

Creating a Maths-Friendly Home: A Guide for Parents and Carers

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This guide is divided into five sections, each focusing on different aspects of family life. While this is not an exhaustive list, there are many ideas to incorporate maths into daily activities.

By making maths a natural part of everyday life, children can develop confidence and enthusiasm for the subject in fun and engaging ways!

1. At Home

Ideas & Activities

- **Time Talk:** Ask your child to determine what time you should leave the house to arrive at school on time.
- **Cooking Together:** Measure ingredients and set timers as a team. Let your child calculate how much more food is needed if guests are joining for dinner.
- **Shapes and Sizes:** Discuss the dimensions of household items. Look up fun facts, such as the tallest and shortest people or the biggest and smallest buildings.
- **Fair Sharing:** When serving food like pizza or cake, involve your child in dividing it equally among family members.
- **Problem Solving:** Encourage your child to solve real-life maths problems, like deciding how many apples to buy or estimating travel time when making multiple stops.
- **Data Collection:** Create a tally chart to gather family preferences, such as favourite animals or fruits.
- **Patterns and Structures:** Use everyday objects like coloured pencils, paint, or Play-Doh to make patterns. If your child is learning music, discuss counting patterns.

Skills being developed

- Measurement
- Comparison
- Problem-solving & reasoning
- Addition & Subtraction
- Multiplication & Division
- Fractions
- Pattern recognition
- Estimation
- Data Handling

2. Money & Maths

Once children understand the basics of money, they can engage in more advanced maths discussions and activities. Explain where money comes from and how it is used.

Ideas & Activities

- **Estimating Costs:** While shopping, have your child estimate the total cost of a few items.
- **Pocket Money Management:** Give them a small allowance and discuss what they can buy with it or how long it would take to save for a larger purchase.
- **Comparing Purchases:** Talk about the cost, weight, and value of different items.
- **Exploring Money Combinations:** Challenge them to figure out different ways to make £1 using various coins.
- **Handling Transactions:** Encourage them to give the correct amount when paying and verify the change received.

Skills being developed

- Shape Identification
- Addition & Subtraction
- Multiplication & Division
- Place Value
- Estimation
- Comparison
- Problem-Solving & Reasoning

3. Maths Through Play

Incorporating maths into play can make learning fun and engaging. Highlight the mathematical concepts involved in everyday games.

Ideas & Activities

- **Card Games:** Draw two cards and add, subtract, multiply, or divide their values. The highest total wins.
- **Guess the Number:** Pick a number between 0-100 and have them ask questions to determine what it is.
- **Building Blocks:** Use Lego or Jenga to discuss size, colour, weight, and shape. Predict how many blocks can be stacked before they fall.
- **Estimation Games:** Fill a jar with small items and have your child guess how many are inside before counting.
- **Directional Challenges:** Give them clues to locate an object using words like 'under,' 'besides,' or 'in front of.'
- **Board Games:** Play Snakes and Ladders, Connect 4, Jenga, or Dominos to practice counting and strategy.
- **Create a Game:** Have your child design a board game, including dice rules, and discuss the maths involved.

Skills being developed

- Counting
- Number Relationships
- Estimation
- Sequences & Patterns
- Problem-Solving & Reasoning

4. Maths Outdoors

Encourage your child to recognise and use maths while out and about in the community.

Ideas & Activities

- **Shape Hunt:** Spot different geometric shapes in buildings and signs. Identify 2D and 3D shapes, patterns, and symmetry.
- **Counting Games:** Play hopscotch, hide and seek, or skipping games that incorporate number sequences.
- **Dancing:** Let them create dance routines that involve counting beats and steps.
- **Sports & Speed:** Discuss speed, scores, angles, and time while playing sports. Challenge them to do as many star jumps as possible in one minute.
- **Giving Directions:** Have them guide you to local places using directional language and estimate travel times.
- **Stick Challenges:** Use sticks to form different shapes, like creating multiple triangles from a set number of sticks.
- **Community Exploration:** Estimate how many buildings are on a street or how far away a landmark is, then check for accuracy.

Skills being developed

- Pattern Recognition
- Multiplication & Division
- Counting
- Estimation
- Angles
- Time & Speed
- Measurement
- Problem-Solving & Reasoning

5. Books, TV & Media

Books and television can be great tools for fostering an interest in maths. Encourage discussions about numbers in stories and shows.

Book Recommendations

For Younger Children:

1. *The Shopping Basket* – John Burningham
2. *365 Penguins* – Jean-Luc Fromental
3. *We're Going on a Bear Hunt* – Michael Rosen
4. *The Girl Who Never Made Mistakes* – Gary Rubinstein (teaches resilience and learning from errors)

For Older Children:

1. *The Dangerous Book for Boys* – Conn & Hal Iggulden
2. *The Daring Book for Girls* – Andrew J. Buchanan & Miriam Peskowitz (activities involving maths, such as compass navigation and code writing)
3. *Matilda* – Roald Dahl
4. *Danny the Champion of the World* – Roald Dahl (includes problem-solving elements)

TV, Film & Radio

- **Radio:** *BBC Megamaths* – A detective-style radio show solving mental maths problems.
- **TV & Film:** Maths can be found everywhere! Ask questions like:
 - How fast are the cars in *Top Gear*?
 - What scores are given in *Strictly Come Dancing*?
 - How many years ago did the historical events in a documentary take place?