

## MATHEMATICS EDUCATION

by:

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Education in mathematics and education in the sciences share a lot of ideals and, for the most part, experience the same challenges and problems. On the other hand, as a result of the fact that these two subfields of research are unique from one another, there are two different books that cover the subject matter. In particular, it cannot be disputed that, in contrast to the subject of science, mathematics should be taught to each and every student from the very beginning of their time in school, even if they are not required to do so. This is a reality that cannot be called into question. Even if mathematics teaching is not always presented in a manner that is judged to be satisfactory, it is nonetheless available to all of the children who are enrolled in a school.

The universal agreement that mathematics instruction be a part of the curriculum taught in primary schools, does not imply that the teaching of mathematics is not a contentious matter in and of itself. The mathematical knowledge and skills possessed by a substantial number of kids by the time they have completed their basic education fall short of the benchmark, according to evaluations carried out at both the national and international levels.

Everyone agrees that mathematics is everywhere, especially in technology and exchange and communication processes, but it is rarely seen, making the case for fostering a mathematics culture beyond numeracy, measurements, and calculation less compelling.

The need for mathematical literacy greatly exceeds the needs typically associated with fundamental computing understanding, making it more crucial that mathematics be brought to the forefront in elementary and secondary education.

The public's perception of mathematicians has a significant impact on how they interpret mathematical work. Even today, many people mistakenly believe that mathematics is done in isolation, unrelated to the challenges of the real world and unaffected by advances in technology.

In addition, many people still view it as a completely deductive activity in which theorems are generated using only the most rigorous formal proofs. Finally, it is commonly held that mathematics is not for everyone and that female students, in particular, will face more challenges than male students while attempting to master the subject.

As a result of all these misconceptions, it is becoming more difficult to provide everyone with a solid foundation in mathematics. Students should be able to build a healthy and realistic perception of mathematics thanks to high-quality mathematics education. That can only be achieved if it is true to the spirit and the letter of mathematics. It should help students see how the math they're learning fits into a larger picture and appreciate the subject's deep roots in human history.

The acquisition of mathematical skills includes the acquisition of the means to access this cultural heritage. Therefore, it is important for students to learn that mathematics is not a body of information, but rather a living and growing science that both benefits from and contributes to the advancement of other scientific disciplines. As indicated in the introductory paragraph, this should help students view mathematics as a science that has a role to play in finding solutions to the world's most pressing problems.

Therefore, a view of mathematics as a dynamic science that engages with the actual world is receptive to connections with other fields and is not limited to the hard sciences alone is essential for maintaining a high standard of mathematics education. It's crucial that students be able to see how mathematics may be used to shape their perspectives and affect the world around them.

In addition, the methods of persons who create or utilize mathematics must be accurately portrayed in any high-quality mathematics curriculum. Contrary to common misconceptions, mathematical work is a diverse and complex human endeavor. Students should be encouraged to model, explore, conjecture, test, represent, and formulate problems that are amenable to mathematics; they should argue and prove their points; they should develop methods for doing so; they should work out and connect concepts within structured spaces; they should exchange and communicate; and so on. Math should be seen as both a personal and shared experience in life and the importance of talking to and learning from others should be emphasized in school. It needs to invigorate by posing difficulties and fostering shared beliefs. As a result, it should be reflective of a globalized approach to education that is in sync with informal scientific and social mathematical practices and able to make appropriate use of the technology tools used in those contexts.

Math education must be coherent with and complementary to science education if it is to make the necessary contributions to scientific, economic, social, citizenship, and individual fulfillment. This is a challenge that education systems must take on. To meet this challenge, we need to make major adjustments to the way mathematics is taught in schools.

While there are universal concepts that can be used as a starting point, it is important to remember that no two educational systems are identical and that the same approaches won't work in every situation. In order to make changes that stick over the long term, political activity must be consistent and ongoing. This requires establishing new patterns of cooperation across all stakeholders and trying new approaches that go against the grain.

*References:*

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