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Formation and Development of Students' Imagination and Concepts in Science Lessons

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ABSTRACT

In this article, the structure of knowledge about nature in primary school includes the idea of inanimate nature, objects and phenomena, plants and animals, the protection of the structure and health of the human body, agricultural labor in different seasons. and concepts, thinking about simple geographical imagination.

KEYWORDS: inanimate nature, body, events, plants, animals, furniture, dishes, transport, home appliances, tools, health, personal hygiene.

Knowledge of nature in the primary grades includes inanimate nature, objects and phenomena, plants and animals, the protection of the structure and health of the human body, ideas and concepts about agricultural labor in different seasons , simple geography and concepts.

When children come to school, they get acquainted with the world around them under the guidance of a teacher. The first acquaintance with the world around them is based on the perception of their sensory organs. The first stage of learning the world should give children the opportunity to look at all the news and, if possible, to communicate directly with the object of study in the formation of initial perceptions and concepts accordingly.

In the process of observing seasonal changes in nature, students learn about certain types of plants and animals, the conditions necessary for plant life (e.g., the external conditions of plant growth, i.e., heat, light) , depending on humidity, soil condition), changes in the life of plants and animals in different seasons.

In the process of learning, students ***acquire*** more than twenty types of concepts: ***furniture, dishes, transportation, home appliances, work tools, plants, animals, health, personal hygiene,*** and more.

Students' personal practical activities on grouping their specific objects and their descriptions are of great importance in the study of species concepts.

Based on the purpose of environmental education and upbringing, the science of natural sciences sets itself the task of explaining to children the impact of man on nature and the riches of nature.

Students practically reinforce their perceptions of the subject and objects of the surrounding world in the process of learning, didactic and creative games, self-service and socially useful work. In this way, educational, pedagogical and developmental issues are addressed in order to intensify the cognitive activity of students in the study of materials for acquaintance with

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the world around them and their development as a comprehensively mature person.

Methodological conditions that ensure the effective mastery of the concepts of science.

There are many cases when students do not master the learning materials. This is because their knowledge has remained at the level of imagination. Concepts formed in this lesson or on a single topic are not further developed and are not linked to other concepts. It is a necessary system of conditions for the development of concepts. In particular, the formation of the concept of natural science takes place under certain methodological conditions.

Such as natural object observations, perceptual exercises; the teacher's thrilling story ensures that the reception is right. The teacher's questions, drawing from memory, exercises on recognizing different things help the imagination to be correct. A clear problem statement, the logic of the teacher describing the learning material, a system of repetition that connects and develops the concepts of exercises for identification and comparison, questions that require generalization ensure the correctness of the concepts .

Natural concepts can be correct in the context of direct perception - based on observations, in which a clear and unambiguous picture of the object or phenomenon being studied is formed. Different types of objects and visual materials (tables, diagrams, pictures, etc.) are of great importance in the primary formation of the concept.

It is not possible to achieve the mastery of concepts without developing students 'thinking, thinking, and engaging them in work. To stimulate teachers 'thinking activities, the teacher puts problems in front of them at the beginning of the topic and lesson. By describing the teaching materials, it seeks to engage teachers in identifying cause and effect, the connections between natural phenomena.

Interdisciplinary communication (with speech development, reading, mathematics, mother tongue, music, singing, technical work, drawing) is important in mastering the concepts of science.

The systematic use of interdisciplinary communication teaches children to apply previously acquired knowledge, to make logical connections in all types of learning activities.

Teacher questions play a big role in nurturing active thinking in students. The following questions might be an example: What adaptations of animals living in the desert will help them withstand drought and scorching heat? Why don't big trees grow in the tundra? What are the similarities between steppe and desert nature? and so on

A system of questions that develops concepts is best presented in a table, using diagrams.

Development of logical thinking and speech:

Thinking and speech play a major role in shaping natural ideas and concepts. An elementary school teacher should monitor students 'speech for accuracy. One of the most important materials for shaping speech is the nature around the reader. Introduction to the surrounding nature is based on children's observations.

In the process of observation, students learn to notice the signs of things.

The teacher can conduct exercises with students to develop logical thinking by composing a variety of questions tailored to the topics.

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Creating questions to teach you to compare things is familiar with their thinking differences as they consist of characters of the same shape.

Comparison means identifying the signs of similarities and differences between things and events. Comparison is the analytical work of the mind.

Currently, in order to test students' cognitive activities and their knowledge, science classes use programmed learning that helps each student to be independent in their reading and to organize the reception and processing of learning information. Programmed learning allows you to track the acquisition of knowledge, to determine at what point there is a gap, to determine what changes are needed in the learning process.

For programmed learning:

- Careful analysis of educational materials, their strict selection and distribution in a logical sequence;
- to guide students' cognitive activities.

In programmed learning, the independence and activity of students in the acquisition of educational material increases, there is an opportunity to individualize learning.

In the application of programmed elements, it is not necessary to contrast traditional teaching with programmed teaching, to abandon methods that are generally accepted as new. Both directions should be closely connected and complement each other.

Let's look at the options that can be applied to programmed learning in the primary grades:

1. Thesis-type card-assignments, on a numbered card are given the names of natural objects (plants, animals, etc.). Students do not write the name of the desired plant or symbol in their answers, only the appropriate number.

2. Digital programmed tasks. In digital assignments, work is done on individual cards or on a specially prepared wall chart. The card is given a task instruction and a key to the answers. The reader must find the desired key. As a result of this work, the teacher will have the opportunity to test students' knowledge in 4-5 minutes, both in order to consolidate the material they have just learned, and in checking homework.

