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What is Problem Solving

Unlocking the Power of Problem Solving in STEM!

DEFINITION

> Problem solving is the process of finding solutions to challenges or questions. It involves thinking critically and creatively to overcome obstacles.

KEY CONCEPTS

Identifying the Problem

Recognize what the issue is before trying to solve it.

Generating Solutions

Think of different ways to address the problem.

Evaluating Options

Consider the pros and cons of each possible solution.

Implementing a Solution

Put your chosen solution into action to see if it works.

Reflecting on Results

Look back at the outcome to learn from the experience.

EXAMPLES

→ Fixing a leaky faucet by identifying the source of the leak.

→ Creating a new game strategy after losing a match.

→ Finding the fastest route to school using a map.

MEMORY TIPS

★ Use the acronym 'IDEAL' - Identify, Define, Explore, Act, Look back.

★ Think of problem solving as a puzzle: find the right pieces to fit.

★ Visualize the process as a journey: map out your steps to the solution.

COMMON MISTAKES

✗ Rushing to a solution without understanding the problem fully.

✗ Ignoring feedback from others about the chosen solution.

✗ Failing to check if the solution worked after implementation.

QUICK RECAP

Problem solving is essential in STEM, helping us tackle challenges effectively. Remember to identify the problem, generate and evaluate solutions, implement them, and reflect on the results for continuous improvement.