

# Waltham Forest Early Years Guidance

## Maths is everywhere!

The purpose of this guidance is to support and guide practitioners in understanding the mathematical experiences young children have every day, whilst also considering their own understanding and confidence in developing a mathematically rich provision.

### What is 'Everyday Maths?'

The world is a mathematical place, we all use maths many times a day. Numbers and shapes, measuring and solving problems are all needed for simple tasks like measuring out washing powder, making the right number of sandwiches for lunch or cutting a cake in equal portions.

### Why?

There is strong evidence to suggest that supporting children's early mathematics, has a positive impact on long term attainment in mathematics and in other areas of learning and development. For young children, maths is not just a cognitive process, but also a social, emotional and physical experience; a problem shared is a problem halved! Maths is one of the seven areas of the EYFS and is used to develop a child's confidence and ability with numbers, but also to encourage their understanding of shapes, space and measures.

### How?

Young children need help to understand what maths is used for and you can do this by talking about the maths you use in your day-to-day routine. Maths is creative, challenging and a wonderful way of looking at life and exploring the world. Creating a mathematically rich

environment, using everyday routines, providing activities or resources that support children's problem-solving skills and using mathematical language daily, can all support and enhance children's mathematical understanding and experiences.



### Where?

Everywhere! Children between the age of one to five years old are beginning to explore patterns and shapes, compare sizes and count objects. When it comes to preschool children, they use a variety of methods to problem-solve and talk about their findings. Maths play is evident in pretend play, block play, literacy play, outdoor play and science play, for example.

### Role of the Adult?

Practitioners play an important role in influencing and being a role model for children by providing opportunities for them to learn and develop new skills. Adults need to allow children to direct their own play and support them by enhancing or extending their play.

Children need opportunities to: *Discover and create, use number concepts and skills to explore, develop confidence in their ability to think things through, solve meaningful problems and create connections to help discover relationships (e.g. characteristics).*

## Creating a Mathematically Rich Environment

A rich environment means giving children lots of opportunities to play with maths concepts in their day-to-day lives.

- Place numerals on storage boxes, ask children, can you put the cars away in tray number 4?
- Number toilets with a numeral.
- Add scales and recipe books/take away leaflets/food magazines to the home corner.
- At snack and lunch times, the concepts of shape, size, quantity and length can be discussed. Whether cutting sandwiches, pouring water or counting the number of people at the table.
- Sing lots of nursery rhymes; they use patterns in language and speech, and by recognising patterns in language, children are also able to recognise patterns in numbers, which helps with mathematical problem solving. There are so many nursery rhymes that can be shared with children, for example, five little ducks, five little-speckled frogs, One Two Three Four Five once I caught a fish alive.
- Sand and water play gives children the opportunity to experience and explore measuring. By offering measuring jugs, funnels and different sized containers, children are able to transport the sand or water between the different containers developing early mathematical language such as 'empty' and 'full.'
- Mathematics can be displayed in the creative area in many ways. Offering cutting materials such as scissors can allow the children to alter and reshape paper, giving them the experience of creating shapes and measuring.



- There are many stimulating picture books with stories based around numbers that you can enjoy with your children:  
Handa's Surprise, Three Little Pigs, Goldilocks and the Three Bears, The Shopping Basket, The Very Hungry Caterpillar, Jack and the Beanstalk, and We're Going on a Bear Hunt
- Provide open-ended resources and loose parts. Loose parts provide opportunities for sorting, patterning, comparing, measuring, counting, categorising and mathematical language.
  - Maths can be observed in the outside environment in a range of ways. Using pebbles to write numbers on enables the children to experience numbers in a fun way. Mud kitchens can also be a great way for children to experience weighing and measuring to further their mathematical skills.
  - Block play provides children with opportunities to practice mathematical skills. They can select blocks of different sizes and shapes and compare surface volumes and areas. It involves measuring lengths, widths, and heights (if only by eye).
- Make the most of everyday routines to talk about the quantity of children who are in the room, playing in the sand, listening to the story. Talk about how many slices of apple or potatoes there are on the plate at lunchtime, or wheeled toys in the shed. Entwine time conversations into daily routines.... 'It's 12pm, time for lunch,' etc.
- Ask children to solve real mathematical problems: How many pieces of fruit or cartons of milk will we need at snack time? How many buckets of water are needed to fill up the water tray? Is this toy box the right shape to fit in the cupboard?

## Activities to Support Maths:

0-2 year olds:

- Counting natural resources, using plenty of number language
- Going on a 'Shape hunt,' introducing basic shapes
- Exploring a 'Number Hunt' – finding different numbers around an area and introducing numbers from 1-5
- Finding different objects and using them to build with or stack with
- Using counting songs e.g. 5 little ducks/speckled frogs

2-3 year olds:

- Comparing sizes of sticks/objects
- Going on a scavenger hunt for 'big' and 'small' objects
- Collecting different objects and counting them, focusing on the numbers 0-5
- Building shapes with natural objects, focusing on basic shapes like squares, circles and triangles

3-5 year olds:

- Gathering natural objects and counting them, focusing on the numbers from 1-10
- Symmetry with objects
- Using natural objects to create different patterns
- Using objects to create numerals to help with number recognition
- Using rulers/measuring tapes to measure objects



### The Three Little Pigs

#### Activity Ideas:

- Build your own house using sticks, straw and bricks.
- Compare sizes of each house.
- Shapes within the story.
- Sequencing of the story.
- How many sticks/straws/bricks do you need for each house?



### Goldilocks and the Three Bears

#### Activity Ideas:

- Categorising objects.
- Comparing sizes.
- Following a sequence.
- Fixing broken objects e.g. baby bear's chair.
- Mixing ingredients to make porridge.
- Find resources and categorise them into hard and soft.



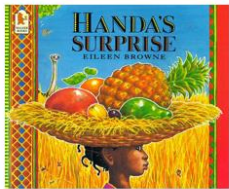
## We're Going on a Bear Hunt

*We're Going on a Bear Hunt*  
Michael Rosen Helen Oxenbury

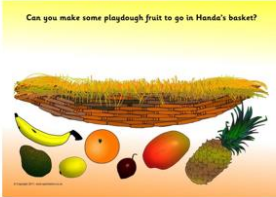


### Activity Ideas:

- Bears footprints with numbers – categorising objects into quantities.
- Textures of each scene from the story, comparing the texture and how it feels.
- Compare sizes of each character.
- Sequencing of the story.

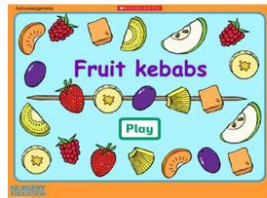


### Handa's Surprise



### Activity Ideas:

- Making fruit with playdough (patterns and shapes.)
- Measuring fruit for smoothies or fruit kebabs.
- How many fruits can you fit in a basket.
- How heavy is the basket if you try and carry it?
- Comparing sizes of each fruit.
- How many fruits and animals in the story?



### Websites and Further Information:

[Nrich Maths EYFS Activities](#)  
[Improving Maths in the Early Years – Education Endowment Foundation](#)

[Mathematics in the Early Years DfE](#)

[Early Education – Maths is Everywhere](#)

[Waltham Forest The Hub](#)