

**THE IMPORTANCE OF MATHEMATICS IN THE FORMATION OF A WORLDVIEW
AND ITS PLACE IN THE STUDY OF THE SURROUNDING BEING**

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Methodology of teaching mathematics,
theory of elementary mathematics course
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Annotation: This article deals with important information about the role of mathematics in the formation of a worldview and its place in the study of the surrounding being. Moreover, statistical data about the usage of math in our daily life and its necessity as a subject to be studied were given.

Key words: *fundamental, deeper complexities, mathematical models, complex social issues, problem-solving ability, critical thinking, evolving world, innovation society.*

As we know that mathematics is often considered one of the most challenging subjects in school. But despite its reputation, it plays a crucial role in the modern world. From the technology we use every day to the complex systems that govern our society, mathematics is essential to understanding and solving the problems we face. Mathematics is a fundamental part of our everyday lives, and it is the language of science, technology, and engineering. From calculating the tip on a restaurant bill to designing the latest smartphone, mathematics is integral to many aspects of modern society. However, its influence extends beyond just practical applications. Mathematics can also help us understand the deeper complexities of the world, such as patterns in nature, social dynamics, and economic systems. One area where math has made significant contributions is in the study of climate change. Through mathematical modelling, scientists can better understand the dynamics of the earth's climate system and predict the potential impacts of global warming. Similarly, math plays a vital role in understanding the spread of infectious diseases and developing effective strategies for disease control[1].

Mathematics is also a powerful tool for exploring complex social issues, such as income inequality and political polarization. By using mathematical models, researchers can identify underlying patterns and trends in data and develop more accurate predictions of future outcomes. This can lead to more informed policy decisions and a better understanding of social dynamics. Mathematics is a powerful tool for global understanding and communication that organizes our lives and prevents chaos. Mathematics helps us understand the world and provides an effective way of building mental discipline. Math encourages logical reasoning, critical thinking, creative thinking, abstract or spatial thinking, problem-solving ability, and even effective communication

skills. Mathematics is a study of measurements, numbers, and space, which is one of the first sciences that humans work to develop because of its great importance and benefit.

The origin of the word "mathematics" is in Greek, which means tendencies to learn, and there are many branches of mathematics in science, that are related to numbers, including geometric forms, algebra, and others[2]. Mathematics plays a vital role in all aspects of life, whether in everyday matters such as time tracking, driving, cooking, or jobs such as accounting, finance, banking, engineering, and software. These functions require a strong mathematical background, and scientific experiments by scientists need mathematical techniques. They are a language to describe scientists' work and achievements.

As for mathematical inventions, they are numerous throughout the ages. Some of them were tangible, such as counting and measuring devices. Some of them are not as tangible as methods of thinking and solving. The symbols that express numbers are also one of the most important mathematical inventions. Mathematics helps in analytical thinking. While solving maths problems, data are collected, disassembled, and then interconnected to solve them. Mathematics helps to develop the ability to think and also:

- It helps explain how things work.
- It helps to develop wisdom.
- It increases the speed of intuition.
- It helps to make the child smarter.
- Money can be collected in mathematics when used as a profession.
- It is important in a constantly evolving world.
- It provides the child with an opportunity to get to the world.

The body of knowledge and practice known as mathematics is derived from the contributions of thinkers throughout the ages and across the globe. It gives us a way to understand patterns, to quantify relationships, and to predict the future. Math helps us understand the world — and we use the world to understand math. The world is interconnected. Everyday math shows these connections and possibilities. The earlier young learners can put these skills to practice, the more likely we will remain an innovation society and economy. Algebra can explain how quickly water becomes contaminated and how many people in a third-world country drinking that water might become sickened on a yearly basis. A study of geometry can explain the science behind architecture throughout the world. Statistics and probability can estimate death tolls from earthquakes, conflicts and other calamities around the world. It can also predict profits, how ideas spread, and how previously endangered animals might repopulate. Math is a powerful tool for global understanding and communication. Using it, students can make sense of

the world and solve complex and real problems. Rethinking math in a global context offers students a twist on the typical content that makes the math itself more applicable and meaningful for students[3].

For students to function in a global context, math content needs to help them get to global competence, which is understanding different perspectives and world conditions, recognizing that issues are interconnected across the globe, as well as communicating and acting in appropriate ways. In math, this means reconsidering the typical content in atypical ways, and showing students how the world consists of situations, events and phenomena that can be sorted out using the right math tools. Any global contexts used in math should add to an understanding of the math, as well as the world. To do that, teachers should stay focused on teaching good, sound, rigorous and appropriate math content and use global examples that work. For instance, learners will find little relevance in solving a word problem in Europe using kilometers instead of miles when instruments already convert the numbers easily. It doesn't contribute to a complex understanding of the world.

Math is often studied as a pure science, but is typically applied to other disciplines, extending well beyond physics and engineering. For instance, studying exponential growth and decay (the rate at which things grow and die) within the context of population growth, the spread of disease, or water contamination, is meaningful[4]. It not only gives students a real-world context in which to use the math, but helps them understand global phenomena – they may hear about a disease spreading in India, but can't make the connection without understanding how fast something like cholera can spread in a dense population. In fact, adding a study of growth and decay to lower level algebra – it's most often found in algebra II – may give more students a chance to study it in the global context than if it's reserved for the upper level math that not all students take.

To sum up all given facts above, it should be highlighted that mathematics is one of the most important subjects of our life as we emphasize above. No matter to which field or profession you belong to, its use is everywhere. That is why it is necessary to have a good understand of the subject. Though the basics of mathematics start from school but its usage continues till we become adults and thus it can be said that maths has become an integral part. Imagining our lives without it is like a ship without a sail. Mathematical rapprochement is necessary for any process, so if anyone wants to reach the height of his life, he should not fail to believe in the role of mathematics in his life, starting with the ordinary citizen. Every day has a daily interest in mathematics. Mathematics is deeply related to the natural phenomenon, the way to solve many secrets of nature.

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