



DEVELOPING LOGICAL THINKING AND SPEECH IN PRIMARY SCHOOL STUDENTS THROUGH THE FORMATION OF SCIENCE CONCEPTS

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Received: September 2 nd 2021	The article recommends that the use of methods such as observation and problem-solving, comparison, use of conversations, analysis, synthesis, reasoning be effective in the development of logical thinking and speech of primary school students.
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INTRODUCTION

Love of nature is a big and complex feeling. It includes high mental and intellectual circles, forms a complex psychological complex. The education of this feeling should begin at an early age, because the child grows up with a love for nature, a native land, a motherland. This feeling, born in childhood, develops and enriches first in the family and then in the school years after preschool, which is to some extent helped by natural science. Perceptions of natural phenomena in the family gradually emerge during the child's development.

In a 2-3 year old child, natural phenomena such as the ability to distinguish between the sun and the moon, day and night, the change of seasons with the child and some changes in the weather (rain, snow, sunshine, cloudy and cloudless skies) are formed through observation. The child's interest in nature is increased by collecting colorful, beautiful leaves in the fall, white snow on the trees in the winter, on the sidewalk, trees in bloom in the spring and fruit trees in the summer.

Natural concepts are generalized knowledge about objects, events, and a whole group of objects combined with common essential features. For example, the concept of plants includes important features that are common to all plants. They all grow, develop, breathe, multiply, that is, living organisms. It is necessary to be able to distinguish concepts from imaginations. Imagination is the product of the activity of the sensory organs, memory, or imagination. Concept is a product of thinking. Concepts are formed as a result of thinking about what is perceived and imagined.

For example, to imagine a bird, it is enough to look at it. To form an idea about that bird, you need to know exactly and think about systematizing them. Perception and imagination are images of certain things.

In the first year of school, children learn general simple natural concepts about plant and animal organisms based on observations in nature, reading fairy tales and stories from the textbook of acquaintance with the environment. They also imagine along with generating insight. As a result of imagination, children develop thinking, logical thinking. In the formation of natural concepts, the teacher should pay special attention to the use of different thinking: analysis, synthesis, comparison, observation, abstraction, etc. tulip) and suggests dividing these plants into parts (root, stem, leaf and flower) and then determining the function of each part, i.e. analysis. After that, children should combine the parts of an object into a whole, that is, use the method of synthesis. Analysis and synthesis is the most important method of thinking, with the help of which concepts are formed.

Concepts formed in this lesson or on one topic will not be developed later and will not be associated with other concepts.

Without developing the student's thinking, without involving them in the work of thinking, it is impossible to achieve the mastery of concepts. To stimulate the thinking activity of students, the teacher puts problems in front of them at the beginning of the lesson.

Thinking and speech play an important role in shaping the concept of natural science. An elementary school teacher should monitor the correct pronunciation of students. We need to engage individually after class with students whose speech is not well developed. One of the most important materials for speech practice is the nature around the reader.

Introduction to the environment is based on children's observations. Often, young schoolchildren are unable to observe nature, draw conclusions, tell the content of their work, and find it difficult to relate observations to practical experience, textbook text, and the topic studied.



That is why when working with speech exercises for use in science lessons, the teacher must rely on certain forms of mental work - analysis and synthesis. Younger school children often have difficulty distinguishing signs of things, events, activities, so it is necessary to link this work to observations or to conduct them based on students' perceptions or memories.

Observations are routinely different natural phenomena; development of plants from seed; observing the awakening of plants in the spring and the glow of a flower in nature also helps students to see and accept the world around them, nurturing curiosity. These are all the basis for the development of thinking and speech. The process of observation also helps students to see and accept the world around them, fostering curiosity. In the process of observation, students learn the signs of things. 1 Grade students are interviewed during a fall walk in the garden, during which the children see the colors on the tree leaves change.

At the same time, they notice that the colors change on the lower branches of the same trees. assignments related to other features are given.

For example, when children observe a maple tree, they are given the task to show its signs by body color, the shape of the leaf fruit, to compare its fruit with the maple fruit, to determine how the maple leaf differs from the maple leaf. After the slide show "Who Winters", it is a good idea to practice with students to develop logical thinking. Children are encouraged to explain how animals adapt to having an awkward time of year.

Oral and written exercises are very effective in developing your children's logical thinking.

1. Watermelon, black cherry (cherry). oral questions about the shape, color, smell of apples, tomatoes, carrots.
2. What are the common signs of the sun, moon, and stars? 3. Name the things that can be called soft, warm, fluffy, high, sweet, fragrant at the same time. 4. Spring and autumn, crow and hawk, wheat and corn, dog and cat, maple and maple, apple and general signs of pear are asked of children orally and in writing. Indicate a few signs of something, such as sand, clay, granite. Based on the given examples, the teacher creates assignments and exercises, links them to the reading and observations in the previous lessons.

Given the importance of this method, it is necessary to look more broadly. Comparison is the identification of similarities and differences between things and events. Comparison is the analytical work of the mind. The process of comparison is complex and involves synthesis, generalization and conclusion. , if

they can distinguish the important from the less important, it will be possible to make a comparison in such circumstances.

The following requirements should be followed when creating assignments for comparison.

1. It is only necessary to compare things and phenomena that are related to each other, i.e. whether there are similarities or differences between them (spruce and pine, maple and maple, acacia and glidichia).
2. The comparison can be goal-oriented (e.g., wolf and dog, dog and cat), the comparison can be not only in terms of external signs, but also in terms of character and benefits.
3. The comparison should end with a conclusion.

The exercise should begin with a comparison of two objects or events. Then you can compare three, four, or even more objects. they begin to distinguish not only the characters they do, but also the similarities. They identify the most important signs of events and things. Observation and conversation are material for comparison.

Before starting the comparison, it is necessary to show how to get to know them. It is easier to do this in the conversation. can reveal connections between events that the senses do not perceive.

Analysis is the ability to divide a whole into definite parts, to divide it into special characters, to distinguish between similar things. For example, all cereals have roots, stems, leaves, flowers, and fruits. is the conclusion (the roots of cereals consist of many thin roots; the stem is hollow-straw; the leaves are narrow and long; the fruit is grainy).

As a result of thinking, new connections can be made that have never been seen before. In the process of thinking, the student thinks.

The child compares plants and things with the mind. Often the child is skeptical before mastering these complex forms of mental activity, making mistakes that are specific to his age.

By asking the "why" questions, the teacher teaches the children to try to answer correctly, while developing their logical thinking to justify their opinions.

CONCLUSION

In short, in primary school, young schoolchildren are given a clear idea of the environment, based on which their interest in biology will increase in future grades. thinking and meaningful speech are developed.

Observations of natural phenomena provide students with clear and varied material for comparison, generalization, and oral and written expression of their



impressions. The earlier students become acquainted with nature, the more positive the effect of nature on their upbringing and mental development.

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