



## STEAM EDUCATIONAL TECHNOLOGY IN PRESCHOOL EDUCATION

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### Abstract

This article covers the issues of organizing development centers in preschool educational organizations based on a modern approach. Key words: modern approach, center, development, STEAM critical thinking, independent thinking, active communication, individual order.

**Keywords:** modern communication, center, development, STEAM, critical thinking, direct thinking, active meeting, single order.

Reforms are being implemented in the Republic of Uzbekistan to reform the education system. Decree of the President of the Republic of Uzbekistan "On the establishment of modern schools", Presidential Decree "On measures to further improve the preschool education system in 2017-2021", It is possible to highlight the Presidential Decree "On measures for the establishment of presidential schools" and many other reforms aimed at making the education system of our republic equal to the advanced education systems in the world. To fulfill these goals, STEAM in the national education system since 2016 Reforms are being implemented in the Republic of Uzbekistan to reform the education system.

Decree of the President of the Republic of Uzbekistan "On the establishment of modern schools", "On measures to further improve the preschool education system in 2017-2021", Presidential Decree "On the establishment of presidential schools" Presidential Decision on measures" and many others reforms to make the education system in our republic equal to the advanced education systems in the world can be emphasized. In order to fulfill these goals, it is said that STEAM will appear in the national education system from 2016. Currently, the STEAM education system is widely recognized worldwide. In some countries, this education system is designated as the national education system. According to the results of 2016, according to the distribution of school graduates according to the STEAM education system, rapidly developing high-tech China took the first place, the USA and Russia took the 3rd and 4th places respectively. Knowledge of trend technologies such as technology, base formation, artificial intelligence, and education in accordance with them. According to modern pedagogues, studies show that creativity, diligence, curiosity in a child through the STEAM education system are the most important nowadays.





characteristic - the ability to solve problems (problem-solving skills) is formed. Over the past 2 years, work has been carried out to introduce the STEAM education system into the state education system in the Republic of Uzbekistan. But if it is easier in private schools, it is noted that there are a number of problems in introducing the STEAM education system into the general education system. In December 2019, the Ministry of Public Education participated in the Shanghai International STEAM Education Expo (STEAMEX) in China.

A specialist from the USA was involved in applying the STEAM education system to general public education in Uzbekistan. In addition, education is provided through the STEAM education system in presidential schools established in our country on the initiative of President Sh. Mirziyoyev. Modern studies emphasize that while the STEAM system is related to the school education system, it is important to implement it from the youngest age, from the pre-school period. The importance of bringing a child into the STEAM system from the youngest age is the root of success. In fact, STEAM thinking starts in childhood. Even when the child does not know how to walk, he can understand the connection, sequence and probability of processes. These characteristics should be encouraged in every way.

STEAM system activities in the preschool education system should be carried out on the basis of a daily work plan. General **psychology** - general psychological laws, mechanisms, complex internal connections, theoretical and methodological principles, scientific research methods, philo- and ontogenetic changes of the psyche, a field that studies scientific concepts and categories, cognitive processes practically and theoretically. It is important to develop and implement activities based on STEAM educational principles. Bringing the STEAM education system into the life of a young child through books is one of the effective mechanisms. A book can be a powerful springboard to introduce a child to the STEAM system. The book will be a connecting tool between the activity and the process for the child. For example, you can talk to children about the fish in the book and study the fish living in the aquarium in the kindergarten. The book strengthens the child's interest in science from an early age, and through the book, the child's vocabulary about science increases. The important point here is not to confuse a book based on STEAM principles with encyclopedia books.

In pre-school educational institutions, based on the tasks set before us by the President, it is appropriate to perform the following tasks in forming the foundations of the STEAM system so that children are mature in all respects and develop in accordance with the requirements of the present time:





- In the process of supplying MTM with books, select books based on STEAM principles;
- Incorporating mechanisms of working with books based on STEAM principles into the work plan of the MTM system;
- Increasing the vocabulary of young children using STEAM books
- Encourage the production of STEAM books for young children, consisting of innovative technologies;
- Development of mechanisms to familiarize MTM pedagogues with the STEAM educational system.

#### *Importance of STEAM educational technology in preschool education.*

Today's demands place great tasks on the education of the world, that is, it should prepare the child to live in society in the future. First of all, it is necessary to form the image of professionals who work actively in harmony with rapidly changing and updated information among today's students. Today, the use of STEAM educational technology in the educational process is considered to be an effective method. Acquiring, processing and applying information is the basis of STEAM education program. STEAM education was developed in America. Some schools, following the future careers of their graduates, decided to integrate natural sciences, technology, engineering skills, mathematics, thus the STEM (Science, Technique, Engineering and Math) system was created. Later, Art was added to it. It happened, now STEAM has been fully formed. According to the teachers, the knowledge gained from these subjects will help students to become highly qualified professionals in the future. Such a search is carried out in research works related to obtaining knowledge in the process of practical activity, and then reusing them in practice, that is, creating constructions in games, using elements of technical creativity. This raises the question of what else STEAM means.

STEAM education means developing essential skills for the 21st century. These skills are broad and not limited to the math and science subjects covered in the classroom. In today's fast-paced and collaborative work environment, STEAM can help prepare students for success in their school or workplace programs. STEAM is an alternative approach to traditional learning. In this, children learn Science, Technology, Engineering, Art and Mathematics based on interdisciplinary connections and a practical approach. STEAM enables student projects and research activities to take place in and out of school. STEAM education directly connects student development with the outside world. It is known that natural sciences, technology directly related to the world around us, are constantly used in our daily lives, while engineering is reflected in houses, roads, bridges and machinery, a profession, our daily studies. it is





more or less connected with the science of mathematics. The approach based on STEAM education allows young students to systematically study the world, to logically observe the processes taking place around them, to understand their interaction and to discover new, unusual and interesting things for themselves.

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