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Transition on the Basis of the Steam Approach in 3rd Grade Math Textbooks

Isaeva Maftuna Bobomurod
Bukhara State Pedagogical Institute 1st stage master, isoyeva_maftuna@buxdpi.uz

Annotation: In this article, how the topics in 3rd grade mathematics can go on the basis of the STEAM approach, how this methods will affect students and its effectiveness. The main purpose of this is to teach the students with life skills in primary grades, to form students as an independent and practical result that can think independently in the future.

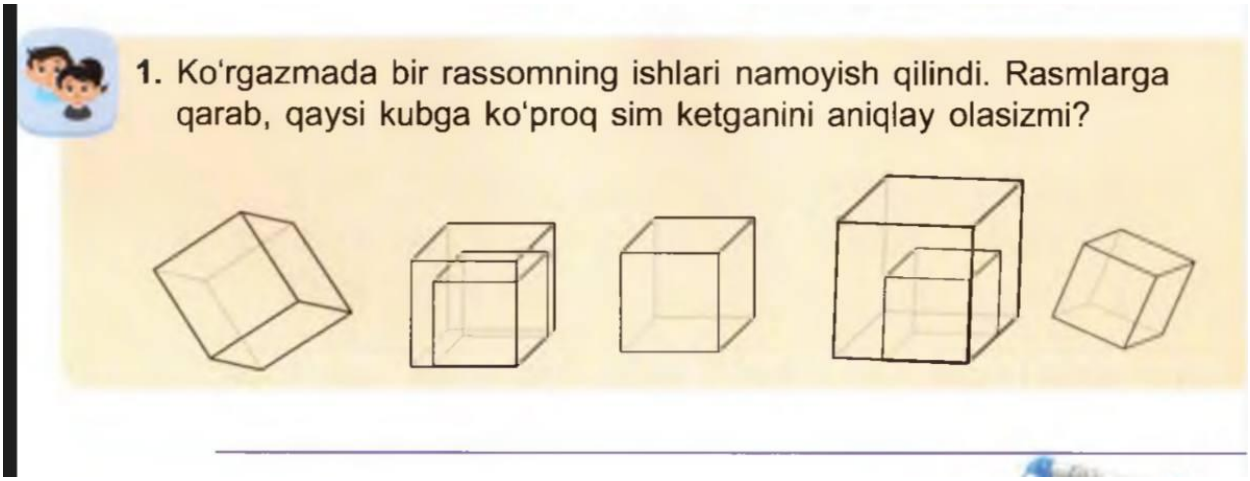
Keywords: geometric shapes, units of measurement, integration, STEAM approach, teacher, textile textile, math, art textbuilding, robrooms, innovative technologies, robotics, and digital equipment.

Introduction. Foreign and local researchers S.L.According to Novoselova's opinion; "During the educational process, the research on the use of computers not only has its special place in the development of computer technology, but also the use of the reader and identity of the reader proves the most methodological innovations in the preschool education system." STEAM (Science, Technology, Engineering, Art, Mathematics) is an integrated approach, which serves to master the children through harmonization of international knowledge. Scientists such as T. Baranova (2019) and S. Karpova (2020) have the benefits of STEAM Approaches adapted in preschool children. They base the formation of analytical thinking through STEAM technology, the formation of problems of solving problem situations. In preschool education, technologies, such as M. Sharipova and N. Khudoiberdiyeva (2021), were acquainted with the young characteristics of 5-6-year-old children. They offer to form scientific contest in children through project work, practical classes, design activities. STEAM technology is recognized as a very effective tool for the preparation of children for primary school stage in international sources, in particular. According to them, this approach teaches children to research, experimentation, and think on a scientific basis. Experimental research in Uzbekistan and abroad (for example, in Russia, South Korea) shows that children trained in children with STEAM Technologies will be high. They are with interest in sciences, to work in the team, have the skills of independent views and problems. The issue of introduction of STEAM technologies in the preschool system is also consistent by scientists in Uzbekistan. In particular, Mamatkulova recommends effective ways to harmonize science, technology, engineering, art and mathematics in raising the interest of children in their scientific work. He invites students to develop their observation and creativity through the involvement of students in practical activities. M. S. Usmanova's research has also been studied to influence the children's thinking process through the use of STEAM components. It has developed a system of suitable design training sources for children in its research, which is based on the use of constructors, the implementation of simple experiments and creative opinions through groups. G. A. Karimova's research is aimed at integrating Steam methods with game activities. He showed that the strengthening of children's motivation could strengthen its opinion through interactive games and creative assignments.

