to describe them.
* Use money with increasing confidence.
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