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The Methodology Of Forming The Ecological Thinking Of A Student In Teaching Natural Sciences (Using The Example Of The Third Grade)

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Abstract: This article examines the issues of improving students' ecological thinking in teaching natural sciences in primary schools, in particular, in third grade students, identifying opportunities for developing students' ecological thinking in teaching natural sciences, analyzing students' facts, creating a mechanism for connections in the study of phenomena and processes, and studying natural science disciplines. In the work on the conscious assimilation of educational material through the application of previously acquired knowledge, skills and competencies in new situations, the content of natural science education contains important information about the use of modern educational technologies for the continuity of knowledge in various academic disciplines exploring problems related to the relationship between man and nature.

Keywords: Elementary school, natural sciences, ecological environment, interdisciplinary education, ecology, form, method, means.

Introduction: The twentieth century brought environmental problems to humanity along with tremendous progress. The intensification of man-made impacts on the environment has progressed significantly. Over the past 30-40 years, the impact of anthropogenic factors on the environment has increased several times and solving the environmental problem has become an urgent problem for all mankind. Over the years, the issues of environmental education have been reflected in ancient literature, hadiths, and examples of oral folk art. However, there are problems such as a person's ignorance of the norms in

environmental management, causing harm to nature as a result of every activity, which encourage a person to always stay awake before realizing. Modern geographical science not only analyzes the natural, socio-economic processes in the territory, but also forms environmental education among students, raising the relationship between man and nature to a rational level in the use of resources, protection of territories, teaching specific natural and social features of territories. The purpose of the development of mechanisms of environmental education in geography lessons is the development of ecological culture and consciousness, the behavior of students–the correct formation of the geographical environment and human relationships, the achievement of nature protection based on the natural, economic and social characteristics of the territory in which he lives. Currently, the harmonization of the relationship between man and nature and the reduction of anthropogenic impact on nature have become a very important issue for the life of mankind. In ancient Chinese chronicles dating back to 500 BC, there is such a Scripture: “if you think about a year, plant a seed in the ground, if you care about 10 years, Plant a tree, if you care about 100 years, grow a man.” Consequently, in any of our virtuous endeavors, the concern for education has long been emphasized.

Natural sciences in school education provide students with a modern scientific picture of the world. Therefore, natural sciences form the scientific basis of the reader's worldview. Interdisciplinary interaction should be aimed at developing generalized scientific ideas of students. The integration of knowledge requires a special approach to learning. Because the presentation of educational material in a generalized system indicates the need to use problematic, modular, personality-oriented technologies in the educational process. For natural science, the structure of living and inanimate nature, and the energy exchange in them, is a system of concepts about internal energy. Biology, chemistry, and physics are concepts that combine academic disciplines. Matter, its forms of movement, level of organization, and cellular structure are important.

The systematic implementation of interdisciplinary interaction in the teaching of these disciplines lays the foundation for students to understand the integrity of “nature-man-technical society". On the basis of this, students form a systematic and holistic understanding of nature, in which everything is interconnected, as well as on the basis of the cycle of matter and energy carries out the processes of continuous creation and self-improvement. Therefore, normal biophysical and biochemical conditions of life on earth are maintained. On this basis, interdisciplinarity prepares the ground for understanding the essence of the features occurring in modern sciences in the learning process: integration, socialization, humanization. Primary education, which occupies an important place in the formation and consolidation of behavioral qualities in the formation of ecological consciousness, ecological thinking and ecological culture among younger schoolchildren, has certain capabilities. Therefore, the focus on familiarizing students with the environmental views of Central Asian thinkers in teaching science in primary schools gives positive results. The formation of knowledge in the minds of students based on the ecological heritage of the great thinkers of Central Asia educates them in the skills of responsible attitude to the environment and nature.

Environmental education among primary school students is a problem of national importance, the solution of which depends on an approach to the problem from a scientific and pedagogical point of view and the definition of effective ways to solve it.

Therefore, in general education schools, serious attention must be paid to ensuring the systematic, continuous transfer of environmental knowledge to students. Therefore, to this day, many studies have been conducted in the fields of natural sciences on the path of ensuring environmental sustainability, nature conservation, and environmental cleanliness, in which positive results have been achieved. The role of natural sciences in the study of the outside world and the knowledge of the mysteries of nature is invaluable. An explanation based on the integration of natural sciences of the interrelated development of phenomena occurring in nature and society, the connections between them forms an integral system of knowledge about the organic world in the personality of students and forms a scientific worldview.

