



Top Tips for Parents

- **Build strong, positive attitudes about math.** When children feel positively engaged and successful, they are more likely to stick with an activity or a problem to find a solution.
- **Begin with activities that meet your child’s level of mathematical understanding.** Early success in solving problems will build your child’s confidence. Gradually move to activities that provide more challenge for your child.
- **If you and your child are more comfortable in a language other than English, use it.** Your child will understand concepts better in the language that he or she knows best.
- **Make learning math a positive experience. Don’t talk negatively about math to your child—it can lead to “math anxiety” (a proven cause of low achievement).**
- Schedule math homework at the same time in a quiet location every day. Be available during this period to talk with your child. Create a math homework toolkit with pencils, erasers, ruler, protractor, graph paper, counters (beads or beans) and a calculator.
- When helping with homework, follow the method being taught. Don’t teach short cuts that could confuse your child. Do not say, “Let me show you my way – it’s simpler and faster.”
- Be relaxed and positive. You are not expected to be an expert. You are there to encourage learning.

Talking About Math:

Talking about mathematics with your child – whatever his or her age – helps strengthen his or her mathematical reasoning and understanding. Some ways to keep the talk engaged and focused while you support your child include:

1. *Revoice* - Repeat what you heard your child say, then ask for clarification (e.g., “So you are saying it’s an odd number?”).
2. *Repeat/Restate* – Ask your child to restate your reasoning (e.g., “Can you repeat what I said in your own words?”).





3. *Reason* – Ask your child to apply his or her own reasoning to someone else's reasoning (e.g., "Do you agree or disagree? Tell me why.").
4. *Adding On* – Prompt your child to participate further (e.g., "What more would you add to that?").
5. *Think Time* – Wait several seconds (try five) to give your child time to think (e.g., "Take some time to think."). You may be surprised by how hard it is to stay silent in that time!

Everyday Mathematics:

Daily Decisions

We all use mathematics daily in what we do. Involve your child in using numbers to solve problems and make those everyday decisions with you. For example:

- "Do we have enough plates and utensils for all the guests coming for the birthday party?"
- "We are doubling this recipe. How much of all the ingredients will we need?"
- "We are fertilizing the lawn. The fertilizer bag covers three square meters. How many will we need?"
- "This store is selling the game you want for 20% off of \$27.00. That store is selling the same game for \$19.99. Where should we shop?"

Holiday Math: Take advantage of math in the world

Summer is a great time to learn how math relates to the real world. Math is everywhere! Help your child prevent "summer learning loss" by taking advantage of the many great opportunities to practice math naturally!

Below are a few ideas to get you started:

- Cooking can involve weighing, measuring, ordering, estimating, adding, multiplying ...
- Restaurants and shopping can involve money, number identification, estimating, adding, subtracting, division ...





- Parties can involve matching numbers of people to plates, cutlery, area of tables, estimation, multiplication ...
- Trips can involve time, distance, budgeting, speed, evaluating various routes, license plate games (e.g. adding or multiplying the numbers on the plate) ...
- Home projects can involve estimation, measuring, multiplication ...
- Gardening can involve measuring, counting, area, division ...

Learning to Count

When children are learning to count, they like to touch, point to and move objects as they say the number aloud – so encourage them to!

- Have your child count toys, kitchen utensils, items of clothing as they come out of the dryer, collections (such as stickers, buttons or rocks) and any other items your child shows interest in counting.
- Mix it up! Have your child count a set of objects but start at different places in the set (for example, start counting in the middle of the set rather than at the beginning). This helps to develop the idea that the counting of objects can begin with any object in a set and the total will still be the same.
- Sing counting songs and use counting in meaningful ways in games, such as Hide-and-Seek. Counting games, rhymes and songs exist in every culture. Some counting songs and rhymes help children to count forward and backward as well.
- Have your child skip count (counting by twos, fives or tens) to count larger groups of items quickly. Use such objects as blocks, pasta pieces, toothpicks or buttons.
- Develop your child's awareness of the symbols used to represent numbers by making it a game. Look for number symbols in your home and neighbourhood: on the television remote, on the microwave, on the telephone keypad, in flyers and media, on signs and on team sweaters.





- Play a number version of I Spy. For example, “I spy something that has the number five on it,” or “I spy something in this room that there are three of.”
- Ask for your child’s help to count items in your home. “I wonder how many chairs we have around the table? In this room? In the house?” Count windows, light switches, lamps or beds. You might record “how many” by using a combination of numbers and pictures.

Talk out loud as you do everyday tasks. Talking out loud allows children to hear how you think and helps them develop important skills for “thinking things out” and solving problems.

- Do informal math together. On rainy days, family evenings and vacation time, play math games such as *Dino Math Tracks*, *Dominoes* or *Connect Four*. Show your child that math is fun!
- Parents worry about the amount of time that children spend on the computer and the quality of online content, but many educational web-based games, such as *Mathfrog* and *Calculation Nation*, encourage mathematical skills.
- Watch educational television programs like *The Prime Radicals* on TVO or *Cyberchase* on PBS. These programs also have websites with activities to do together, including game apps, math crafts and songs.
- Grocery stores are a great source of math lessons. For example, you can talk aloud about how to weigh fruit on a scale or how to estimate the total cost of groceries as you fill your cart.
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Involve your child in using numbers to solve problems and make everyday decisions. You might ask the following:

- "We need six tomatoes to make our sauce for dinner, and we have only two. How many more do we need to buy?"
- "You have two pillows in your room and your sister has two pillows in her room. How many pillowcases do I need to wash?"
- "Two guests are coming to eat dinner with us. How many plates will we need? How many utensils?"

You can make up games that involve adding and subtracting numbers by using number cubes and number cards. Have your child help you make four or more sets of number cards. Each card will have a number from one to ten on one side of it. Here are some games to try:





- Higher Number. Shuffle or mix up the cards and then leave them face down in a pile. Each player takes two cards and adds the numbers. The player with the higher sum gets the other player's cards. Players continue to take and add up two cards at a time until no cards are left. The player with more cards is the winner. You can play the same game with subtraction, but it would be called Lower Number. The player with the lower difference (answer) gives his or her cards to the other player. The person with the fewest cards at the end is the winner. You can play the same game with multiplication.
- Number Cube Twice. Each player rolls two number cubes and adds the numbers shown. The higher number wins. You can play the same game with subtraction and multiplication.

NUMBERS ARE EVERYWHERE!

Ask your child to pretend that the number 8 key on the calculator is broken. Ask how he or she can make the number 18 appear on the screen without the 8 key. (Sample answers include $20 - 2$ and $15 + 3$).

- Ask other questions of the same type by using different "broken" keys. Make this task easier or more challenging by varying the number your child must show on the calculator.

