

**NEW APPROACHES TO STEAM EDUCATION BASED ON ADVANCED FOREIGN
EXPERIENCES**

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Anotatsiya: Maqolada O'zbekistonda ta'lim jarayonida olib borilayotgan islohotlarda STEAM yondashuvning muhim bo'lgan hususiyatlari, ta'limdagi o'rni va ilg'or xorijiy tajribalar asosida yangicha yondashuv usullari ko'rsatib o'tilgan.

Kalit so'zlar: STEAM yondashuv, yangicha yondashuv, ta'lim sifati, muammolarni ijodiy hal qilish, ijodiy fikrlash, loyiha asosidagi o'qitish, differensiyalashgan o'qitish.

Аннотация: В статье показаны важные особенности подхода Steam в реформировании образовательного процесса в Узбекистане, его роль в образовании и новые подходы, основанные на передовом зарубежном опыте.

Ключевые слова: STEAM подход, новый подход, качество образования, творческое решение проблем, творческое мышление, проектное обучение, дифференцированное обучение.

Annotation: In the reforms carried out in the educational process in Uzbekistan, the article shows the main features of the STEAM approach, its role in education and methods of a new approach based on advanced foreign experiences.

Keywords: STEAM approach, novel approach, quality of education, creative problem solving, creative thinking, project-based teaching, differentiated teaching.

In science around the world, research is being conducted on the introduction of innovative methods of training pedagogical personnel, the development of thinking of students in primary school, and their methodology. There is an increasing need to develop a strategy for the harmonious upbringing of the younger generation, the development of thinking on a modern basis, and the formation of critical thinking in the educational process. Based on these goals, it is necessary to reform education and implement new modern approaches.

New approaches to the educational process, unlike traditional methods, are aimed at developing the active participation of students, creative thinking, and practical skills. They are based on taking into account the individual needs and learning styles of students, as well as the use of modern technologies. Below are some new approaches:

1. Student-centered teaching:

Students are at the center of the educational process.

The teacher acts as a mentor and supporter.

The educational process is adapted to the needs and interests of students.

Students are involved in managing their own learning.

2. Project-based learning:

Students work on projects that address real-world problems.

Projects develop students' creative thinking, problem-solving, and collaboration skills.

Students learn to conduct independent research, analyze data, and present results.

3. Inclusive education:

All students are provided with equal opportunities, regardless of their abilities and needs.

The learning process is tailored to the individual needs of students.

Support services and customized learning materials are provided.

4. Differentiated learning:

Taking into account the different learning styles and needs of students.

Learning materials and tasks are presented at different levels of complexity.

The teacher monitors the progress of each student and provides individual support.

5. Gamified learning:

Increase student interest by adding game elements to the learning process.

Motivate students through points, rewards, and competition.

Make learning more effective through games.

6. Technology-enhanced learning:

Integrate modern technologies into the learning process.

Use interactive learning materials, simulations, and virtual reality.

Use online learning platforms and resources.

7. Collaborative learning:

Students are encouraged to work in teams, work on projects together, and learn from each other.

Develop students' communication, teamwork, and problem-solving skills.

8. New methods of educational assessment:

In addition to traditional tests, assess students' knowledge and skills through portfolio assessment, project assessment, and observations.

Developing students' self-assessment and peer-assessment skills.

These methods can be used in conjunction with each other and can be adapted to the specific needs of the educational institution. The important thing is that teachers are trained to use these methods and constantly learn new methods.

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