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WAYS TO FORM MATHEMATICAL CONCEPTS AND IMAGINATIONS IN PRIMARY CLASS STUDENTS BASED ON FAIRY TALES

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Abstract: this article presents ideas about the effectiveness of using fairy tales to help elementary school students achieve educational efficiency and deepen their learning of mathematics.

Key words: modern technologies, fairy tales, mathematics, creativity, creativity, reforms.

How a child develops into a person depends on parental education and the influence of the environment. From a young age, a child receives spiritual nourishment from his parents, friends, and people around him, imitates them, and learns many customs and manners. Primary school teachers should create a foundation for the all-round development of their students, that is, while instilling interest and passion in studying and learning, they should develop such qualities as expanding their perception, thinking skills, and worldviews. he should fully mobilize his professional activity in the process. The basis of the use of fairy tales in the process of teaching mathematics in elementary grades is not only the memorization of educational information, but also the process of deep understanding, knowledge and active assimilation of it. The main task of teaching mathematics at school is to ensure that students acquire a strong and conscious system of mathematical knowledge and skills that are necessary in everyday life and work, sufficient for learning related subjects and continuing education.

Formation of mathematical concepts in elementary school students based on fairy tales is the basis for deeper teaching of mathematics based on their fantasy world and interests. Telling students fairy tales involving different mathematical numbers and integrating the processes in them with mathematics will help elementary school students learn mathematics better and more perfectly. Each fairy tale has its own idea. For example, the fairy tale "Turnip" encourages children to think, tell events in sequence, and ensures that they understand the idea of "Strength in unity." As the events in the fairy tales happen in relation to each other, children begin to understand

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this connection and the relationships between people. The fairy tales skillfully told by the teacher help to create an upbeat, cheerful mood in the child, to establish an emotional and friendly communication with the little one, to organize an educational effect without noticing, easily, to develop knowledge about the environment and makes it possible to efficiently fill information reserves. Meeting with fairy-tale heroes will not leave the child indifferent. Each fairy tale has a structure consisting of three main parts: the imaginary country, the conflict between the characters, the resolution of the conflict, and the happy ending. A mathematical fairy tale, of course, has a bias towards one branch of mathematics: arithmetic or simple geometry. If numbers are presented in the plot, then the child will remember the names of the shapes and their appearance, and if there are numbers, they will soon learn to count. Fairy tales make children happy and interested. As noted by the famous mathematician N. I. Markushevich, "a child who is not brought up in fairy tales will have a hard time accepting the world of ideal aspirations, a person can distinguish truth and individuality through fairy tales, without reading fairy tales one cannot develop not only worldview, but also the 1st skill of critical thinking. There are 3 different ways of using fairy tales in mathematics class:

- fairy tale lesson;
- a mathematical tale;
- a fairy tale.

Fairy lessons. There is always a good mood in the morning lesson. And this serves as a factor of increasing the student's activity in the lesson. Fairy tales teach students kindness and honesty along with providing humor, fantasy, and creativity to the lesson. In the fairy tale lesson, the heroes of the fairy tales experience difficulties and unexpectedly encounter problems. To overcome them, to help the heroes of the fairy tale, they perform mathematical problems, find the answers to riddles, and tell proverbs about mathematics. As a result, the lesson is integrated with the mother tongue, reading, science and other subjects.

Mathematical tales. All the above qualities are kept in fairy tales with mathematical content. Only the heroes of fairy tales consist of various numbers and geometric figures, and their content contains mathematical ideas. The use of mathematical stories in repetition or reinforcement lessons of a new topic is effective. For convenience, it is recommended to divide the story into parts.

"About 0" is a mathematical tale.

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Far, far away there was a country of numbers. As long as real numbers live in it. Only 0 was distinguished by laziness and dishonesty. In the desert, far away, a queen called Arithmetic appeared. As the Queen called the people of the land of numbers to serve her, everyone wanted to serve her. There is a desert between the land of numbers and the Queen of Arithmetic. It was crossed by 4 rivers. Rivers of Division with Addition, Subtraction and Multiplication. How to get to the Kingdom of Arithmetic? The numbers decided to unite and cross the desert. In the morning, when the sun's rays reached the ground, the groups set out and finally reached the Koshish River. The sons wanted to drink water from the river, but the river said, "Stand in pairs and join, then I will give you water."Everyone did what the river said. The lazy Noljan fulfilled the river's wish, but the number added to it did not agree: because the river said that it will give as much water as there are numbers in the addition, and the addition did not differ from the number. The sun is getting hotter. Then they reached Ayirish river. He also asked a question about water: "I will give water if they divide the older one from the younger one in pairs, and the one who answers the most will get more water."The number with zero is sad again. They began to leave the hot desert again. The river of multiplication asked the numbers to multiply. Numbers multiplied by zero are completely empty. They barely reached the Bolish River. No one wanted to stand with Zero in the river of division. From then on, no number is divisible by zero. But the Queen of Arithmetic has reconciled all the numbers with zero. He started by putting a zero in front of the number, and the number increased 10 times, and the numbers began to live well.

Elementary school students are interested in fairy tales and believe in the events of fairy tales. Mathematical concepts can be easily inculcated in their minds on the basis of fairy tales like the one mentioned above. Now, after reading the above-mentioned fairy tale, you can analyze the fairy tale by asking a series of questions, and the following questions will appear:

- Why is it called the country of numbers?
- What does the number 0 mean?
- What does the Queen of Arithmetic do in mathematics? (She studies numbers and operations on them).
- What rivers separated the Kingdom of Numbers and Arithmetic?...etc.

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If there are gaps in the task, the teacher will pay attention to that area, and some of them can be understood from the content of the story, and some actions can be written on the board.

