🕼 NCCA 📰 🔹 Primary Mathematics Toolkit – Support material

Measures: Measuring – Suggestions for learning at home

Why learning about measuring is important

When we measure something, we are figuring out "how much" of a certain quality it has. For example how long it is, how heavy it is, how much space it takes up, and so on. We use tools like rulers, scales, or measuring cups to do this. These tools help us to be more accurate, especially when we use standard units such as metres, kilograms, etc. which are agreed-upon ways of measuring that can be understood by everyone. Children come to school with early mathematical understandings developed from personal experiences, which are developed further in school. Measuring is an area of mathematics which we use all the time in daily life. A deeper understanding of measuring will help your child to understand the world around them.

IDEAS TO SUPPORT LEARNING

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- Use the language of measuring at home for length, weight, capacity and area and draw attention to activities which involve measures, e.g., recommended dosages for medicines, correct amount of detergent to use, determining cooking times for foods depending on weight.
- Ask your child to use their knowledge of measures when baking, e.g., weighing ingredients, measuring liquids. Adapt recipes depending on the quantity needed, e.g., if we need to make double the amount of cupcakes, how much flour do we need?
- Explore how measures are used in airports to weigh and measure the dimensions of baggage and check bags or suitcases at home for suitability.
- Involve children in creating or find benchmarks at/from home that can help them to estimate unknown measures, e.g., if I know that the distance between the table and the wall is 1m, then I can use that knowledge to estimate that the length of the kitchen counter is 2m.
- When shopping, encourage children to check the weight and capacity of items to make sure that you are getting the best value for your money!
- While reading with your child, emphasise the language of measuring with younger children. For older children use story settings or journeys as a stimulus to discuss distance.
- Involve children in planning short and long journeys. Find out distances online or using maps, and discuss the length of the journey if travelling by car, on foot, using public transport, etc.
- When gift wrapping, measure the dimensions of the gift (length, width, height) to determine the total surface area to be covered with wrapping paper and add a little extra for overlap and folding edges.
- Involve children in tasks involving area, e.g., measuring for a new tablecloth, carpet, wallpaper, etc.

BOOKS

- A Squash and a Squeeze, Julia Donaldson, 4+ years
- The Best Bug Parade, Stuart J. Murphy, 4+ years
- Might Maddie, Stuart J. Murphy, 4+ years
- Ernest, Catherine Rayner, 4+ years
- "Pardon?" Said the Giraffe, Colin West, 5+ years
- How Deep is the Sea?, Anna Milbourne, 6+ years
- How Big Was a Dinosaur?, Anna Milbourne, 6+ years
- Bigger, Better, Best!, Stuart J. Murphy, 6+ years
- The Dragon's Scales, Sarah Albee, 6+ years
- How High is the Sky?, Anna Milbourne, 6+ years
- Racing Around, Stuart J. Murphy, 7+ years
- Sir Cumference and the Dragon of Pie, Cindy Neuschwander, 10+ years
- * Your local library provides a wide range of free books and resources which support in developing children's mathematical learning.

GAMES / ACTIVITIES

- Measure the distance a paper airplane travels using standard units of measurement and non-standard units of measurement such as footsteps, hands, etc.
- Watch a clip of Limbo the popular game, based on traditions that originated on the island of Trinidad. The aim is to pass forwards under a horizontal bar without falling or dislodging the bar as it is raised lower each round. Play the game together at home and measure how low you can go!
- Engage in challenges at home to design and make a variety of structures, e.g., build the tallest free-standing tower using books. Encourage your child to explore, plan, design and evaluate their creations.

LEARNING ONLINE

- Help My Kid Learn www.helpmykidlearn.ie
- Scoilnet www.scoilnet.ie/primary/theme-pages/mathematics/
- Maths Week Ireland Parents' Zone www.mathsweek.ie
- Maths Eyes https://haveyougotmathseyes.com/

*Useful terms to search online: measuring, measures, learning, primary, maths, length, weight, capacity, area, quantities, units of measurement, games, activities

ARTS AND CRAFTS

YOUR OWN IDEAS

- Challenge children to create art with specific measurements, e.g., *a robot with short arms/10cm and long legs/20cm, a design with an area of 130 square cm.*
- Use the language of measuring when children are engaged in construction, e.g., *playing with junk art, creating imaginative structures.*
- Explore capacity by mixing coloured water in containers, e.g., jugs or bottles.
- Challenges, e.g., use one A4 sheet to make a paper chain longer than 1m, design and make container that can fit exactly 50 cubes.
- Look at and respond to the work of great sculptors, architects and craftspeople and discuss how they may have considered measuring in their work.