

## Why is my child talking so much during math?

In the new mathematics curriculum, there is a strong emphasis on students communicating mathematically. Students will be involved in reading and writing about, listening to, representing, viewing and discussing mathematical ideas. These involvements allow students to connect their own ideas and language to the symbols and language of mathematics. Students will be talking during math class, which may be different from the math classes that you remember!

To communicate mathematically means to

- use words or mathematical symbols to explain real life.
- to talk about how you arrived at an answer.
- to listen to others' ways of thinking and perhaps alter your own thinking.
- to use pictures to explain something.
- to write about math, not just give an answer.

You might remember from math class when you were a child that you were to "show your work". Today, students are expected to "show their thinking", which is very different! Showing steps and explaining one's thinking both have a place in a mathematics class. Showing one's steps is a well-established practice, but explaining one's thinking is an important part of doing mathematics that should be included when learning any math concept. Explaining one's thinking has the following benefits:

- A student uses a strategy that makes sense to him.
- A student learns from hearing and/or watching other student strategies.
- There are often many ways to approach a math problem, so the process captures the nature of real mathematics.
- A student is in the role of mathematician rather than just an observer.
- This practice accommodates different learning styles and different backgrounds.
- A student is not imitating the teacher, but *inventing*. This higher-level thinking process involves truly "doing mathematics".

\*Taken from Mathematics Teaching in the Middle School, February 2007, p. 339.

When students are showing their thinking, they are communicating mathematically!

Communicating in math takes lots of practice; students improve over time!

### **How might I support my child with communicating mathematically?**

- Encourage your child to explain their thinking or to "think out loud" when they work on a math problem.
- Listen to your child explain math in their own words and then paraphrase what they have said using mathematical words that they may be learning.
- Ask your child's teacher for a list of math words that might be challenging for students in your child's grade.
- Use a dictionary or glossary when helping your child with homework when you don't know the vocabulary your child is using.

Alberta Education Implementation Schedule	2008-2009	2009-2010	2010-2011
Provincial	Grades K, 1, 4, 7	Grades 2, 5, 8	Grades 3, 6, 9, 10
Optional	Grades 2, 5, 8	Grades 3, 6, 9	

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