METHODOLOGY

Interdisciplinarity in the educational process can be effectively implemented not by itself, but through professional, scientific, theoretical and methodological training of a teacher and based on a deep understanding of his essence. To do this, the teacher must not only have a deep and thorough knowledge of the subject he teaches, but also know the interdisciplinary knowledge close to him. This is facilitated by mastering certain types of knowledge and forms of interrelationships between them. A specific aspect of the research work is to identify the pedagogical conditions for using the heritage of Central Asian thinkers in the formation of ecological thinking among younger schoolchildren. The ecological views of Central Asian thinkers are an important methodological basis for research work, and

there is also a question about how much the rich spiritual and educational heritage they left behind in the fields of philosophy, pedagogy, and sociology has been studied.

Environmental education is becoming the core of modern education and is the key to rebuilding its modern systems and society as a whole. Thus, the role of environmental education as the basis of a new ethics and support in solving many issues of people's practical life is especially relevant today. The relevance of this topic increases due to the fact that the environmental education of younger schoolchildren is the most important task of a teacher. primary school involves the use of various forms and methods of environmental education in the environmental lesson, including local history.

The peculiarities of the formation of love and respect for nature among T.A.'s younger schoolchildren are revealed in his works. Bobyleva, L.D. Bobyleva, A.A. Pleshakova, L.P. Saleeva, and others. Problems of environmental education of A.N. in his works. Zahlebny, B.T. Likhachev, L.P. Saleeva, I.T. Pechko, I.T. Suravegina, and others. These authors reveal the purpose, objectives, principles, and conditions of environmental education. We find a description of the means, forms and methods of environmental education of A.N. in his works. Zahlebny, N.A. Gorodetskaya, A.A. Pleshakov.

Interdisciplinary environmental education is an important pedagogical issue. Many scientists in this field have conducted scientific research. In particular, various aspects of environmental problems in primary education are considered by M.A.Yuldashev, G.Sultanova, N.Ashurova studied the work of N.H.Egamberdiev aspects of moral education of students under the influence of the environment, M.Rakhmatullayeva conducted research work on the formation of students are interested in the aesthetics of nature in the 6th grade and during extracurricular activities. However, the development of theoretical and practical foundations for the formation of students' ecological thinking in extracurricular activities in primary schools, and their widespread distribution among younger schoolchildren have not been comprehensively established.

The purpose of the interdisciplinary explanation of environmental education and upbringing of younger schoolchildren is to teach them to know nature and protect it, to form interdisciplinary theoretical knowledge, practical skills related to environmental education and upbringing.

The learning process is understood as the process through which the educational and cognitive activity of students, aimed at mastering certain educational material, mastering cognitive methods, and the pedagogical activity of the teacher, based on the organization and management of this process, achieve learning goals in interaction.

When teaching biology in combination with natural sciences, the process of students acquiring certain knowledge, skills and abilities standardized by biology and DTS curricula, their upbringing and the development of ecological thinking requires the use of various forms of education. A lesson is a form of learning that implements the requirements of the program, and therefore field trips, housework, extracurricular and extracurricular activities should be used locally and effectively. These forms of education constitute a system of forms of biology education. Lessons, excursions, housework, extracurricular activities and extracurricular activities together ensure the achievement of common educational goals provided for by teaching biology in combination with natural sciences, as well as the development of environmental thinking, the assimilation of educational material by students, and serve to analyze the results obtained.

If the educational content requires studying the diversity of flora or fauna, adapting to different environmental conditions, then in this case it is advisable to organize an excursion or show videos. Along with the lesson, extracurricular and extracurricular activities play an important role in the formation of environmental concepts.

The use of the laws of physics is becoming increasingly important when conducting observations and experiments on environmental issues.

In the lesson, the teacher assumes the achievement of learning goals through a combination of learning content, teaching methods and tools that prepare the ground for the development of students' ecological thinking. However, not all questions can be studied in the classroom, for example, when conducting experiments that require long-term observational work, extracurricular activities should also be used.

