Everyone can be successful using math!

Be Positive About Math

Every child can learn math. Regardless of your own abilities and interest in math, **you can help your child to succeed** in math. The important thing is to welcome math into your child's everyday life.

In the world your child is entering, an understanding of math will be **essential for success**. Math has never been more important than in today's competitive, technological world.

I liked math - that was my favourite subject - and I was very interested in astronomy and in physical science.

Sally Ride - the first female American astronaut to enter space

What Learning Math can Give Your Child

- Math is a way of thinking; it has often been called a language. Just like learning a new language, learning math actually develops thinking skills and parts of your child's brain.

- Math will enable your child to recognize patterns and relationships, use this information to make better decisions, and solve problems more creatively.

- Mastering math will build your child's self-confidence and ability to think flexibly.

- Solid math skills will open the door to a variety of career opportunities in the future.

New Brunswick / Nouveau Brunswick

www.gnb.ca/education

What Your Child is Learning as a Math Student

Your child is learning more than simply memorizing math facts and rules. Your child is learning to:

- explore possibilities and to take risks in order to succeed.

- make sense of math, and is developing an understanding of how it works.

- make connections between everyday experiences and the skills and ideas learned in math class.

- share and explain his or her thinking by talking, writing, and drawing.

- use technology to explore and learn new ideas.

- solve problems.

- think logically and critically.

Ask prompting questions when your child needs help.

- What do you notice as you work on solving this problem? Do you see any patterns?
- Does that make sense to you?
- How do you know?
- If you don't know, how can you find out?
- Is there another way?

Create a positive attitude to math.

- Show your child that you think math is important.
- **Be confident** that everyone can learn math.
- Encourage your child to keep trying, even when an answer is difficult or slow to find.
- Treat errors and misconceptions as opportunities to learn.
- Celebrate successes.

Make math part of everyday life.

- Point out and discuss everyday objects and activities that use math.
- Provide games and activities that use math, such as logic puzzles (e.g., Sudoku), chess, and board games.
- Include your child in your everyday math, such as measuring, grocery shopping, creating schedules, and organizing collections.
- Encourage "money math" by asking your child to count and roll coins. Include your child in estimating the total price when making a purchase, and then predicting and checking the change.

Show an interest in your child's math studies.

- Provide a space and materials to help your child do math at home.
- Ask your child to share what she or he is learning in math class.
- Ask your child to explain how to solve homework questions so you can ensure that he or she understands the skill being practiced.
- Be an interested listener, accepting different ways to find solutions.
- Keep in contact with your child's teacher.

You can Help your Child Succeed in Math

The **Big Ideas** of **Grade 4 Math**

- **Numbers to 10 000**: represent, describe, compare, and order numbers to 10 000

  7500   seven thousand five hundred   seventy-five hundred   7500 is more than 5700

- **Addition and subtraction**: working with decimals (tenths and hundredths)

  $8550 + \square = 9000$ $\$8.00 - \$3.96$

- **Mental math and estimation**: strategies including doubling and halving, counting back, compatible numbers, etc.

  To solve 6×7, think $3 \times 7 = 21$, so double 21 is 42
  To solve $1.25 + 2.75$ think $0.25 + 0.75 = 1$, add this to $1 + 2$ to get a sum of 4

- **Multiplication and division**: three-digit numbers by a one-digit number

  $23 \times 4 =$
  Can be solved by:

- **Fractions**: (parts of a whole and parts of a set) name, record, model, and compare and order

  $\dfrac{3}{4}$ ⟶ three fourths ⟶

  $\dfrac{2}{5}$ is less than $\dfrac{2}{3}$

  How many digits would be in the quotient (answer) for $87 \div 6$?

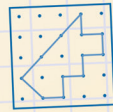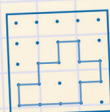- **Decimals**: (tenths and hundredths): describe, represent, and relate to fractions

  0.4 (four tenths) = 0.40 (forty hundredths) $0.74 = \dfrac{74}{100}$

- **Solving for unknown numbers**: solve one-step equations that include a symbol to represent an unknown number
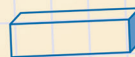
  $7 \times \Delta = 56$ $48 = \Delta \times 6$

- **Time and dates**: understand ways to read and write time (12- and 24-hour clocks) and dates

  6:30 P.M. ⟶ 18:30   2010/09/23 ⟶ September 23, 2010

- **Two-dimensional shapes**: find area (cm^2, m^2) of regular and irregular shapes; identify symmetry and congruency
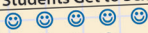
- **Three-dimensional shapes**: describe and construct triangular and rectangular prisms

- **Charts and tables**: identify, describe, and represent patterns

- **Pictographs and bar graphs**: construct and interpret

How Students Get to School

Walk or Bike	☺ ☺ ☺ ☺ ☺
Get a Drive	☺ ☺ ☺ ☺
Bus	☺ ☺ ☺ ☺ ☺ ☺ ☺ ☺

☺ = 5 students

Books that Make Math Fun

All of these books are available at New Brunswick Public Libraries.

- **The King's Chessboard** by *David Birch*
- **The Doorbell Rang** by *Pat Hutchins*
- **Measuring Penny** by *Loreen Leedy*
- **If the World Were a Village** by *David J. Smith*
- **Sir Cumference and the Sword and the Cone** by *Cindy Neuschwander*
- **Tiger Math: Learning to Graph from a Baby Tiger** by *Ann Whitehead Nagda* and *Cindy Bickel*

Internet Resources for Grade 4 Math Students:

The Internet is a source of many resources to help you and your child understand and practice math at the Grade 4 level and beyond. These sites were active at the time of publication, but you should preview them first to ensure they are appropriate for your child's needs and interests.

- **Interactive Dictionary** – A great resource for you and your child: www.teachers.ash.org.au/jeather/maths/dictionary.html

- **National Council of Teachers of Mathematics** - Illumination interactive activities: http://illuminations.nctm.org/Activity Search.aspx

- **National Council of Teachers of Mathematics** - "Figure This" puzzles and problems: www.figurethis.org

- **National Library of Virtual Manipulatives** - Interactive activities for all grade levels: http://nlvm.usu.edu/en/nav/vlibrary.html

- **Math Frog** - Resources and games in English and French at the Grades 4-6 levels: http://cemc2.math.uwaterloo.ca/mathfrog

- **NRICH Math** - Activities, games, and problems for students ages 5 to 19 years: http://nrich.maths.org/forstudents

- **Cool Math 4 Kids** - Puzzles, games and much more: www.coolmath4kids.com

Contact Us

The Department of Education and Early Childhood Development is committed to your child's success in math. If you have any questions about your child's progress or about how you can be an active part of his or her learning, contact your child's teacher or the Department of Education and Early Childhood Development at 506-453-3678.