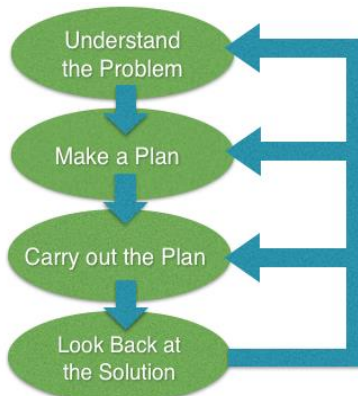


Problem solving is central to learning mathematics. By learning to solve problems and by learning *through* problem solving, students are given numerous opportunities to connect mathematical ideas and to develop conceptual understanding. It is considered an essential process through which students are able to achieve the expectations in mathematics. (*Ontario Ministry of Education, 2005*)

Support for Problem Solving

Having a problem-solving strategy is useful in all areas of life, and that strategy can be used in a variety of subject areas, but is essential to Math learning. If your child is struggling with a problem, remind your child that problem solving takes time. It also takes perseverance.



Polya's Problem Solving Model

Encourage your child to use problem-solving strategies he/she is learning in school.

For example:

- consider starting with the simplest part of the problem
- make a model or draw a diagram
- make a table, chart, or list
- guess, check, and revise
- look for a pattern
- use a formula
- work backward

Use question prompts to help your child discover a solution. For example:

- *What information are you given? What are you asked to find?*
- *What is happening in the problem? Can you draw a picture of the situation to help you solve it? What other ways could you represent the problem? (e.g., make a model, act it out, write a number sentence or equation, organize the data in a table, etc.)*
- *What do you know by looking at the diagram?*
- *What strategies have you used before that you might try here?*
- *Is there another way you might have solved this problem?*



Encourage your child to always check the accuracy of his/her work. By checking, your child will practice skills, build understanding, and become more self-reliant. Ask your child to explain why the solution is correct or incorrect.

Talk aloud as you solve everyday problems of all kinds. Discuss alternative approaches and solutions with your child. Modelling how to solve a problem with your child will give your child more ideas and strategies.

As a parent, there is a lot you can do to help your child learn and love math. Learn about the math that your child is studying in school. Look for math in everyday activities. Offer encouragement and have a positive attitude toward math. Parents can be a great role model, math mentor and coach.