Homework is inextricably linked to the lesson, it is a logical continuation of the content studied in the lesson and a factor in the independent acquisition of knowledge by students. On assignment and instruction from the teacher, students work on conducting less complex experiments, observing nature, studying additional literature, preparing lectures or essays on certain topics, and collecting collections. The basis has been prepared for students to master the methods of cognitive activity through the performance of educational tasks.

An ecological excursion is an important form of the

educational process that allows students to familiarize themselves with objects, phenomena, laws of wildlife, basic theoretical concepts, apply theoretical knowledge in practice, and master methods of cognition of the universe.

During the ecological excursion, the knowledge gained by the students is used for such purposes as consolidation, summing up, systematization and generalization of knowledge in the process of studying a new subject, linking the acquired knowledge with physics.

Alternative excursions allow students to activate and develop independent cognitive activity. During the tour, students acquire new knowledge and skills by using previously acquired knowledge, skills and abilities in the process of completing educational tasks individually or in small groups. Ecologically well-organized excursions to nature allow students to expand their knowledge of the local environment and the work of organisms (biogeocenoses), the diversity of flora and fauna, prepare exhibition materials from local objects, equip them, instill a love of nature, aesthetic taste and culture, and form a conscious attitude to nature. When teaching ecology in combination with natural sciences, the following requirements apply to the lesson:

- clearly define the educational goals of each lesson and clearly define its place in the lesson system;
- optimal selection of environmental educational materials in accordance with the level of students' education, learning objectives, and curriculum requirements;
- identification of ways to develop ecological thinking based on general and specific biological concepts, skills and abilities that will be included in the lesson;
- to enhance the student's cognitive activity by identifying and harmonizing effective teaching methods, tools, control and stimulation of knowledge and teaching methods in order to implement each stage of the lesson;

Along with the gross teaching of students in the classroom, the organization of their independent work alone and in small groups can include such tasks as meeting the need for learning, increasing interest, developing independence, and thinking.;

a clear statement of the educational goals of the lesson, taking into account the knowledge acquired by the students, the expansion of the scientific horizons of the topic, the possibilities of spiritual, moral, mental, hygienic, physical, sexual, economic education, the formation of aesthetic feeling, diligence, ecological culture;

the skills and abilities of self-learning by students, meeting the need to study biology, developing interest, stimulating creative activity and initiative in their activities;

development of a design development of a lesson at the scientific and methodological level based on a thematic plan; preparation of handouts and didactic material of environmental content, educational tasks for monitoring and evaluating students' knowledge, differential tasks; drawing up a technological map of the lesson to establish effective use of time.

Innovative pedagogical technologies used in the classroom in teaching ecology in combination with natural sciences the issue of environmental content is chosen according to the form of organization of cognitive activity of students, which is organized on the basis of assignments:

1. The use of conference communication, creative play, game exercises, and didactic game technology in cases where environmental learning tasks are reproductively productive.

2. The use of problematic educational technology of brainstorming, conflict of thoughts in cases where environmental learning tasks are productive and creative. 3. The use of an individually functioning modular program of modular learning technology in cases where environmental learning tasks are of a reproductive, productive and partially research nature.

4. The use of collaborative learning technology is established in cases where educational assignments with environmental content are reproductive, productive, partially research and practical in nature.

The socio–economic reforms carried out in our republic require a broad development of spiritual and moral directions. Because this democratic humanism is an important factor in building a society. There is a continuity in the national education system in our country. In particular, the large-scale formation of a global environmental problem today, not only among adults, formulating and explaining it even in elementary grades, but also the spiritual and moral education of students, as well as the widespread introduction of interdisciplinary interaction into the educational process, becoming a harmonious generation has become important. Environmental education of primary school students The purpose of interdisciplinary environmental education is to teach them to know nature and protect it, to form interdisciplinary theoretical knowledge, practical skills related to environmental education. An analysis of the interdisciplinary formation of concepts about

environmental education among schoolchildren shows that. Recommendations:

1. Special attention should be paid to the formation of interdisciplinary ecological thinking in the formation of interest in nature knowledge among younger schoolchildren. To do this, when forming interdisciplinary ecological thinking, it is necessary to know not only the natural science curriculum, but also other academic subjects, including reading, mother tongue, mathematics, and to carry out their horizontal and vertical connections. 2. The development of theoretical foundations for the formation of students' ecological thinking in extracurricular activities in primary schools and the widespread dissemination of flour among younger schoolchildren.

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