

## Why is my child doing problem solving in math?

The new curriculum for mathematics in Kindergarten to Grade 9 states that "Problem solving, reasoning and connections are vital to increasing mathematical fluency and must be integrated throughout the program." As a result, your child will be involved in problem solving in every mathematics class!

When students encounter new situations and respond to questions of the type *How would you ...?* or *How could you ...?*, the problem solving approach is being used. Students develop their own problem solving strategies by listening to, discussing and trying different strategies.

A problem solver is someone who questions, investigates and explores solutions to problems. They demonstrate the ability to stick with a problem for as long as it takes to find a workable

solution. They consider many possibilities and use different strategies to arrive at an answer. They are willing to try more than one way for solving a problem. They apply math to every day situations and use it successfully.

A student who uses reasoning is able to justify and explain what s/he has tried when solving a problem. They think logically and are able to explain similarities and differences about things and make choices based on those differences. They think about relationships between things and talk about them.

Some of the work your child brings home may not look like the practice questions we are used to seeing in math. The math texts have an increased emphasis on activities that get students to problem solve, communicate and reason.

### **How might I support my child with problem solving?**

- Talk to your child about the math he is learning and remind him that if it was easy, it really wouldn't be a problem.
- Play games and puzzles with your child that deal with such things as logic, reason, estimation, direction, classification, and time.
- Involve your child in daily activities that require the use of mathematics, such as making purchases, measuring ingredients, and so on. Encourage your child to determine the process and make the actual calculations.
- Discuss your child's classroom activities on a regular basis. Listen carefully to your child's explanation of what he or she is learning.

| 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 |                    |

This newsletter article is produced by the Alberta Regional Professional Development Consortia as a result of a grant from Alberta Education to support implementation of mathematics.