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CARRYING LOGICAL DEEDS THE IMPORTANCE OF MENTAL DEVELOPMENT IN CHILDREN

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Annotatsiya: Just one skill mastered before the age of 12 can change your child's future. Science has proven that the ability to achieve success depends on the harmonious development of the right and left hemispheres of the brain. If 5-12-year-old children develop their right hemisphere to the level of the left, they will achieve more serious results.

Key words: Phenomenal, intellectual, frequency, visualization, stimulation, extraction, cognitive.

Well; how to achieve this?

Mental arithmetic is an effective way to achieve this.

Mental Arithmetic is a very effective program for developing mental skills using abacus arithmetic calculations. Suitable for children aged 4-16. Develops independence, initiative, self-critical assessment. Mental Arithmetic already works in 52 countries of the world. Mental arithmetic develops engineering and mathematical thinking, students have the ability to concentrate on tasks, memorize large amounts of information, and solve complex mathematical problems. Acquired abilities have a positive effect on the development of the mind and the formation of the personality.

ental arithmetic is a promising platform for additional education, which allows to achieve excellent intellectual and creative development results in the educational process.

The rapid pace of scientific and technical development encourages us to keep up with the times and pay proper attention to the education of modern children. There are not enough school and pre-school education programs. That is why mental arithmetic became relevant.

This system of teaching oral counting is based on the use of ancient abacus counting, which has existed for more than a thousand years, so they have been tested by time and practice for many generations.

During arithmetic operations, the child simultaneously moves the wooden bones of both hands with the thumb and index finger, which helps the harmonious development of both hemispheres of the brain. At the same time, the child learns to express numbers and mathematical movements in the form of a certain position of bones on a knitting needle.

The left hemisphere of the brain is responsible for logic, mathematical abilities, and the difference in language, while the right hemisphere is responsible for creativity, art, imagination, visualization, and non-verbal aspects. Malaysian scientists also support this conclusion. Using both hands when working on an abacus initially stimulates both sides of the brain. Because the child always moves with two hands. Working with the abacus is a continuous process, the child constantly feels and moves the bones. This activates both parts of the brain. Man achieves a speed of extraction previously only possible for mathematical geniuses.

Thus, the effectiveness of the program for teaching mental arithmetic based on the system of oral arithmetic with the help of mathematical calculations in abacus is explained by scientists:

1. Development of the ability to imagine - learning to see, creating a mental picture at the same time increases memory. In foreign psychology, this process is called creating a flash card - this is a difference in the skill of creating a virtual image of the bones located on the abacus. By the end of the program, the child will have more than a million images stored in his memory;

2. The ability to develop the center of attention and bearish speed of response to the task, as well as the ability to include a number of cognitive processes and resources in the construction of symbol systems;

3. The difference in self-confidence, getting rid of the fear of complex mathematical calculations, the development of self-esteem in a child who has mastered mental calculation techniques;

4. Taking into account the activity approach in teaching mental arithmetic.

In Japan, children must learn abacus in elementary school. This approach to education has already paid off.

According to Chinese and Japanese teachers, if adults and children start practicing abacus at the same time, adults will not achieve the same results as children. The program is designed for 2 years, but parents notice the first results after 3-4 months.

Abroad, there are serious scientific studies on the influence of mental arithmetic on the intellectual or personal development of a person. Stanford University professor Michelle Frank conducted a complex and scientific study in India and concluded that mental calculations do not work with the linguistic system, but are based mainly on mental experience, frequency. The scientist together with his colleagues instructed the subjects to perform arithmetic operations while preventing them from performing calculations in various ways (clicking, reading the book aloud, etc.). As it turned out, students of schools of mental arithmetic showed the highest results compared to groups that did not receive training on this program. The untrained group was more prone to verbal intervention.

Practice shows that the result of learning for many children is not only a determined calculation ability, but also improves concentration, memory, develops figurative thinking, imagination and observation, improves the ability to analyze and generalize. At the same time, emotional and volitional qualities (independence, persistence in achieving results, voluntary regulation of behavior, self-confidence) develop.

With the correct approach to teaching and strengthening the knowledge of children of preschool and primary school age, it is emphasized that they demonstrate phenomenal skills in performing arithmetic operations in their minds with 2, 3, 4-digit numbers. Scientists and practitioners see an important factor in the effectiveness of the program in the fact that during the learning process, the child almost always experiences the process of achieving success, which is related to positive reinforcement, a specific method. The child gets answers quickly, sees the result directly, all this creates great opportunities and a sense of self-confidence.

Toshio Havashi, an American doctor of engineering and professor, director of the Advanced Research Institute of Science and Technology, said in a lecture he gave at Kinugawa on July 30, 2000: Through research on brain physiology and technological advances, we can better

understand the blood flow in the brain. can accurately measure the amount, our research shows that, by all accounts, it is very effective in activating the right hemisphere of the brain.

In conclusion, mental arithmetic develops the ability to achieve success in any business.

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