The teacher can ask the children to continue the story in some places or assign the story as a task. It is also possible to combine the above methods. Such tales are the basis for making repetition and reinforcement lessons interesting. The fairy tale and related questions provide an educational result and help students develop their mathematical thinking.

A fairy tale - issues. Fairy tales occupy a special place among interesting issues. Fairy-tale problems are the translation of a situation from fairy tales into mathematical language. They have fairy-tale characters and fairy-tale plots. In general, a fairy tale can turn non-mathematical concepts, interesting events into mathematical problems. Such a combination is useful for the learning process, because the teacher finds a way to the child's emotions through the story. In elementary school, fairy tales especially help to learn geometric materials, because these materials require a highly developed imagination. Tales help to think at the given time, to find and use the necessary information in making decisions.

For example: Three fishermen fished all day. Tired fishermen came to the lake and fell asleep. The first fisherman who woke up in the morning took a portion of all the fish, dividing them into three equal parts. He threw the remaining fish into the water and left. The next fisherman who woke up also took a portion of the remaining fish, dividing it into three equal parts. He threw one remaining fish into the water. The last fisherman who woke up also divided the remaining fish into three equal parts. He threw the remaining one fish into the water and left with his share. How many fish did the fishermen catch? How many fish did fisherman 1 catch? What about fisherman 2? What about fisherman 3?

Issue 2. Once upon a time in a distant kingdom lived a king with three daughters. They liked to solve riddles in the evenings. For each correct answer, the princess received a gift. The eldest princess liked receiving gold gifts, the middle princess liked receiving diamond gifts, and the youngest liked flowers and animals. One evening the king said: “I have brought many different gifts from far away countries. Which of my girls solves the puzzles correctly will get prizes. Task number 1 - For the big princess: you picked 5 yellow apples from one apple tree and 5 red apples from another. How

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many apples did you pick in total? Task number 2 - For the average princess: you have 6 diamond rings in your box. I brought you 2 more rings. How many rings will you have in total? Task number 3 - For the little princess: you had 9 kittens, 2 ran away. How many kittens are left? All the princesses solved their problems correctly, and the king presented the eldest princess with a golden chest, the middle princess with 2 diamond rings, and the little princess with a happy puppy. This is the end of our story.

Issue 3. Once upon a time, there lived a girl named Cinderella. He was an orphan, raised by his stepmother and had two daughters. The girls were very lazy and Cinderella had to do all the housework. One fine day, the king invited everyone to my base. But Cinderella's stepmother did not allow her to go to the party. She ordered Cinderella to solve all the problems that she had not solved so that her daughter would come back: The room has 4 corners. There was a cat in every corner. In front of each cat - 3 cats. How many cats are there in the room? How to bring water to the sieve? What dishes can not be washed? And also Cinderella had to wash the dishes: 5 spoons, 5 cups and 5 plates. How many dishes were washed?

Such fairy tales improve the interaction between elementary school students and activate the activity of all students in the lesson and increase their interest in learning. Imagination relies on life experience gained and accumulated during the development of creative activity. Fairy tales accelerate and strengthen the development of this imagination. Regardless of what fairy tales are, it is a factor that develops, strengthens memory, teaches to dream and fantasize, encourages patience, and creates inner feelings. Usually, work on the formation of the ability to compose mathematical tales begins with reading a completed mathematical tale. Then, those who want to invent their own mathematical fairy tale are invited, and it is explained that the importance of this work lies in the story line of the fairy tale, for example, it contains the properties of numbers or geometric shapes. Homework for writing a math story is unconventional for a math class, and therefore it is of great interest to children. Every student wants to check: can he realize his creative idea, how will the teacher evaluate the fairy tale, how will his classmates react to his work? Many people take it upon themselves to write a mathematical fairy tale, but not everyone and everyone succeeds. Students should be reminded of the structure of a fairy tale, despite the fact that they have learned it in literature classes. For this, students are offered a note: "How to compose a mathematical fairy tale." Mathematical stories are a means of developing further

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mathematical creativity. They are also a tool for more solid mastery of basic mathematical concepts. Creating mathematical stories is a creative process for both the student and the teacher.

In conclusion, it is necessary to strive for all-round, well-rounded development of a person. One-sided development of abilities does not contribute to success in mathematical activities. Various forms of written expression of ideas, in particular, the composition of mathematical tales, can be of great benefit to the development of the student's creative personality. At the same time, it is important to evaluate not only the content, but also the form of presentation of the material. In order to arouse interest in mathematics and develop creative thinking in elementary school students, it is necessary to create mathematical stories, which are one of the forms of developing children's mathematical creativity. Mathematics should be studied better and deeper, but the thought should come from within. The success of learning a school course in mathematics depends on the teaching tools and methods. If the lesson is not built on the basis of interesting creative activity of the students, the concepts will not be deeply mastered. The proposed work on the creation of mathematical fairy tales should go in parallel with certain forms of special education and complement it meaningfully. Writing math stories is not a substitute for learning. The creation of mathematical stories involves not only the ability to imagine about mathematical topics, but also the ability to speak competently, as well as confidently manage mathematical concepts. Writing mathematical fairy tales is an activity that attracts children of different ages, but in the middle grades, not only opportunities, but also difficulties increase: how to build a storyline so as not to violate the integrity of the fairy tale and avoid conflict. From mathematical concepts in the storyline independently invented fairy tale using will allow you to remember these concepts more firmly and more fully. Children do not notice that they learn and memorize new fairy tales involuntarily, that this newness comes naturally to them. That's why when writing mathematical stories, the main attention is focused on the formation of students' ability to deeply understand, consciously and actively learn, and use the received educational information independently and creatively.

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