



# Ways to Use Didactic Games in The Formation of Mathematical Ideas

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**Abstract:** This article presents ideas on the essence of didactic games, forms of using didactic games in lessons, the role and importance of didactic games in the formation of mathematical ideas. Also, the types of didactic games and the conditions for their use in lessons are described.

**Keywords:** Didactic game, mathematics, mathematical ideas, conditions, method, technology, child, lesson. Bolaning ta'limi va rivojlanishiga yo'naltirilgan o'yin bu - didaktik o'yinlardir.

**Introduction:** The essence of didactic games is that children are offered to perform mental tasks formulated by adults in an interesting and playful way. The purpose of didactic games is to help form the child's mental activity. Didactic games are used not only as a means of consolidating knowledge, but also as a form of teaching.

Didactic games allow students of correctional schools to perform various pedagogical tasks in a playful way. Didactic games allow them to master serious, and sometimes uninteresting, educational material.

In the primary school, didactic games take the form of a game method of education, game moments of the lesson.

Didactic games differ from didactic exercises in that they have the following conditional elements: the presence of a goal, a didactic task, game actions and rules. Among the variety of existing types of games, it is didactic games that have a direct connection with the educational process. Didactic games are used as one of the existing methods of teaching various subjects.

Didactic games, as a teaching method, have great potential for activating the educational process.

The purpose of didactic games is to teach, develop and educate students.

The structure is the main element that characterizes the game as a form of education and a game activity at the same time.

The main structural components of didactic games are: the intended goal of the game, the rules of the game, game actions, content aimed at cognition or didactic tasks, equipment, and the presence of a result.

All didactic games are divided into three main types:

1. Games with a direct didactic effect, in which the teacher acts together with the students in the role of one of the participants in the game;
2. Games with an indirect didactic effect, in which the teacher participates in the game as an observer or spectator in a "non-game" position.
3. Games with a mixed didactic effect, in which the teacher participates in the game as a presenter, referee, specialist or consultant.

The intended goal of the game is the initial structural component of the game, usually expressed in the name of the game. It is hidden in the content of the didactic task, the solution of which must be found in the learning process. The intended goal of the game is mainly manifested in the form of a question or riddle, which determines the course of the game. In any case, it gives the game a cognitive character, sets some requirements for the knowledge of the participants in the game.

The use of didactic games in the lesson must meet the following requirements:

1. The correspondence of didactic games to the purpose of the lesson, while the content of the game must be reflected in the educational material.
2. The variety of the form and conduct of the game. In this case, it is necessary to take into account the level of knowledge of the students, the level of their mutual understanding.
3. The activity of each participant during the game (it is necessary to include all students)
4. The game must be simple and understandable for students. The conditions of the game must be understandable to children, and the goal of the game must be attractive.

Each didactic game has rules that determine the sequence of actions and behavior of students, which help create a working environment during the lesson. In addition, the rules of the game develop the skills of controlling one's own behavior and obeying the requirements of the team. Rules can prohibit, allow, or order children to do something during the game, make the game interesting or exciting.

Obeying the rules during the game requires children to

have a strong will, the ability to communicate with their peers, and overcome negative emotions that arise due to unsuccessful results. When setting the rules of the game, it is necessary to set such conditions for children that they enjoy completing the task.

Another important aspect of the didactic game is game actions, which are determined by the rules of the game and contribute to the cognitive activity of students, allowing them to demonstrate their capabilities, use existing knowledge, skills and abilities to achieve the goal of the game. As a game manager, the teacher directs it to the necessary didactic flow, activates its progress in various ways if necessary, maintains interest in the game, and encourages those who are lagging behind. Due to the presence of game actions, didactic games used during the lesson make education more interesting, rich in emotions, help increase children's voluntary attention, and create conditions for a deeper assimilation of knowledge, skills and abilities. Game actions form the basis of the game. The more diverse the game actions, the more interesting the game will be for the child. In different games, game actions differ in their orientation and attitude towards the participants of the game. This can be, for example, role-playing actions, solving riddles, spatial transformations, etc. Game actions consisting of several game elements focus children's attention on the content and rules of the game for a long time and create pleasant conditions for completing the didactic task. When a didactic game is used in the educational process, its rules and actions form goodwill, goodwill, and will in children. The basis of a didactic game is the content of knowledge or the didactic task. The content of knowledge is the acquisition of knowledge and skills that are used to solve the educational problem set by the game.

