

# STEAM is a modern educational trend

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## Abstract

This article describes the specifics of the process of STEAM education for preschool children. The main participant in this process, the educator, is described.

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The active efforts of countries to modernize their educational standards and expand the scientific and technical staff raise the issue of introducing STEAM-methods in the education system of the country. Necessary conditions are being created in Uzbekistan for this. In particular, measures are being developed in the Republic of Uzbekistan to further improve the public education system. Currently, STEAM methods are being improved and implemented step by step. This form of scientific and technical education complements the STEAM sciences of the creative component of "Art", which involves the development of children's creative and artistic thinking.

At the same time, against the background of the measures taken in Uzbekistan today, the integration of STEAM-methods into the national education system remains a very multifaceted problem associated with the need to address a number of issues. It is important to create an effective system of STEAM teacher training for all levels of education, as well as to provide appropriate infrastructure in educational institutions. In addition, the forms and methods of integration of STEAM training into national programs are based on the specific needs of the economy and the labor market, the risks and costs that may arise in the implementation of public STEAM projects, scientific support and scientific and technical assistance. should be determined taking into account the parameters of education funding.

The above guidelines should be put in a specific legal form. It is a relevant normative document and a national action plan ("roadmap") aimed at coordinating STEAM policy in relevant educational institutions, establishing close cooperation between scientific and educational institutions of all levels of the country and attracting national technology companies.) requires development.

The implementation of these measures, given the strategic direction of Uzbekistan on the path to innovation, will give a new impetus to the formation of completely new approaches to national education. STEAM - the introduction of advanced standards of education serves to fully reveal the intellectual potential of young people, striving for new horizons for the development of science and the future of our country.

For example, in computer science and information technology classes, when studying the modeling of a device or its operating algorithm, writing and explaining the software model of the algorithmic sequence on the board, STEAM builds, launches and strengthens their knowledge by building missiles, planes, parachutes. Children always quickly grasp terms they have not seen or heard.

they can't. In STEAM sessions, they can easily understand these terms as they conduct interesting experiments. STEAM education combines interdisciplinary communication and design methods, which are based on the integration of natural sciences into technology, engineering and mathematics. This includes training for engineering-related professions.

Modern educational technologies are one of the main directions of development of our modern preschool education system. This is one of the main indicators of the quality of the educational process. Taking into account the physical and mental health, individual and creative development of preschool children, the use of programs that

create optimal conditions for their social and personal development is a modern requirement. We will look at the benefits and importance of STEAM technology, taking into account the educational needs of children and parents.

In a dynamically changing world, new technologies are being introduced into all areas of human life. The study found that 65 percent of modern preschoolers are likely to pursue occupations that do not currently exist in the future. In the future, young professionals will need skills and abilities in various technological fields, such as natural sciences and engineering. What might be of interest to foster children in a preschool setting right now? STEAM technologies! They allow us to raise a generation of successful researchers, inventors, scientists, technologists, artists and mathematicians from children with new perspectives.

STEAM education is now one of the major trends in the world. The essence of this technology is to interconnect the established interdisciplinary theoretical and practical approach, as well as to unite all five areas into a single scheme of development. STEAM shows preschoolers how to apply science and art in life.

What is STEAM? If we decipher the code, we get: S - science, T - technology, E - engineering, A - art, M - mathematics (natural sciences, technology, engineering, creativity, mathematics).

At present, priority is given to the technical direction. It is planned to establish IT-technology classes, STEAM laboratories, LEGO centers in all MTTs. Forms of additional education for children are changing. Our preschoolers need to be prepared for school news. Therefore, the development vector of preschool education is consistent with the possibilities of STEAM education.

Getting into the STEAM environment can begin with design, so that children gain simple technical skills and competencies using a variety of materials (wood, paper, metal, plastic) and elements, and become familiar with its principles. Engineering - A variety of constructors help children develop creativity and spatial thinking. Using the STEAM approach, preschoolers can learn the true nature of events, understand their interrelationships, explore the world systematically, and thereby develop curiosity, an engineering style of thinking, and the ability to emerge from critical situations. In parallel, children learn the basics of the art of management and administration, which in turn provides a whole new level of child development.

It should be noted that STEAM competencies can be formed in children from an early age using games that parents can easily organize at home. Making sculptures from salt dough are toys in which the child first encounters three-dimensional space: height, width and length. Plasticine modeling, on the other hand, demonstrates the connection between art and modeling. The cardboard constructor helps the child learn different touch standards as well as design. Using a geoboard (a type of toy that combines points to form a shape), students practice the area and perimeter. Lego - Teaches children to create completely different designs from the same elements. Origami - makes creating incredible shapes extremely easy and fun. Robotics kits help to introduce children to creativity using advanced technologies.

STEAM education can be put into practice by organizing design and experimental research activities in a preschool organization. The main condition for successful work is to create a favorable environment conducive to targeted actions. At the same time, there may be integration of the content of various activities of preschool children, the availability of play equipment and materials during the lessons, the availability of equipment for independent activities, the opportunity to demonstrate the results.

It should be noted that in the context of modernization of education, the issue of software and methodological development, development of material and technical base of preschool education, training of educators, specialists on the problem is urgent.

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