



DEVELOPING CREATIVE THINKING SKILLS OF STUDENTS THROUGH INTEGRATION-BASED PRIMARY CLASSES

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Article history:	Abstract:
Received: 11 th June 2022 Accepted: 11 th July 2022 Published: 20 st August 2022	In this article new educational technologies and new advanced methods from extracurricular activities are presented to the science teacher in the development of heuristic thoughts of elementary school students, and they are important for predicting the effectiveness and efficiency of education. In addition, it was discussed about the effectiveness of organizing individual-oriented education and bringing up based on a creative approach to education and training.

Keywords: Game, tool, heuristic ability, methodology, education, activity, result, ability.

INTRODUCTION. In "Action strategy for further development of the Republic of Uzbekistan" it is proposed to "Radically improve the quality of general secondary education, in-depth study of foreign languages, informatics and other important and high-demand subjects such as mathematics, physics, chemistry, biology." learning" task was set. In order to fulfill this task, we have created an improved set of exercises aimed at developing the logical thinking of elementary school students in organizing extracurricular activities in primary education. Oral exercises and questions aimed at developing students' logical thinking were defined as the main direction. That is the development of the student's speech, the systematic teaching of knowledge from easy to difficult, the formation and development of cognitive activities by repeatedly repeating the learned information.

ANALYSIS AND RESULTS. Now we will look at the methodical possibilities of extracurricular activities in the development of logical thinking of elementary school students.

1. Tutorial course is a term that represents a group of students and youth organized for the purpose of mastering the necessary knowledge and activities in a specific field, subject or direction.

The Tutorial course is one of the main forms of organizing extracurricular activities in grades 1-4. Tutorial course is the most common type of work outside the structured classroom in the elementary school. Its main task is in-depth work with students who are particularly interested in science. In order to conduct the work of the tutorial course, it is necessary to draw up its work plan in advance. For example, we present the approximate plans of the 1st grade club training in the second half of the year.

Training: 1. Inventing rebuses. 2. Interesting questions about addition. 3. Exercises for testing knowledge of counting within 100. 4. Issues that require ingenuity. 5. It's a joke. 6. Riddles.

7. Happy counting (out of 20) game.

Training: 1. Inventing rebuses. 2. Poem issues that require ingenuity. 3. Exercises on the analysis of geometric figures. 4. It's a joke. 5. "Fill the number" game.

Through the systematic organization of homework in primary education, students' ability to perform logical thinking is achieved[2].

2. Choices. Competitions are competitions in solving tasks of different difficulty, performing interesting thinking exercises. Mainly, those who try their best to solve the competition tasks according to the wishes of the students, who have sufficient preparation, participate. It is advisable to start holding contests from the 2nd grade.

After many attempts, students will develop the skill of making a magic square. By teaching how to make such magic squares, the development of students' logical thinking accelerates.

Integrated tasks (we study the terms of primary education in English)

Integrating is from the Latin "integer" - totality, "integerara" - restoration, completion, creation of the totality. Generalizes the formation of knowledge, skills, concepts, skills and competences in education and training, and makes them look like laws or rules[4].

Integration, as an important term, is a methodological tool for generalization in conclusions, general algorithms are created between the content of processes and events. It gives students the opportunity to learn information about other subjects in the process of teaching a subject. For example, teaching how to name terms in English:

Dividers – Bo'linuvchi, Divisions- Bo'luvchi
 Chamber – Bo'linma, Leave - Qoldiqli bo'lish
 The size of - Kattaliklar, Speed – Tezlik, Time – Vaqt

Each component of the educational process is a component of an integrated system. For example, competences, knowledge, skills, tasks of the educational process and the development of students' personality are concentrated for the purpose of education. Educational elements and components of students' activities are integrated in the educational content. The technology of the educational process includes various methods, methods, tools and forms of teaching.