The equipment of the didactic game is mainly lesson equipment. These are technical means of teaching. These also include various visual aids: tables, models, as well as didactic handouts, prizes for rewarding the winning team.

Drawing conclusions (result) - is carried out at the end of the game. This can be counting the accumulated score, identifying children who performed the game tasks better, determining the winning team. It is permissible to highlight the achievements of each child, the successes of children lagging behind.

A didactic game has a certain result, which is the end of the game. A didactic game is manifested in the form of solving a set educational task, giving students moral and intellectual satisfaction. For the teacher, the result of the game is always an indicator of the level of success of students in mastering or applying knowledge. If students participate in the preparation of attributes and

gifts, as well as in the development of the rules of the game, the strength of the didactic effect increases.

We recommend the following games for use in mathematics lessons:

The game "Merry wagons"



Game task: Strengthen students' knowledge by solving problems with circular examples

Game description:

The teacher asks the students the following question:

-What types of transport do you know?

-Bus, tram, trolleybus, train, metro, cars.

-You answered very correctly, now we will play the game "Funny wagons" with you

Option 1

You need to find the answer to the examples shown in the visual aids.

$10-2=8$	$7-2=5$	$4-1=3$
$8+1=9$	$5+1=6$	$3-2=1$
$9-2=7$	$6-2=4$	$10-9=1$

Option 2 Problem-based tasks

Vegetables and fruits can be loaded into freight train wagons and sent from one city to another.

Onions apples carrots grapes

$8+2$	$2+7$	$6+3$	$4+6$
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**The game "Let's fly into space"**

Didactic task: To form spatial imagination of students

Game task: To form the skill of counting correctly and backwards within 10

Game content: Students are introduced to the rules of the game. Students gradually move their hands and bring them up to the head part, saying 1,2,3,4,5,6,7,8,9,10. Then, saying "We flew into space, now we are being called from below, which means we need to land on the ground," they move their hands from the head part to the chest, that is, down, and count 10,9,8,7,6,5,4,3,2,1. During this game, students perfectly master counting correctly and backwards within 10. Of course, this game will appeal to all students, it seems very interesting to them to perform hand movements together, and this game also helps to consolidate correct and backward counting within 10.

**The game "Silence"**

Didactic task: To teach students to eliminate errors that occur in the process of performing mathematical operations



Game equipment: Boards with numbers, digital shapes

Game content: The teacher shows a board with numbers, for example, 8. Each student must show a shape in which 2 numbers are represented (for example, represented by circles). The sum of these 2 numbers must be exactly 8. For example, in one digital shape, 5 circles are represented, in others -3 or 4,6 and 2,7 and 1.

The teacher brings out the students who have shown the additions with gestures to the board, and the students draw circles on the board.

Option 2: The teacher shows a number pattern with the number 5 represented by circles. Each student must show 2 number patterns or 2 numbers. The sum of these numbers must be 5. The student who shows the new variant sum must silently go to the board and write that variant.

For example: 4 and 1, 3 and 2, 2 and 3, 1 and 4.

The game "Throw the cubes and count correctly"

Game equipment: 2 larger cubes with numbers written around them.

Game content: First, two students go to the board and take turns throwing the cubes onto the table, writing the numbers on top of the fallen cubes on the board:

For example, let's say the numbers on top of the cubes are 1 and 4:

$4+1=5$

$1+4=5$

$4-1=3$



The game continues in this way. The rest of the group checks whether the examples are correct or incorrect.

Equipment: punched cards

The student solves the example and paints the corresponding circle on the punched card.

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