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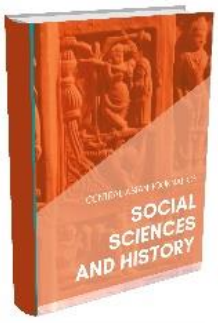

Use of Elements of Mathematical Modeling in the Development of Independent Thinking Skills in Elementary School Students

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Annotation:
The article describes the issues of using elements of mathematical modeling in the development of independent thinking skills in elementary school students.

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Keyword: triangle, rectangle, square, rhombus, cone, cube, prism, cylinder, pyramid, polygon.

"Nature speaks the language of mathematics: the letters of this language are circles, triangles and other geometrical shapes" - Galileo Galilei. Elementary mathematics course provides the student with arithmetical concepts: knowledge of operations, calculations, comparisons, differentiation, comparison, as well as geometrical concepts: shapes and their structure, different aspects, scope of use, construction methods. it will Including triangles, squares, rhombuses, rectangles, rectangles, cones, cubes, prisms, cylinders, pyramids, polygons and their vertices, sides, angles and their types, as well as three vertices and to be able to find different forms, differences, similarities and common aspects of forms consisting of three sides or four, three and four sides, but with different appearances, their reflection in nature and everyday life (triangle-the roof of the house, rectangle-the place where people live, work, study room, confectionary and confectionery products consist of geometric figures) shapes with one three-base and the expression of these shapes in everyday life (cone and grass ``bucket of rotters, why the base of this bucket consists of one point should be explained and understood) the circle is the same distance from a point, the points lying in the distance do not intersect, the circle is

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hollow, that is, it has no surface. The main difference between bread and circle is that the circle consists of a full surface, and there is a half-circle between the circle and the circle, and there is a half-surface in the circle. It should not be forgotten that by explaining in a practical and instructive manner that the part of the balloon and the edge of the circle and the circle are made up of the circle, it is important to remember the knowledge and skills in the students. If the materials chosen for the exhibitions consist of things that are used in everyday life as much as possible, this also guarantees that the lesson will be interesting, rich in opinions, and most importantly, it will have a wide educational and educational effect. For example: our national dishes are soup plates, tea bowls, soup bowls, porcelain, triangular, rectangular, circular somsa, large circles of soup dough that are made by cutting parallel lines of the same size. Our ugra-lagmons, or manti-yu made by cutting square shapes from this big circle of dough, dumplings, food garnish and carrots, potatoes, turnips, radishes, radishes, cabbage, cabbage, which are cut for various salads. ``to arrange vegetables such as onion, onion in cube, semicircle, round, straw-parallel line or rectangle, curved line; when we are tired from work and take a rest, our square pillows and chairs give our heads a soft rest; chairs, armchairs, soft furniture, sofas, beds, carpets that are laid on the floor of our room and add to the beauty... , we should be able to show the importance of mathematics in our lives, to think correctly, to use time effectively, to find peace in life and to make our everyday life meaningful and enjoyable. For this, first of all, we need to develop measures to make children interested in science, to organize goals and plans clearly, thoroughly, with the ability to see the future, that is, in today's lesson, I will teach students in the same way as I teach them. it will be more understandable and meaningful, whichever method I use, it would be easier and more convenient for me to reach my goal, what I had to give during the allotted time and what I was able to give, what percentage of my goals and plans I set for myself, experienced pedagogues work At what stage of the lesson should the repetition of knowledge be carried out so that the students can independently familiarize themselves with their work and, in turn, make a statistical analysis of the work, so that the skills turn into qualifications, and how effectively to develop the students' interest in mastering science. If the methods are used, you can expect a better result and set goals and objectives he will have to learn and start the process of education and upbringing. For three years now, teachers have been going to class without writing a lesson plan. Of course, teachers prepare according to their needs. It is not a secret that its existence is the reason for the laxity in education. In fact, an elementary school teacher should introduce an average of 7-8 methods for each lesson, and not make mistakes in explaining the scientific-theoretical aspects of the knowledge being studied (this is the most important) not only in mathematics, but also in other In science fields, the most optimal way to interest the student in science is to teach him/her to think independently, to compare, compare, analyze, and make independent decisions while respecting the student's personality. As mentioned above, we can form knowledge, skills and abilities in elementary school students, and develop an independent, well-rounded person only by introducing them to the reflection of scientific concepts in our lives, understanding their essence, and explaining them thoroughly.

