

METHODOLOGY FOR DEVELOPING CHILDREN'S RESEARCH SKILLS BASED ON STEAM TECHNOLOGIES IN PRESCHOOL EDUCATIONAL ORGANIZATIONS

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Annotation: This article provides general information about the role of STEAM technology in the educational process, the processes of its implementation in practice, the connection of STEAM with practice, the organization of experimental rooms and the intended purpose, the importance of technology in the life of a child and its characteristics.

Keywords: STEAM, technology, innovative methods, laboratory, intellect, potential, thinking, information communication

At the same time, attention to the field of education has been further increased, and modern pedagogical technologies are being given priority. The most important innovative method and promising technology of today's education is STEAM technology.

In many educational organizations, STEAM technology is being purposefully used to improve the quality and efficiency of education. Laboratories and LEGO centers are being created for students to put their knowledge into practice and conduct experiments. Although STEAM technology education may seem complex, if we look at it in detail, we can see that it is simple, understandable, and clear:

S - science - natural sciences

T - technology - technology

E - engineering - engineering

A - art - art

M - math - mathematics.

The organization of education in preschool educational organizations based on STEAM technology will encourage the child to independently carry out innovative research in the future. No matter what field they choose, success requires knowledge, and it is STEAM technology that can help achieve this goal. This method allows you to combine theory and practice and allows you to build on knowledge, use it appropriately, achieve independent success, and enjoy your own opportunities.

STEAM technology is an innovative technology that allows you to carry out activities in all educational organizations.

The purpose of using this technology in education is to develop children's intellectual abilities and creativity by using modern information and communication technologies in the process of activity, increasing their scientific potential and involving them in technical creativity. STEAM technology is the most convenient program for raising preschool and school-age children. The program does not set a specific order or standards for children. It is based only on the principles that the child must independently, freely, based on experiments, achieve results by doing it himself, feeling, thinking, perceiving. This educational program is based on the principles of scientific development of L.S. Vygotsky "Properly organized education leads the child to development." In the STEAM program, it is important to organize special experimental, that is, laboratory rooms in preschool educational organizations, to involve children in voluntary education, and to develop their innovative research and intellectual abilities during their activities. In all activities organized in preschool educational organizations based on the STEAM program, the child's activity is considered important. In the STEAM program, some idea, some concept and thoughts cannot be the basis for the development of intelligence. The child must apply everything in practice and witness the result himself, or rather, feel it by doing it.

Because the activity involves manipulation and integration in a real modern environment and its the information and communication part, and the experiments carried out with them, attract the child to education and increase his interest. This, in turn, improves the quality and efficiency.

In the STEAM program, when organizing experiments with children, the age aspects of children should always be taken into account, each process in the activity should be organized from simple to complex. Only if this principle is followed, it will not cause difficulties for the child, it will be easy, convenient, interesting, and most importantly, it will allow the child to carry out experiments independently.

The success of STEAM technology in education is that STEAM gives the learner the ability to understand existence, apply the knowledge gained in practice, conduct experiments, be proud of the results obtained, feel, strive for the new, and conduct research.

STEAM technology is an experimental platform for the formation of knowledge and skills of children from 3 to 11 years old, increase their intellectual potential, develop research skills in practice, and create. The goal of the STEM technology program is to develop children's

intellectual abilities in the process of cognitive activity and to involve them in scientific and technological creativity. Expected results of the program development As the child grows older, he becomes more active in his interactions with peers, begins to show interest, asks questions, and establishes relationships of influence with his peers and himself, as a result.

Children are naturally inclined to actively form initial ideas from observation, experimentation, living nature, natural science, mathematics and other areas.

In the STEAM program, the child begins to demonstrate comprehensive intellectual, planning, and selection abilities. In various activities, relying on their knowledge and skills, they begin to make their own decisions, and demonstrate independence in various activities, namely games, communication, educational and research activities. In order to further enhance the effectiveness of the STEAM program, it is important to identify and develop children's abilities in educational organizations by conducting special experimental rooms, circles, creative competitions, games, and each activity based on information and communication technologies.

STEAM education helps children develop the following important characteristics: - Comprehensive understanding of problems - Creative thinking - Engineering approach - Critical thinking - Understanding and applying scientific methods - Understanding the basics of design. These skills will help children in the future in various issues, creative activities, when facing obstacles, and in general in solving life problems.

STEAM education, its role in children's activities, and the results that children achieve through STEAM were discussed. We will also touch on the main tools that support the implementation of this education.

1. Friedrich Froebel's didactic system
2. Experimenting with animate and inanimate nature
3. LEGO - construction, construction
4. Tools for forming mathematical imagination
5. Robotics
6. Multistudio

The educational processes through these listed tools are interesting, exciting, and most importantly, they allow the child to reveal his own capabilities, conduct experiments based on the knowledge he has gained from the environment, see, feel, think, achieve results and enjoy. In short, STEAM education encourages children to conduct experiments, build models, independently create projects, turn their ideas into reality, and create products for the child

himself. This educational approach allows children to effectively combine theoretical knowledge with practice and allows them to use it throughout their lives.

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