

## TEACHING MATHEMATICS IN THE EDUCATIONAL SYSTEM FROM MODERN INFORMATION TECHNOLOGIES USAGE

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**Mukhtorova Shohida Negmat qizi**

Tashkent Institute of Chemistry and Technology Teacher of Shahrisabz  
branch, Uzbekistan [muxtorovashohida1998@gmail.com](mailto:muxtorovashohida1998@gmail.com)

### Abstract

*In this article, information technology in mathematics scientific opinions about its importance are presented. Scientific opinions are based on facts. About the lesson of modern mathematics professional about the principles of updating teachers' opinions, building it recommendations are given on creating conditions for communication. Modern mathematics The goal of the lesson is a new, general one capable of solving tasks independently a versatile person with a high level of cultural and personal development formation. Innovative in teaching mathematics use of methods, use of modern technologies in the course of the lesson is talked about.*

## ПРЕПОДАВАНИЕ МАТЕМАТИКИ В СИСТЕМЕ ОБРАЗОВАНИЯ ИЗ СОВРЕМЕННЫХ ИНФОРМАЦИОННЫХ ТЕХНОЛОГИЙ ИСПОЛЬЗОВАНИЕ

### Абстрактный

*В этой статье информационные технологии в математике. представлены научные мнения о его значении. Научные мнения основаны на фактах. Об уроке современной математики профессионально о принципах обновления мнения учителя, его построения даются рекомендации по созданию условий для общения. Современная математика Цель урока – новая, общая, способная самостоятельно решать задачи. разносторонняя личность с высоким уровнем культурного и личностного развития формирование. Новаторство в преподавании математики использование методов, использование современных технологий в ходе урока речь идет о.*

## TA'LIM TIZIMIDA MATEMATIKA FANINI O'QITISHDA ZAMONAVIY AXBOROT TEXNOLOGIYALARIDAN FOYDALANISH

### Annotatsiya

*Ushbu maqolada matematika fanida axborot texnologiyalarining ahamiyat haqida ilmiy fikrlar bayon etiladi. Ilmiy fikrlar faktlarga asoslanib xulosalanadi. Zamonaviy matematika darsi haqida o'qituvchilarning fikrlarini yangilash, uni qurish tamoyillari haqida professional muloqot uchun sharoit yaratish bo'yicha tavsiyalar beriladi. Zamonaviy matematika darsining maqsadi - yangi, vazifalarni mustaqil hal etishga qodir bo'lgan umumiy madaniy va shaxsiy rivojlanishning yuqori darajasiga ega bo'lgan ko'p qirrali shaxsni shakllantirishdir. Matematikaning fanini o'qitishda innovatsion metodlardan foydalanish, dars jarayonida zamonaviy texnologiyalardan foydalanish haqida so'z yuritiladi.*

### **Key words**

*mathematics, science, technical means, logic, type, gender, computer, information, methodical recommendations, intellectual development, group work, brainstorming, modern development trends, professional skills, oral and instructional methods, didactics*

### **Ключевые слова**

*математика, наука, технические средства, логика, вид, пол, компьютер, информация, методические рекомендации, интеллектуальное развитие, групповая работа, мозговой штурм, современные тенденции развития, профессиональные навыки, устная и методы обучения, дидактика*

### **Kalit so'zlar**

*matematika, fan, texnik vositalar mantiq, tur, jins, kompyuter, axborot.metodik tavsiyalar, intellektual rivojlanish, guruh bo'lib ishlash, aqliy hujum, zamonaviy rivojlanish tendentsiyalari, kasbiy mahorat, og'zaki va ko'satmali metodlar, didaktika*

### **ENTRY**

This is how much attention is paid to education and science these days of spiritual education in the formation of a mature person in all respects we must not forget that its importance is incomparable. In teaching every subject, that's it including several goals in the process of teaching mathematics sets: a) educational; b) developing; d) educational. Respect for science, enlightened to be, to be spiritually educated is reflected in the educational purpose of education.

I believe that the main tasks of a modern mathematics lesson are:

- personal development - personal, moral, emotional, aesthetic and physical orientation and development of qualities;
- intellectual development - development of intellectual qualities of a person, knowledge mastering the methodology, teaching strategies and methods, self to educate;
- communicative development - the ability to communicate freely and

formation of readiness, modern verbal and non-verbal communication mastering the tools.

Pedagogical and scientific about the novelty of the modern mathematics lesson

based on my work, with the following thoughts and recommendations. I want to share. First of all, to know the environment of the child to increase his motivation, distract him from school lessons from life not getting knowledge, on the contrary, the necessary preparation for life, knowing it the ability to acquire, find useful information and apply it in real life must be shown. The level of analytical and logical thinking of a student who has mastered mathematics well will be high. It is not only in solving examples and problems, but also in various situations in life to quickly make decisions, discuss and negotiate, work it forms the skills of step-by-step execution. Also Mathematician's thinking takes him to the level of predicting future actions and events happening around him. The science of mathematics is aimed at developing human intelligence and attention Algorithmic way in training determination and will to achieve the goal It plays an important role in ensuring discipline and broadening one's thinking. Mathematics is the basis of knowledge of the universe, surrounding events and events to reveal the specific laws of production, science and technology and technology important in development. It is known that mathematics is an abstract science. Its content is from beginning to end is a product of human imagination and logical thinking. Science is like that abstract structure, self-enrichment, that is, a new mathematician to be able to generate concepts and their properties from certain properties the opportunity has served to develop human mental abilities since ancient times came Even competitions for solving mathematical problems have challenged the human mind in the past was a means of prevention. From this, mathematicsthe main task is to make students think, to think correctly and logically and it becomes clear that it consists of teaching to observe. None Science and mathematics make students think and think can't. Solving various problems, problems and puzzles in mathematics lessons through it, students learn to think correctly and think logically. At school the main task of teaching mathematics is in everyday life appropriate for the age of the student and used in work, continuing education in the future consciously strengthen the necessary mathematical knowledge and skills is to ensure possession. The science of mathematics teaching methodology is direct philosophy, psychology, pedagogy, didactics, mathematics, drawing, based on logic, history and other sciences. Theory of mathematics and it

