

THE DAILY SPECIAL

MATH MATTERS

How to conquer your math phobia

Numeracy is a basic skill you can improve like any other, and games make it fun to do it

BY ARVIND GUPTA

Do your palms start to sweat when your child comes to you with math homework? Does your mind turn blank or fuzzy when you look at all those strange symbols? Did you select your career in part due to how little math would be required?

If you answered yes to any of these questions, there's a good chance that you are among the 20 per cent of people who are prone to math anxiety. Math anxiety prevents many people — regardless of intellectual ability — from developing and using the skills they need for numerical confidence in school and in life. But it doesn't have to. If you can shift your focus off your anxiety and onto the math itself, you can replace your anxiety with confidence.

The reality is that basic mathematical ability is not a special talent. It is a skill like any other that can be improved over time. And practice can be fun! If textbooks and worksheets give you a nervous stomach, set them aside for a while. Instead, try some of the many engaging and entertaining alternatives that are now available online, in daily newspapers or in your local toys and games store.

If you have trouble with a particular area of math, review the basics by using an online program such as Math.com, Coolmath.com, or Mathplayground.com. Sites like these offer lessons, games, puzzles and information that you and your children may enjoy. For more diverse explanations, try searching YouTube for your topic, for example "triangle proofs," "linear equations," "How to solve a Rubik's cube," or "Sudoku tips."

My favourite painless way to build problem-solving skills is through games and puzzles. The card game Set is a great way for all ages to strengthen visual perception and the ability to find patterns. Students in Grade 1 can play and beat adults, even mathematicians.

Any activity that exercises logic will improve your ability to do math. Sudoku, played by tens of millions, is simply a form of a logic puzzle where you have to fit the numbers one through



JASON SCOTT/CNS

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and Kenken incorporates all four basic arithmetic operations.

Electronic games such as Minesweeper (or Lemmings, a game I used to play) might not look like math at first glance, but they sharpen your cognitive abilities while you play. Regular and repeated problem-solving strengthens the neural pathways that flow between the areas of your brain

level. For all manner of interesting problems, pick up a copy of one of Martin Gardner's collections of math puzzles, for example *The Colossal Book of Mathematics*, or *The Colossal Book of Short Puzzles and Problems*. Phillip Heafford's *Great Book of Math Puzzles* is a good title for kids aged nine to 12.

To increase your problem-solving confidence, it's essential to focus on

your thinking, so that even if the final answer is incorrect, you can feel ownership of the process and proud that you came up with a method that got part-way to the solution.

By the time you reach the next problem, you might have all the mental muscle you need to get it right, and even enjoy the attempt.

ty-based math researchers with companies and other organizations to solve real-world challenges. For more information on MITACS, visit www.mitacs.ca.

Next week: Math for toddlers. We know we are supposed to talk, sing, and read with our children to support their