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WHAT IS STEAM EDUCATION?

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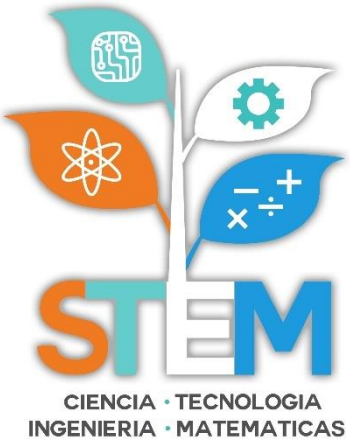

STEAM (Science, technology, engineering, art, mathematics) education is integrated teaching within the framework of the academic scientific-technical concept based on the requirements of real life.

The goal of introducing integrated education is that education imagines society, work and the world as a whole and establishes a stable connection between them;

Educating pupils to understand nature as a whole being, a single view of the universe, to understand ecological problems and the skills of rational use of natural resources, to educate a competent person who can contribute to the development of nature and society;

STEAM education in the field of natural and economic sciences, to demonstrate the relevance of the acquired knowledge, skills and competencies of students to everyday life, to conduct educational research, perform experiments, design in lessons and extracurricular activities. to educate directed creativity, to develop interest in creating news;

STEAM educational technology is based on the design method, based on knowledge and artistic research. Such a search is carried out in research works related to acquiring knowledge in the process of practical activity, and then reusing them in practice, that is, creating constructions in games, using elements of technical creativity.

STEAM education directly connects the development of students with the outside world. It is known that natural sciences are directly related to the world around us, technology is constantly used in our daily life, while engineering is reflected in houses, roads, bridges

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and machinery, a profession, daily activities. It is inextricably linked with 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 interrelation, to discover new, unusual and interesting things for themselves. By waiting for something new, the student develops curiosity in young people, identifies an interesting problem for him, develops an algorithm for finding a solution, critically evaluates the results, and leads to the formation of engineering aspects of thinking.

How does the STEAM approach affect academic performance? Its main idea is that practice is as important as theoretical knowledge. That is, during learning, we need to work not only with our brain, but also with our hands. Learning only in the classroom is not keeping pace 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 different subjects. They "read" the knowledge they received. STEAM education is not only a method of teaching, but also an education for logical thinking.

In a STEAM learning environment, children acquire knowledge and learn to use it immediately. Therefore, when they grow up and face life's 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. It is not enough to rely on knowledge of only one subject.

The STEAM approach is changing the way we think about teaching and learning. 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, which means what the entire educational system strives for. How did this new approach to education come about? This is the logical result of combining theory and practice.

STEAM was developed in America. Some schools took note of the careers of their graduates and decided to combine subjects such as science, technology, engineering and mathematics, and the STEM system was formed in this way.

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In conclusion, we would like to emphasize that, compared to traditional teaching methods, the STEAM approach in high school allows children to conduct experiments, build models, independently create music and films, turn their ideas into reality and encourages the creation of the final product.
This educational approach allows children to effectively combine theory and practical skills and facilitates university entrance and further studies.

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