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UNDERSTANDING AND OVERCOMING MATH ANXIETY:
STRATEGIES FOR ACADEMIC SUCCESS !

UNLOCKING THE POWER OF NUMBERS:
WHY DO WE STUDY MATHEMATICS?

LEARNING HEAT EQUATION THROUGH GAMES

IS DATA SCIENTIST STILL THE SEXIEST JOB FOR 2024?





Unlocking the Power of Numbers: Why Do We Study Mathematics?

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With what calculations were the Pyramids constructed? Suspension bridges: how do they work? How is it feasible to land on the moon? There is a mathematically based answer to each of these problems. Using the power of mathematics, curious minds have been utilising seemingly unachievable achievements like setting foot on the moon or constructing the tallest tower are made possible by mathematics.

Today, mathematics is a broad field that works with data from surveys, scientific research, inference, reasoning and evidence that the huge amount of data can be applied to numerical simulations of social systems, natural events and human behaviour [1]. The definition of mathematics is literally "things which can be counted." You may now realize how important numbers are to our daily existence. Without mathematics, how would we be able to count on our family members, the number of students in a class, the amount of money we have in our pockets or the number of days in a week, month or year? You must be able to depend on addition, subtraction, multiplication, and division on a basic level [2].

In this article, we explore the reasons why we study mathematics and why it is an essential discipline that has many uses in our daily lives.



1.

BUILDING BLOCKS OF LOGICAL THINKING



Mathematics is a subject that develops the ability to reason logically and solve problems. The act of resolving problems with mathematics trains the mind to approach difficulties logically and deconstruct them into simple steps. This capacity for logical reasoning is useful not only in the field of mathematics but also in many other areas of daily life, such as critical analysis and decision-making [3].

PRACTICAL APPLICATIONS IN DAILY LIFE

Mathematics is not just used in particular fields or academics. Its principles flow through various aspects of everyday life. We perform mathematical operations without realizing it, from spending and budgeting calculations to measuring recipe ingredients.



2.



3.

GATEWAY TO CAREER OPPORTUNITIES

The influence of mathematics extends far beyond academic pursuits. Numerous career paths including accounting, medicine, engineering, forensic pathology, finance, teaching, IT, actuary, business analyst, software engineer, technology analyst, information engineer also rely heavily on mathematical principles. Proficiency in mathematics opens doors to diverse career opportunities from designing cutting-edge technologies to formulating economic policies that shape nations [4].



4.

ENABLING TECHNOLOGICAL ADVANCEMENTS

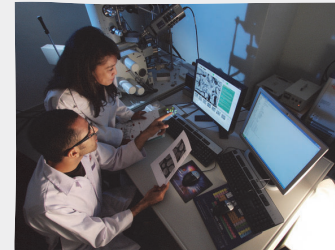
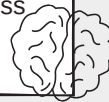
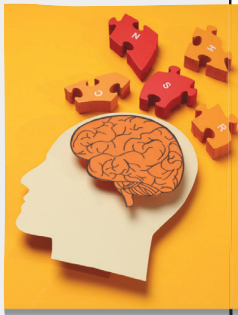
The foundation that mathematics laid is largely responsible for the rapid pace at which technology is developing. These developments are based on mathematical ideas, whether it is the cryptography protecting online transactions or the algorithms driving search engines. As we move closer to a more digitally advanced future, mathematics will always be a crucial instrument for new technological developments [5].



5.

COGNITIVE DEVELOPMENT AND MENTAL AGILITY

The study of mathematics has a major positive impact on cognitive development. The brain is challenged by the abstract nature of mathematical concepts, which improves mental agility, memory, and attention. It encourages a systematic and organised approach to problem-solving, which develops transferable abilities across a variety of subject areas [3]



6.

GLOBAL LANGUAGE OF SCIENCE

Mathematics serves as the universal language of science. It provides a standardized framework for scientists and researchers to communicate ideas, formulate theories, and analyze experimental results. The ability to understand and speak this global language facilitates collaboration and the sharing of knowledge across cultural and linguistic boundaries [4].



Embracing the study of mathematics is more than just an academic pursuit. It is an investment in the growth of the mind, a pathway to a variety of professional options and a doorway to comprehending the basic ideas that support all that exists. We are setting out on a journey that will enable us to invent, create and add to the body of knowledge that will influence the direction of human history as we continue to unlock the mysteries of mathematics. Therefore, why do we study mathematics? For the joy of learning, a desire for understanding and discovering that the keys to breaking the doors to our knowledge may be found in the language of numbers and equations, leading us towards a future in which the applications of mathematics will have almost endless possibilities.

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