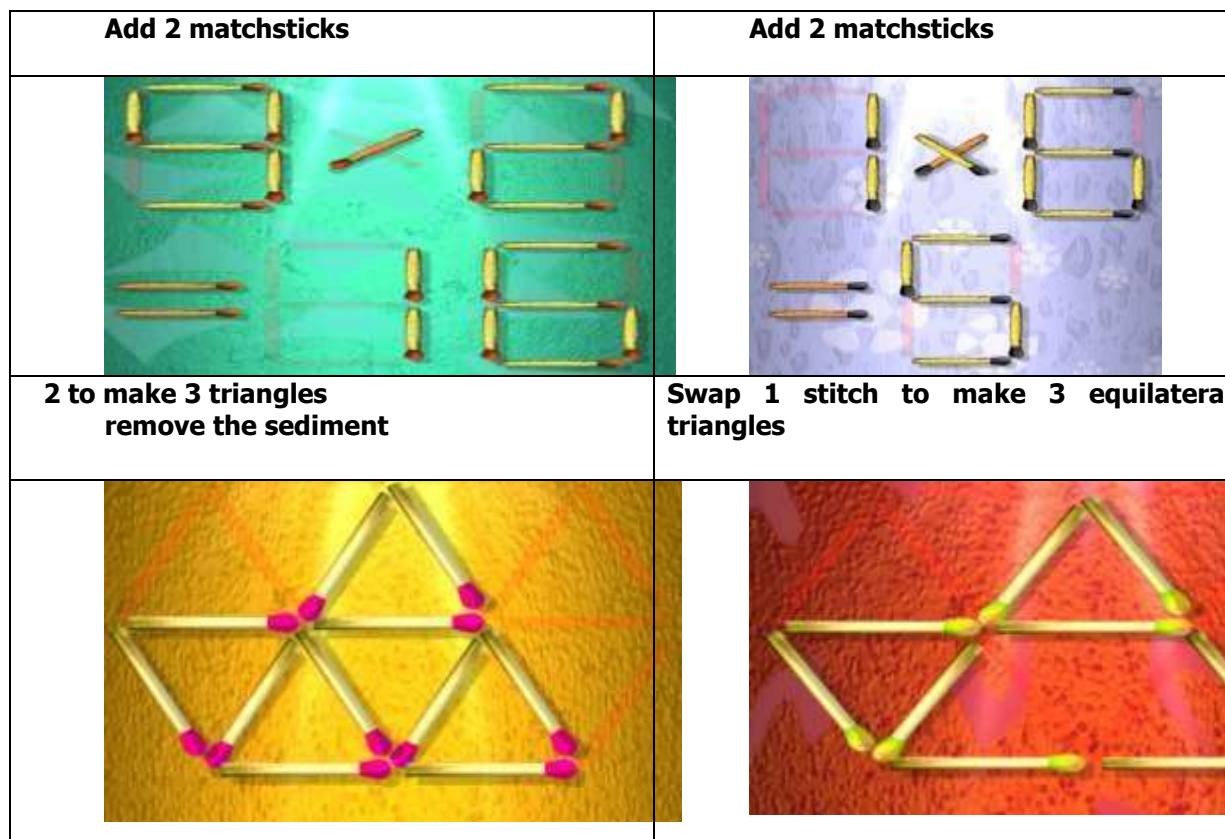
It can be seen that in designing the content and methods of a specific educational subject, it is necessary to integrate the knowledge of various fields. In particular, it is necessary to use pedagogical and psychological knowledge related to social, economic, cultural, spiritual, information technology, scientific and technical achievements, development and management of personal activity in the formation of basic competencies in students.

The development of integrative technologies of teaching and their application in educational practice expands the possibilities of developing logical thinking in students. This is especially evident in the process of primary education. Because the basic competencies formed by the students in the lessons determine the level of readiness for their future educational activities and the life of the micro-society.

Tasks that develop logical thinking through matchsticks

The ability of the student to find the right solution is important when performing logical tasks using matchsticks. Such exercises develop the student's intellect.

