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URN AND ROLE OF GEOMETRIC MATERIAL IN BEGINNER CLASSES

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Introduction

In accordance with the requirements for the results of mastering the primary general education program specified in the Federal State Educational Standard of Primary General Education, subject results in the academic subject "Mathematics" should ensure the development of spatial thinking: the ability to recognize, depict (by hand) and perform the construction of geometric shapes (with specified dimensions) using drawing tools; the development of a visual representation of symmetry for students of younger preschool age; mastering the simplest ways of measuring lengths, areas.

In elementary school, the study of geometric material is gradually included in the mathematics course and correlated with the preparatory part of the study of the basic geometry course in primary school.

The main objectives of this study are:

- the formation of logical thinking of schoolchildren, the development of their initial skills in determining the simplest geometric concepts, the skills of accurately formulating conclusions based on observations;
- formation of spatial thinking of pupils of grades 1-4;
- development of initial skills and abilities when building with the help of basic tools: compasses, ruler, square;
- formation of elementary construction techniques (a piece of paper in a cage);
- familiarity with the simplest deductive conclusions based on observations, comparisons and generalizations (concepts, definitions, theorems, proofs are not introduced);
- development of skills and abilities of measuring geometric quantities.

Important tasks in the study of geometric material for younger schoolchildren are to create clear and correct geometric images for students, develop spatial representations, teach them drawing and measurement skills, which are of great vital practical importance in order to prepare children for the successful study of a systematic geometry course.

Mostly mathematics lessons in elementary school are built in such a way that the main part of them is arithmetic material, and geometric material is an integral part. This creates great opportunities for the connection of geometric and other knowledge, and also allows you to bring a certain variety to the educational activities of children in mathematics lessons, which is very important for children of this age, and, in addition, helps to increase the effectiveness of learning.

Given the continuity of educational programs, it is necessary to take into account when studying geometric material with students in grades 1-4 that children accumulate the first ideas about the shape, size and relative position of objects in space even in the preschool period. In the process of games and practical activities, they manipulate objects, examine, touch them, draw, sculpt, construct and gradually isolate their shape among other properties. By the age of 6-7, many preschoolers correctly show objects that have the shape of a ball, cube, circle, square, triangle, rectangle. However, the level of generalization of these concepts is not yet high: children contrast a square with a rectangle, do not recognize the familiar shape of an object if the object itself is not familiar to them. The child is confused by the unusual aspect ratios or angles of the figures; the location on the plane is different than always, and even very large or very small sizes of the figures. The names of the figures are often mixed up by children or replaced by the names of objects.

Solving this problem, especially at the first stage of learning, involves clarifying the terminology used by children, as well as awareness of the signs that make it possible to classify geometric shapes into the appropriate category.

Comparing familiar figures with each other, children begin to realize what the similarities and differences of the figures are. So, they notice that there are fewer sides and corners in a triangle than in a square. Already at this stage, children establish a connection between the name "triangle" and the number of angles in this figure.

After establishing a connection between the name and the number of angles of the triangle, it is necessary to continue this line and invite the children to give another name to the square. This work sets the stage for the formation of a general method of classification by the number of angles.

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