For example, it is possible to create assignments that determine knowledge on a natural map (grade 4).

Homework:

1. The source of the river.
2. Depth of river flow.
3. The place where a river flows into another river, lake, sea.
4. A river formed by the confluence of the Panj and Vakhsh rivers.
5. The Black River is a river formed by the confluence of the Naryn rivers.
6. A river that has no place to flow.

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The key. 1.Amudaryo. 2. Syrdarya, 3. Ozani, 4. Beginning, 5. Zarafshan, 6. Flowing place.

Answers: 1 (4), 2 (3), 3 (6), 4 (1), 5 (2), 6 (5).

3. Programmed didactic cards. Such programmed tasks can be used in different types of lessons, as well as in the process of individual and frontal work with students. You will have 5 minutes to complete the task. During this time, the student should answer 2-3 cards and indicate the answers in numbers.

Program cards are created according to the options of the studied topics. The card contains a question and three answers: complete and correct, vague, incorrect answers. The student should write the card number and the answer number in parentheses in the notebook.

Card №1.

Why do birds fly to hot countries?

1.Because it stays cold.

2. They have no food to eat.

3. Because it stays cold and hunger occurs.

Answer: (3)

Card №2.

What is soil?

1. Soil is a natural mineral

2. The upper, soft layer of the earth in which plants take root.

3. The soil is the top layer of the earth.

Answer: (2).

In addition, observation, excursions, experiments, practical work play a leading role in the study of natural sciences. Teaching children observation techniques, recording their results in a diary, drawing conclusions and generalizations based on them will help them increase their knowledge. Excursions help to study natural phenomena and reality in a natural way. Therefore, it is necessary to pay special attention to the conduct of science lessons.

The practical study of extracurricular activities in science can be carried out as follows.

1. Each district (school) has its own natural resources, to acquaint students with them.

2. To be able to measure water, air and ground temperature with the help of a thermometer.

3. To be able to create an ecological passport of classes

4. Caring for plants and animals at school, at least setting up an aquarium in the classroom (where water is polluted, plants grow under the influence of the sun, and monitors the development of single-celled animals, mollusks, and other organisms).

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REFERENCES

1. Xalilova F. “СУВЎТЛАРНИНГ ЭКОЛОГИК ГУРУҲЛАРИ ВА АҲАМИЯТИ” МАВЗУСИНИ ЎҚИТИШДА ХУСУСИЙ МЕТОДЛАР //ЦЕНТР НАУЧНЫХ ПУБЛИКАЦИЙ (buxdu. uz). – 2020. – Т. 4. – №. 4.
2. Qo‘ldoshev R. A. LEFT-HANDED CHILDREN AND THE LEARNING PROCESS //EPRA International Journal of Research and Development (IJRD) Volume. – Т. 5. – С. 277-281.
3. Qo‘ldoshev, R. A., SINF CHAPAQAY O‘QUVCHILARINING MAKTABGA BIRINCHI, and MAKTABGA MOSLASHISHI DAVRIDAGI PEDAGOGIK YORDAMNING MOSLASHISHI. "MAZMUNI//Pedagogik mahorat." (2020).
4. Qo‘ldoshev, R. A., and Y. Y. Azimov. "Чапақайларни ёзишга ўргатишга доир.
5. Qo‘ldoshev, R. A. "THE CONTENT OF PEDAGOGICAL ASSISTANCE IN THE PERIOD OF ADAPTATION OF LEFT-HANDED FIRST-GRADERS TO SCHOOL, ADAPTATION TO SCHOOL AND ITS FEATURES AMONG STUDENTS OF THE FIRST YEAR OF STUDY." *Pedagogik mahorat.-Buxoro* 5 (2020): 132-135.
6. Qo‘ldoshev, R. A. "LEFT-HANDEDNESS AND THE REASONS FOR ITS OCCURRENCE." *MONOGRAFIA POKONFERENCYJNA SCIENCE, RESEARCH, DEVELOPMENT* 32: 2020-31.
7. Qo‘ldoshev, R. A. "Cognitive activity of left-handed children.«НАЧАЛЬНОЕ ОБРАЗОВАНИЕ: ПРОБЛЕМЫ И ПЕРСПЕКТИВЫ» III-Международная научнопрактическая конференция." (2020): 132-136.
8. Rustambek Q. O. L. Birinchi sinf chapaqay o ‘quvchilarining maktabga moslashishi, maktabga moslashishi davridagi pedagogik yordamning mazmuni //ЦЕНТР НАУЧНЫХ ПУБЛИКАЦИЙ (buxdu. uz). – 2020. – Т. 1. – №. 1.
9. Кулдашев Р. А. ЧАПАҚАЙ ЎҚУВЧИЛАРДА ЁЗУВ ҚУРОЛЛАРИ БИЛАН ИШЛАШ КЎНИКМАЛАРИНИ ШАКЛЛАНТИРИШ: РА Қўлдошев, Бухоро давлат университети Бошланғич таълим методикаси кафедраси ўқитувчиси //Образование и инновационные исследования международный научно-методический журнал. – 2021. – Т. 2. – №. 3. – С. 198-217.
10. Rustambek Aezmurodovich Qo‘ldoshev BOSHLANG‘ICH SINF CHAPAQAY O‘QUVCHILARNI YoZUVGA O‘RGATISHNING ILMIY-NAZARIY ASOSLARI // Scientific progress. 2021. №6. URL: https://cyberleninka.ru/article/n/boshlan-ich-sinf-chapa-ay-uvchilarni-yozuvga-rgatishning-ilmiy-nazariy-asoslari (ma'lumotlar obrascheniya: 25.10.2021)