

Best Practices

Mathematics as a Complex Problem-solving Activity

- * Promoting students thinking through Problem-solving.
- * Problem-solving is not only a goal of learning mathematics but also a major means of doing so.
- * A problem solving curriculum need to stress on strategies and solutions on their own, and to evaluate their own results.
- * The primary focus in the class needs to be on the students' thinking process.

Principles of Problem Solving

- * Understand and Explore the problem
- * Find a strategy.

Use the strategy to solve the problem.

look back and reflect on the solution
students move forward and backward as they move through the problem-solving process.

The goal is for students to have a range of strategies they use to solve problems and understand that there may be more than one solution.

Arriving at an answer is not the end of the process. Reflecting on the strategies used to solve the problem provides additional learning experiences.

Studying the approach used for one problem helps students become more comfortable with using that strategy in a variety of other.

Students need opportunities to work both independently and collaboratively.

They need to work in small groups that they can share ideas and learn with and from others.

Students need to plan and promote their course, and can be actively engaged in mathematical thinking.

In this process of problem solving strategies they use in solving mathematical problems. then by connecting their everyday language with the specialised vocabulary of mathematics. In this effective process of understanding they can use their students thinking as a resource for further learning.

Conclusion *

We need to recognize that problem solving skills develops over time and are significantly improved by effective teaching process and practices. The teacher's role begins with selecting rich problem-solving task that focus on the mathematics the teacher wants their students to explore.

References **

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