

## TODAY'S CURRICULUM: WHY MATHEMATICAL REASONING IS ESSENTIAL

*by:*

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Mathematical reasoning is a crucial aspect of the K-to-12 curriculum in the Philippines, which is focused on enhancing students' critical thinking and problem-solving abilities through this skill. The K-to-12 curriculum intends to provide a comprehensive and integrated approach to mathematics education, preparing students for the challenges of the 21st century. The importance of mathematical reasoning in the K-to-12 curriculum is undeniable. It is a fundamental skill that helps students comprehend, examine, and resolve problems. Mathematical reasoning is a critical skill in various fields, such as science, engineering, finance, and technology. By developing mathematical reasoning skills, students can understand the relevance of mathematics in real-life situations.

Additionally, mathematical reasoning is essential for decision-making skills. By analyzing data, evaluating choices, and making informed judgments, students who can reason mathematically can develop decision-making skills. These skills are essential for personal financial planning and analyzing information presented in the media.

A holistic approach is required to integrate mathematical reasoning into the K-to-12 curriculum. Teachers must establish a learning environment that promotes critical thinking, problem-solving, and collaboration. They must provide opportunities for students to apply mathematical reasoning skills to real-world problems. This approach can be accomplished by incorporating technology into the curriculum and providing opportunities for students to explore mathematical concepts through hands-on activities and projects.

Problem-based learning is one way to improve mathematical reasoning skills. This method involves presenting students with open-ended problems that require critical thinking, problem-solving, and communication skills. By providing opportunities to analyze data, evaluate choices, and make informed decisions, problem-based learning can help students improve their mathematical reasoning skills.

The importance of mathematical reasoning in the K-12 curriculum for the academic year 2022-2023 is undeniable. Developing mathematical reasoning skills is essential for success in many fields and helps students enhance their critical thinking, problem-solving, and decision-making abilities required for success in the 21st century. Educators can help students acquire the necessary skills to achieve their future goals by incorporating mathematical reasoning into the curriculum.

#### *References:*

National Council of Teachers of Mathematics. (2000). Principles and Standards for School Mathematics. <https://www.nctm.org/Standards-and-Positions/Principles-and-Standards/>