If attention is paid to international experiences, Dr. The Coding A Plyglow model developed by Marina Bers is aimed at developing his thinking by teaching the children's coding and robotics elements. The approach he suggests that children learn through the game, which increases the effectiveness of STEAM integrity. In addition, the ENGISTEING IS ELEMENT project is aimed at forming engineering thinking in primary-age children, which is used as a solution of experience, analysis and problem. Also, taking into account the natural interests and observation of Jie-Qi Chen and Barbara Taylor, the early age has developed the method of introduction of STEM (or wider STEAM) components. Their research will comply with the analytical thinking in children, the formation of an active approach to problematic situations.

If the traditional teaching system is more trained on a glorious basis, the STEAM approach will be able to apply this knowledge in practice through the STEAM approach. For example, the study of ordinary geometric shapes is not limited to memorization of their names and characteristics, but also associated these forms in various construction projects, how technological processes can be applied. The topic of the units of measurement is not only remembering the rules, but not to remember the rules, but to understand how they can be used in real life. The collection and analysis of the data is not limited to solving ordinary examples, but also integrated with statistical analysis and information technology. Now we will stop each of these.

1. Getometric shapes and their features: students create projects connected with engineering and art, not limited to drawing forms.In the study of the topic of geometric forms, students are invited to the project-related project. Students are divided into groups and create layers of straight rectangular buildings. Each group measures the length and width of its own building and calculates its face and perimet. Use of different materials (cardboard, plastics, etc.) and analysis of various materials in creating layouts. Each group prepares the drawings of its building and presented them in the classroom. We can use examples in the textbook to do these steps.



2. Apply and apply them: work on real projects, not only the measurement of length and mass. Pupils will conduct experiences and technology in the topic of gravity units, connect with trade and economics. Students measure the weight of various fruits and vegetables and record results, price. Based on the information obtained, they create a table, calculate the average weight of the vegetables, the price. Describing results in the form of a diagram, describing which fruit, or vegetable analyzes the heaviest or lightest, and determine how many amounts can be sold. Biology or tied with chemistry and measures the weight or size of different materials. To implement the above, we will help us in the 3rd Grade 3 Math textbook:

3. Collection and Analysis of the Collection: Students work with the information used in real life. At the topic of statistics, students are implementing a project, combining technology and mathematics. Students will conduct a questionnaire about your favorite fruits of their classes and collect results. The received information is entered in the Excel program and creates a column chart. Through the diagram, it determines which fruit is the most popular and discuss results in the classroom. Teach students to use simple Excel tables and diagrams.

4. Apply Communication Technologies: Lego, Arduino, Scratch In Mathematics Using Student interests and engineering are interested in programming and engineering. In the SCRATCH program, students can create a program that adds two numbers and try it with different values. Pupils on the theme "numbers and settlements" automatically automatically automatically automatically work with Lego Wedo or Arduino. The SCRATCH program represents a code that calculates the sum of numbers. Students develop skills of algorithmic thinking and automation. Understand the connection between programming and mathematics.

CONCLUSION: Threading not only mathematical concepts are mastered, but also their creative thinking, but also their creative thinking, problem solving skills and real-life dependents develops.Practical assignments, project education, digital technologies and experiences are prepared for intranster integration and allows them to teach as an active participant. Through the topics analyzed on topics (geometry, units geometrically, measurement units, statistics, units, statistical data, etc.), can be shown to students through a STEAM approach (geometry, measurement units, statistics, etc.). Through this approach, lessons are out of traditional form and serve to form as a student's active, learner and discover. On this basis, in primary school, in particular, the need to systematize STEAM based on grades is relevant, and it is proposed to develop methodological manuals and curricula for teachers in this direction. Based on the STEAM approach, the lesson changes the attitude of 3rd graders to mathematics for a positive basis, forms interdisciplinary thinking and serves to master the knowledge that is being implemented. Instead of methods of memorial ways, this model puts the reader into the center and shaping it as an active participant, independent researcher and creator. Especially the project, experimental lessons and technological means (Scratch, Lego, Arduino) expands children's thinking. Published in 2023 content of 3rd grade mathematics textbook, along with the compatibility of modern approaches, creates favorable opportunities for integrated lessons based on STEAM. However, it is advisable to effectively implement this approach to teacher skills, create methodological manuals, and separate separate sections for STEAM projects in textbooks in textbooks. Therefore, in primary education, especially in 3rd grade, the introduction of STEAM-based innovative approaches will not only deepen students, but also lay them on the formation as competitive, technological thinkers.

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