mathematics science and its it is appropriate to take into account the specific characteristics of teaching. In modern education, for the learner, it is also outside the classroom an opportunity to work on oneself, expand and deepen knowledge is created. Taking into account the incomparable role of mathematics in our lives, this is a science It is included in school textbooks from the first grade, along with all specific subjects in our country to improve mathematics education based on the requirements of the times, to teach it the most great attention is paid to the introduction of the latest pedagogical and innovative methods, multimedia tools and information and communication technologies. Especially connecting academic subjects with life rather than providing academic knowledge, solving practical examples and problems, attracting students to independent research and study the importance of reaching is immeasurable. During the lesson, the student forced himself to the desk not to feel like it was put, on the contrary, with great enthusiasm and strong desire in training participation should be achieved. New technical tools for teaching mathematics, including computers and interdisciplinary in today's era of rapid penetration of other information technologies it is urgent to use the achievements of computer science in order to ensure integrity is one of the issues. Organization of pedagogical, computer and information technologies educational process, preparation, provision of scientific and methodical materials, implementation of the educational process, it is expressed in the integrated system of evaluating the quality of educational results. Another direction of the convenience of computers in teaching mathematics is some training is to model situations. The purpose of using modeling programs, it was difficult to imagine when other methods of teaching were used is to ensure that the materials are understandable. With the help of modeling, students are given information in computer graphics mode can be presented in the form of multimedia. Therefore, they are deep in mathematics tends to show a significant degree of independence in the learning and educational process

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mode can be presented in the form of multimedia. Therefore, they are deep in mathematics tends to show a significant degree of independence in the learning and educational process will be. Education is an integral part of the future of every society and a vital necessity determined by the level of development of the system. Republic of Uzbekistan As President Shavkat Miromonovich Mirziyoyev said, "What if I ask you? will it bother you?" If you ask, I will answer that it is the education and upbringing of our children His words are another example of this. Today it is independent reforming the continuous education system of our country, which is on the path of development and improvement, promotion to a new level of quality, advanced pedagogical and new

introduction of innovative modern information technologies and education through them increasing efficiency is one of today's urgent issues. Today's task of the educational system, new innovative information of teachers effectively using technology in the lesson to provide clear information to students and delivery in a comprehensible manner. Therefore, during the lesson, the teacher teaches the students mathematics New, innovative, modern information in the course of studying clearly and clearly it is appropriate to organize and teach using technologies. New technical tools for teaching mathematics in the educational system, that's it including the modern era of computer and other information technologies from the achievements of the science of informatics in order to ensure interdisciplinarity organization of use is very important to increase the efficiency of students' learning will help. Implementation of computer technology in school educational institutions, teaching process opens a wide path to optimization. In the next decade, computers and The use of new innovative modern information technologies is a few main ones was carried out in directions. These include computer-assisted knowledge assessment of various types development and development of educational programs, mathematical games related to knowledge development, etc., of mathematics for new students modern innovative programs that help them to work independently was developed. Through these programs and video lessons, students were taught during the lesson It helps a lot to strengthen the topics.

Mathematics is as real as other sciences (physics, chemistry, history, etc.). studies existence. The structure of real existence and the rules of law in it does research. It makes different models about the real existence. If, natural sciences

while they base their research on experiments, mathematics is not based on experiments. Problems related to connecting the theory with practice in mathematics

one can refer to experience in understanding and imagining. Nowadays, new innovative modern information is used in the educational process to the interest in using technology and applying it in the educational process attention is increasing day by day, one of the reasons for this is until then, in traditional education, students were taught only to acquire ready-made knowledge if so, they are occupying them in new innovative modern information technologies to search for knowledge by themselves, learn and analyze independently, even conclusions also teaches them to create themselves. The teacher develops personality in this process, creates conditions for formation, education and upbringing, and in addition performs the function of management and direction. In new innovative modern information technologies, students are educated, mature and ensures deep learning of sciences.

## REFERENCES

1. Axborot texnologiyalari (M.Aripov, B.Begalov, U.Begimqulov, M. Mamarajabov) Toshkent-2009
2. Alixonov S. "Matematika o'qitish metodikasi" Qayta ishlangan II nashri. T., «O'qituvchi» 1997 va boshqalar elementar matematikadan masalalar.
3. Ta'limda zamonaviy axborot texnologiyalari-yangi imkoniyatlar (Gulnoz Hamrayeva) 2015
4. Alixonov S. «Matematika o'qitish metodikasi». T., «O'qituvchi» 1992
- Jumayev M.E. Matematika o'qitish metodikasidan praktikum. OTM uchun darslik. Toshkent., «O'qituvchi» 2004
5. Jumayev M.E. va boshqalar. Matematika. OTMning Pedagogika psixologiya fakulteti talabalari uchun darslik. Toshkent. «Moliya Iqtisodw 2008.
6. <https://cyberleninka.ru/article/n/matematika-fanini-o-qitishda-zamonaviyaxborot-texnologiyalaridan-foydalanish>.