The intellectual resource gives students the opportunity to enrich their intellectual and productive potential, their lifestyle in different directions and forms, to open new aspects of it, and to perfect it based on knowledge, life experience, perception and intelligence. There are more than fourteen billion neurons in the human cerebral cortex. Their task is to manage human activity in all aspects. Every action a person performs is a product of the activity of neurons. This is a fact that has been thoroughly studied and fully recognized in world medicine. For this reason, it can be said that the role of resources in the manifestation of a person's intellectual identity is incomparable[8]. But a person uses only 4-4.5% of these intellectual capabilities, i.e. resources. Of this, 4 percent is received in the period between 8-11 years of age, and the remaining half percent is received throughout life. And naturally gifted students will have the opportunity to properly distribute the remaining half of their knowledge for their life after the age of 11. The physiological analysis of the human brain shows that the intellectual power in his brain is equal to the incomparable power in the nucleus of an atom. The question is how to develop it and how to use it. Historical sources testify that every baby in the cradle has the potential to become a genius. The main issue is how to educate him.



Picture 1.

Learning Uzbek folk proverbs. Teaching Uzbek folk proverbs to elementary school students is one of the main factors of teaching students to think in primary education. Proverbs are very important in teaching the morals of the

Uzbek people, based on their mentality and values, which are sharply different from those of other peoples of the world. During the years of independence, the Uzbek people, along with many values, restored their moral values and began to inculcate the experience of following them in pupils and students. The abundance of wisdom and proverbs related to manners is an integral part of the life of our people and shows that it is the basis of our values. For example, "*Adabli bola elga manzur*", "*Adabing – axloqing*", "*Adabni adabsizdan o'rgan*", "*Adab– adabni chorlar*", "*Adabli kelin boy kelin*" and so on.

Morality is formed in students in two ways: 1) by studying the experience of ancestors; 2) through educational, exemplary, setting an example, inculcating moral virtues in society.

The proverb "Intelligence and manners are twins" teaches how a person should behave in society, and first of all, to teach the student to be the owner of ideas, mind, manners and morals, to be conscientious, voluntary, and honorable. encourages.

Using the poem approach in primary education.

If we rework the mathematical material and pay attention to it from the point of view of art (literature), then the subject of science and art will be integrated[13].

In addition to being an encyclopedist, Avicenna focused on explaining his works in a poetic way. As a result, many of his works became very popular in his time and in subsequent centuries.

In addition, the concept of "scientific poetry" has existed since ancient times, in which the talent of science and poetry are combined, and it is intended to express views about something and a phenomenon in terms of theoretical research. For example: Horace's "Science of Poetry", Munis's textbook "Educational literacy" are examples of scientific poetry.

Poems to native language terms:

Alphabet

Bilimlar oroliga, Boshlovchiman men o'zim.

O'rgatay bilimlarni, Ilk muallim men o'zim.

Sentence.

Ohang hamohang bo'lsa, Fikrlar bo'lsa tugal.

Men ham paydo bo'larman Kesim bo'lsa mukammal.

Sounds.

Quloq soling tinglang jim, Atrof turfa tovushlar.

Meni bilmas ayting kim? Men-la jam muloqotlar.

So'z turkumlari Og'a-ini jamlanib, Gapda tayyor turamiz.

CHaqirsangiz kim deya, So'z turkumi bo'lamiz.

Harflar Hayotingiz bezay deb, Xotiralar tuzay deb.

Men kelganman dunyoga, Yozma nutq qilay deb.

Exclamation.

So'zlab agar kimgadir, Undamoqchi bo'lsangiz.

Yoki ta'kidlab yolg'iz, Xabarlashmoq bo'lsangiz.

Tayyor bo'lgum o'sha payt, Undalmajon desangiz.

Mathematics, with its leading position among the exact sciences, requires deep and detailed study. It requires a lot of will, diligence, patience and endurance from the learner, so it takes a lot of time and effort to master the science. For this reason, the problem of finding a solution to this problem remains a challenge for Methodist scientists. Various studies and researches are noteworthy. Among them, various researches on the organization of mathematics lessons in elementary grades are noticeable. Among them, the teaching of science materials in the Shehri method attracts people involuntarily.