Today, the majority of elementary school teachers make the mistake of teaching elementary school students too "simplistically", i.e., they deviate from the requirements of the methodology, simplify the working formulas, or do not introduce them at all. As a result of their "facilitation", the child is not able to master mathematics at the next stages of education. This, in turn, causes the teacher to not be able to achieve the desired result in the monitoring of knowledge and competence attestation. For example: 53+7, 64+6, 72+8, 21+9, 35+5, 46+4, 77+3, 88+2, 99+1,...etc. ``The teacher looks at the child with disdain, that is, that the child still does not understand the formula, or if they are used

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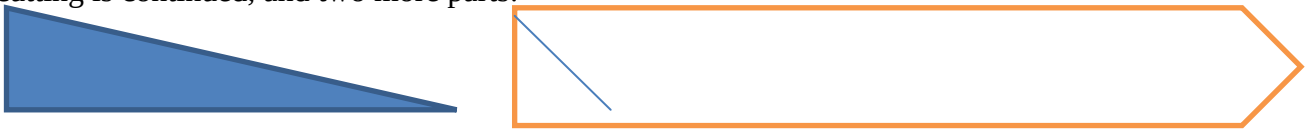
according to the order of actions, they will fail to work on the examples. It will be explained in the first step) and then the teacher himself must first understand that the actions should be performed according to the conditions. 53+7=> (a+b)+c=a+(b+c) for 50+(7+3)=50+10=60 64+6=60+(6+4)=60+10=70 72+8=70+(8+2)=70+10=80 21+9=20+(9+1)=20+10=30 35+5=30+(5+5)=30+10=40 46+4=40+(4+6)=40+10=50 In order to enrich students' imaginations, it would be good for the teacher to give the following task: find the largest and smallest of the solutions of the given examples, mark them, write down the sequence of numbers up to the largest sum, and when introducing the concept of initial diagram to the students, express the difference between the totals in the sticks and columns, of course, until the student mastered the task, the teacher should give directions and instructions in the process of finding the content of ideas and concepts. ladi If the lessons are organized focusing on the construction of shapes while making the students interested in geometry, the student will have an interest in mastering the science, he will have an independent opinion by creating shapes on his own. The teacher shows the white paper to the students, asks what shape it is, the students say that it is square, the paper is cut vertically or horizontally.

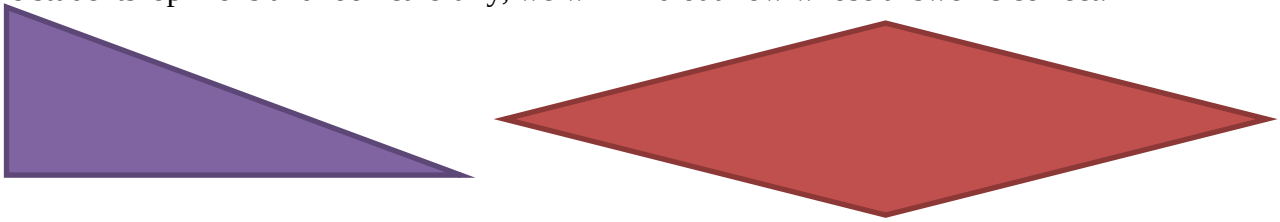
Teacher: When things are cut, cut, or sawed, how many pieces are they divided into? Pupils say that it is divided into two parts. Taking the cut pieces, he asks what shape it is, the answer is that it is a rectangle, he says that he takes one piece in his hand and uses magic scissors to make a wonderful shape out of the rectangle and cuts one end of the paper.

How many pieces was my paper divided into? - Two - What shape parts? Triangular and pentagonal scissors cut the paper into a pentagonal shape, relative to the cut edge:

These shapes are formed, the students are surprised by the formation of pentagons and triangles, the cutting is continued, and two more parts:



Triangles and hexagons are formed, stimulating students' interest; 3+6=9 is very correct, what shape will be formed if we cut this angle?! Heptagonal, octagonal, pentagonal, quadrangular, etc. Listen to the students' opinions and look carefully, we will find out now whose answer is correct.



