

**THE PRACTICAL IMPORTANCE OF STEAM EDUCATION IN PRIMARY
EDUCATION LESSONS**

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Annotation: The article shows information aimed at teaching students to apply the theoretical knowledge learned in their real life and activities based on the STEAM approach, using the example of subjects and topics.

Keywords: STEAM approach, traditional approach, global climate, non-standard problem solving, formation of creativity skills.

Anotatsiya: Maqolada STEAM yondashuv asosida o'quvchilar o'rgangan nazariy bilimlarni haqiqiy hayotlarida, faoliyatlarida bajarib ko'rishlarini fanlar va mavzular misolida o'rgatishga qaratilgan ma'lumotlar ko'rsatib o'tilgan.

Kalit so'zlar: STEAM yondashuv, an'anaviy yondashuv, global iqlim, nostandart muammolarni yechish, ijodkorlik qobiliyatlarini shakllantirish.

Аннотация: В статье на примере предметов и тем показана информация, направленная на обучение студентов применять полученные теоретические знания в реальной жизни и деятельности на основе подхода STEAM.

Ключевые слова: STEAM-подход, традиционный подход, глобальный климат, нестандартное решение задач, формирование креативных навыков.

STEAM educational technology is a new methodology for teaching schoolchildren, a methodology that is different from traditional teaching methods. It is designed to simultaneously teach students four subjects - Science, Technology, Engineering, Art, and Mathematics. STEAM is an integrated teaching system not by subject, but by subject. The educational process is understood as the application of scientific and technical knowledge in real life through practical exercises based on STEAM.

STEAM technology, unlike education, provides for the transfer of knowledge not separately, but in a balanced manner. The student develops non-standard thinking, finding multiple solutions to problems, and creativity skills, which will be very useful in his future career. The main goal is to create an opportunity for students to apply the knowledge gained in class in practice and apply it to life. In some schools, along with robotics and machine shops, there is now a STEAM room, which consists of a modern interactive platform, tools, sewing machines, weaving devices, Arduino platforms and 5 different types of cutting and grinding equipment. Interestingly, this equipment can be rebuilt by students, allowing them to perform other functions and looks. In a STEAM learning environment, children acquire knowledge and immediately learn to use it. Therefore, when they grow up and face life problems, whether it is environmental pollution or global climate change, they understand that such complex issues can only be solved by relying on knowledge from different fields and working together.

The STEAM approach is changing the way we look at education and training. By focusing on practical skills, students develop their will, creativity, flexibility and learn to cooperate with others. These skills and knowledge constitute the main educational task.

The use of STEAM programs in natural science lessons is a very basic system for independent and creative thinking of children. In this, we can see the integration of such subjects as

mathematics, nature, computer literacy, technology. For example, in the process of finding a solution to a given problem, children can make a model of the objects presented in that problem, or draw them based on computer graphics. In this, their thinking skills develop.

Everything that is learned based on STEAM educational technology is reflected in our modern life. Unlike conventional education, it provides knowledge not separately, but in a balanced way. The child develops in himself the ability to solve non-standard problems, create opportunities and be creative, and this will be very useful in his life in the future.

The main idea of the STEAM approach is that practice is as important as theoretical knowledge. That is, during learning, we need to work not only with our brains, but also with our hands. Learning only in the classroom is not keeping up with the rapidly changing world. The main difference of the STEAM approach is that children use both their brains and their hands to successfully learn various subjects. They learn the knowledge they receive on their own.

This new approach is a logical result of combining theory and practice. STEAM was developed in America. Some schools took into account the careers of graduates and decided to combine such subjects as science, technology, engineering and mathematics, and this is how the STEM system was formed. Later, Art was added here, and now STEAM has finally formed.

Teachers believe that these subjects, or rather, knowledge from these subjects, will help students become highly qualified specialists in the future. After all, children strive to get good knowledge and immediately apply it in practice.

The changes in recent decades are pleasant, but at the same time they make us nervous. With the invention of these new things, there are many new problems that people have not faced before. New types of work and even entire professional fields appear every day, so modern teachers need to think about whether the knowledge and skills they teach meet the requirements of the time. Knowledge helps you find your idea, but real work turns that idea into reality.

If we say that the main goal of traditional education is to teach knowledge and use this knowledge to think and create, the STEAM approach teaches us to combine the acquired knowledge with real-world skills. Since students in a STEAM educational environment immediately apply the knowledge they have acquired, when they grow up and become adults and face various problems in real life, they understand that they need to rely only on their knowledge acquired in different scientific fields and work together. Relying on knowledge within one subject is not enough. Accordingly, the STEAM approach is also a way of thinking.

As a result of the great attention paid to the development of practical skills in STEAM education, their ability to work together, creativity is developed, and their will is strengthened. It is precisely such knowledge and skills that are the main task of education, and the entire education system strives for this.

In short, STEAM encourages students to conduct experiments, construct models, implement their ideas, and create products. This approach to education allows children to effectively combine theoretical knowledge and practical skills. It increases students' creativity and serves as a solid foundation for training highly qualified, modern personnel.

References:

1. Yo'ldoshev J.T. Boshlang'ich sinf o'quvchilari divergent tafakkurini rivojlantirish metodikasini takomillashtirish. Ped.fan.fal.dok. ... diss. Qarshi, 2022. – 162 b.
2. Yuldoshev J.T. STEAM yondashuv asosida nostandart topshiriqlarni yechish usullari. MUG'ALLIM HƏM YZLIKSIZ BILIMLEN-DIRIO'. Ilimiy-metodikaliq jurnal. 2023 3/1-san, iyun-iyul.

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3. Shodiyev R.D., Xudoynazarov E.M., Yo'ldoshev J.T. Matematika darslarida sinfdan tashqari ishlar. O'quv qo'llanma. Qarshi davlat universiteti, "Fan va ta'lim" nashriyoti. 2023.—172 b.