5 passengers got off the train and there were 10 times more passengers than those who got off. How many passengers were in the car?

Poetic statement:

Vagonlardan tushdilar Yo'lovchilar beshtasi

Undan o'n marta ortiq Vagonda bor nechtasi?

Answer:

Yo'lovchilarning barin Qo'shsa nechta bo'ladi

Javobi ekan oson ellik beshga to'ladi.

40 identical toys are placed in boxes of 4 each. How many boxes are all the toys in?

Urban interpretation:

40 ta o'yinchoqni biz, 4 donadan joylaymiz.

Qancha qutiga sig'ar, Ana shuni o'ylaymiz.

Answer:

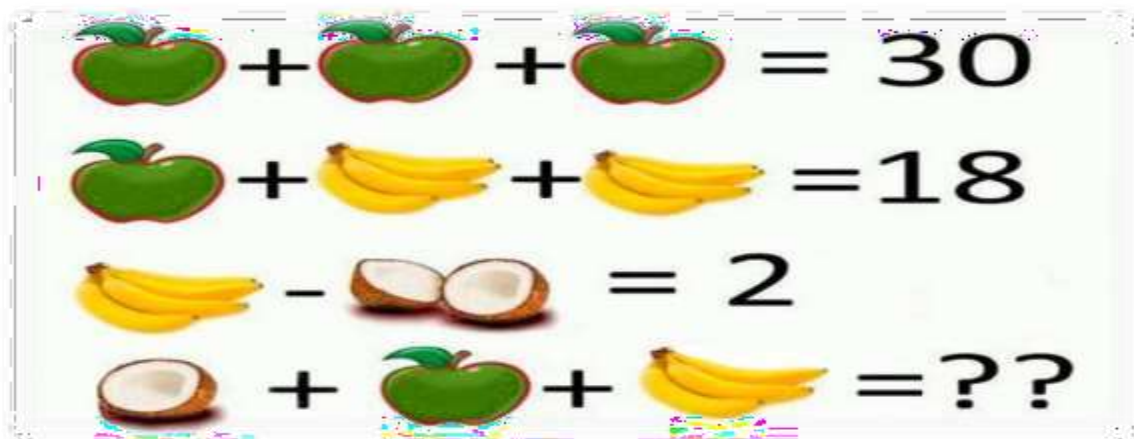
Har qutiga 4 tadan o'yinchoqni joylasak.

O'nta qutiga sig'ar, Bundoq qarab o'ylasak.

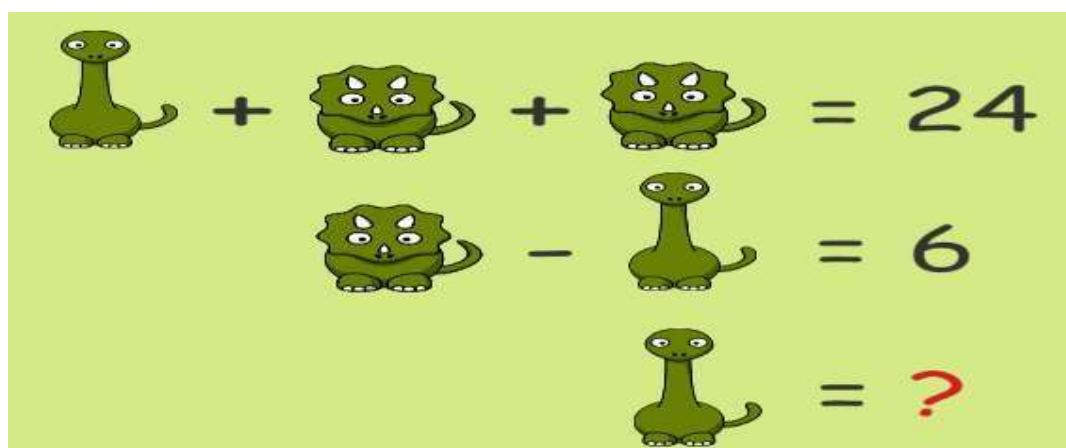
It is known that such an approach to the subject requires prior preparation, and this preparation guarantees the effectiveness of the work. It is true that not all tasks in the textbook can be weighted. Some complex tasks can hinder this, but if even complex problems are approached creatively, students' logical thinking will develop.