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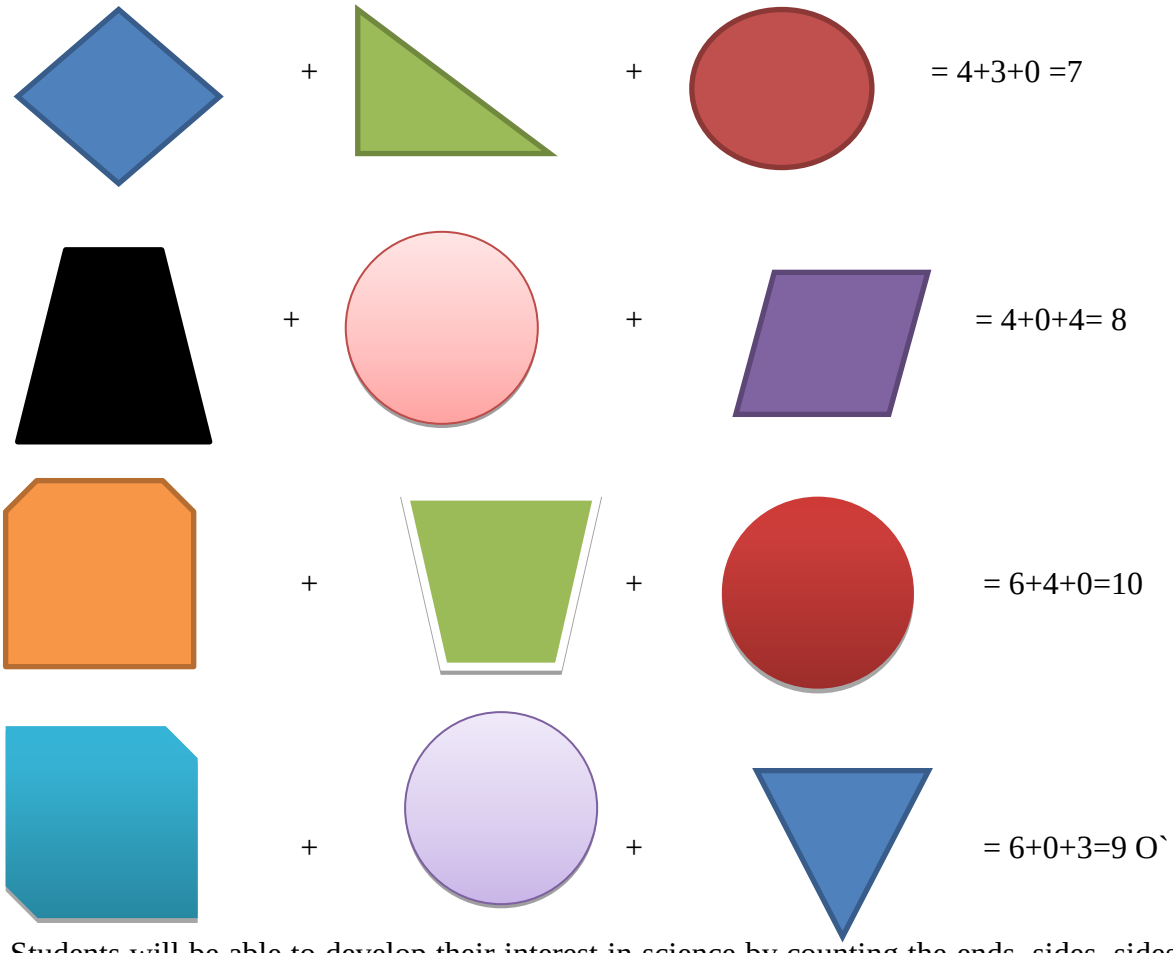
The final result amazes the children again, the formation of triangular and rectangular-rhombic shapes encourages them to think, now they themselves can imagine, perceive concepts, have their own independent opinion by completing the task independently. learn, be creative, create new things, discover, and most importantly, they do not become apathetic, lazy, lazy. I would like to introduce my didactic method created in my own experiences. This method "Numbers in the elements of shapes" enriches students' geometric imagination and increases their thinking. Taking them for a walk in the world of geometry, stereometry, planimetry, expands their imagination and imagination, learns and understands angles and their types, the importance of angles, right, acute, obtuse angles and their function in the formation of shapes, and becomes independent. they understand. Didactic method "Numbers in shapes" can be a clear expression of this.



Students will be able to develop their interest in science by counting the ends, sides, sides, and angles of shapes and writing down these numbers and performing addition or subtraction operations. In conclusion, it can be said that it is possible to achieve growth in education and upbringing by setting clear and understandable, planned goals, while not forgetting that nature and society are inextricably linked while educating students in science.

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