Mathematical puzzles: Mathematical games and puzzles represent didactic tools aimed at forming elementary mathematical concepts in children. It is one of the oldest ways to develop intellectual potential. Through the wide use of arithmetic

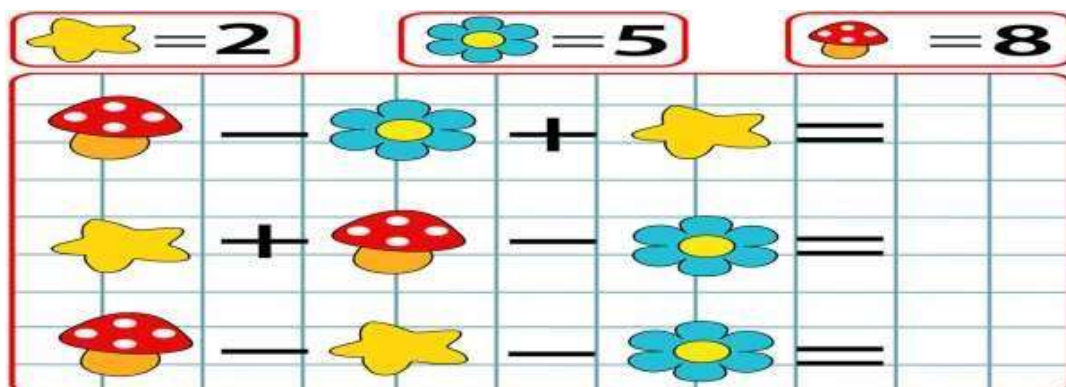
tic puzzles in primary education, the chances of rapid formation of students' oral arithmetic skills increase.



Picture 2.



Picture 3.



Picture 4.

Riddles. Riddle is an independent genre of folklore. In ancient times, riddles helped to better define existence and the essence of things existing in it by comparing and simulating nature and natural phenomena. A riddle is not only entertainment or pastime, but it is also a tool for testing the intelligence, intelligence, and sharpness of thought,

as well as being introduced to the surroundings, environment, and nature through a riddle. Because it teaches a person to be responsible now. Other genres of folk creativity: epic, fairy tale, song, proverb, etc., are the spiritual wealth of the people and the product of collective creativity. It is widely connected with all aspects of human, social life, natural phenomena, and is always based on the ground. It shows various objects in the real, material world surrounding us. Each riddle is an independent work of art with its own form and content. This genre is performed in the form of answering a puzzle question between two people or a team[7]. The question part of the traditional riddles is riddled with nature, natural phenomena and things, in general, all kinds of objects are given a poetic tone by means of imagery - comparison, simile. The answer part is to tell the name of the puzzled object - thing or natural phenomena, to find the meaning, to reveal the hidden thing, to know. There are riddles that are very difficult to find the answer to. In order to find the simile and comparison of the rounded, compared thing in it, it is necessary to think a lot, to identify and search for specific signs through constant thinking.

It is difficult to find the answer to the simile and comparison of something that is puzzled and hidden. In order to find the answer to the riddle, it is necessary to think carefully about the text, to understand what is being referred to, and to try to determine or guess what the main feature and signs of the riddle are aimed at. Riddles are one of the most concise genres among folk works. In fact, a riddle can be made even from two words.

For example: Click, like (Frog). Traditional riddles are often told in one-line - prose form, and in two, three, four and more than three lines - in verse form. One- and two-line riddles occupy a lot of place in Uzbek folklore, as is often the case in the folklore of other nations.

For example, a one-line riddle: **Yer tagidagi oltin qoziq. (Carrot).**

Daraxt emas, yaproqli, Ko'ylak emas, etakli,

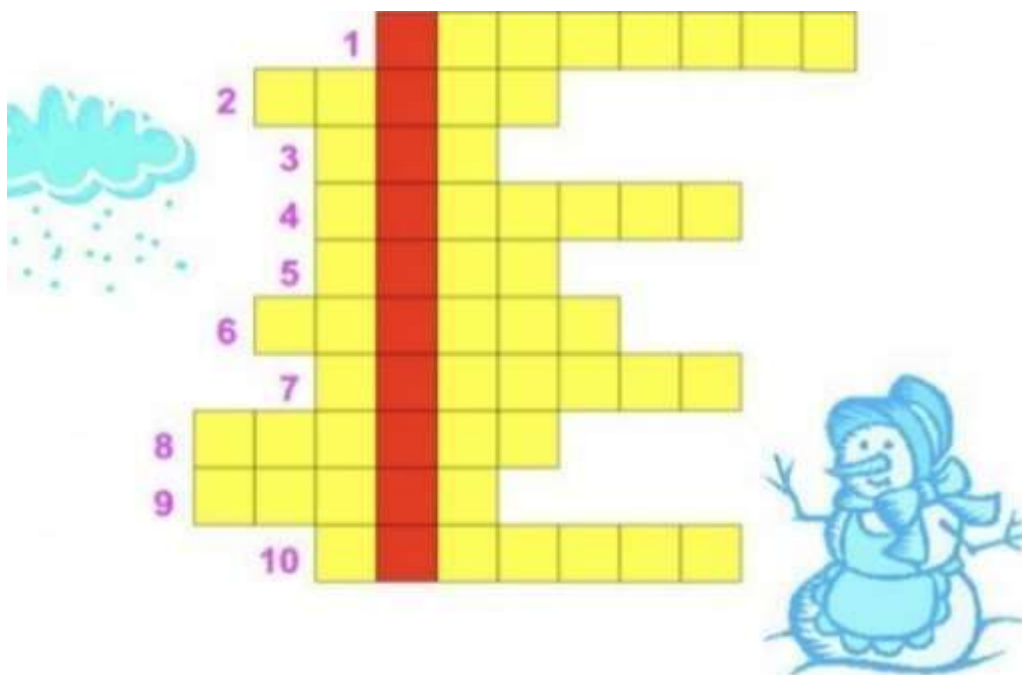
Odam emas so'zlaydi, Turli kuylar kuylaydi. (Book)

Bodomcha bodomcha bilan, Yetti kalit tom bilan.

Ne ko'zi bor, ne og'zi bor, So'ylashadi odam bilan. (Book)

In primary education, it is important to use riddles to develop students' logical thinking. Because Riddles are a folkloric genre that has multiple solutions and is related to the reader's own understanding, and in fact, there is only one solution.

Crossword:



Picture 5.

Folklore, Maze, Quantities, Fun Puzzles and Facts, Learning to Assemble a 3x3 Rubik's Cube, Public Events, Field Trips, Historical Logic Problems, Tricks, Games, Sophisms, Fables, Making and Measuring Logic There are many exercises such as problems, great people's instructive thoughts, and full and appropriate teaching of these in primary education will be an effective solution to the problem of developing students' logical thinking and will be the basis for the development of their communicative competence.

CONCLUSION/RECOMMENDATIONS. It is necessary to rationally apply a systematic approach based on the principle of coherence in the development of logical thinking of primary school students. We have developed a set of out-of-class work tasks for primary classes aimed at logical development. We consider these tasks to be a source of predicting an effective solution to the problem we have chosen. So, games are the main type of activity of children,

through which students of junior school age learn life, existence, environment and adapt to it.

It is known that the quality and effectiveness of children's play directly depends on the life observations and personal experience of the participants. Qualities such as awareness, initiative and willfulness are important in this. Therefore, the use of games with different socio-psychological characteristics in the educational process undoubtedly shows its effectiveness.

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