

# FORMATION OF STUDENTS' ECOLOGICAL THINKING IN THE TEACHING OF NATURAL SCIENCES IN PRIMARY GRADES

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## **ABSTRACT**

In the article, the content of the formation of views on ecology in elementary school students, its forms and methods, theoretical and practical importance, positive attitudes and views on ecology in elementary school students, and the introduction of scientific sources about the relationship between human activity and nature given.

**Key words and concepts**: natural resource, primary class, ecological environment, exhaustible and non-exhaustible resource, education, need, form, method, use, heritage, source, teaching, nature, attitude, explanation.

## INTRODUCTION

Humanity has been trying to organize its living conditions at a high level since ancient times. In this regard, he used his opportunities to a unique level. In some cases, it is necessary to use natural resources. Natural resources serve to satisfy human needs. With the growth of human needs, the demand for the protection of natural resources and their rational use has increased. Using nature, changing it and protecting nature are closely related processes. The current main tasks of nature protection are rational use of natural resources, introduction of waste-free production, protection of the environment from pollution, prediction of negative changes and their prevention.

The development of society and human life depend on various natural resources. Natural resources include all natural, material bodies necessary for human life and economic activity. Natural resources always serve the needs of mankind. That is why it is necessary to treat natural resources properly. Knowing the essence of natural resources is necessary for their rational use. Water and air are finite resources in terms of quality. Only certain populations of plants and animals can be restored. Mineral resources are not recovered.

In natural science works such as "Treatise on Human Organs" and "A Word on Animal Organs", the structure, characteristics and functions of some human and animal organs, as well as their similarities and differences, are presented, basic



anatomical and physiological concepts are given. The characteristics of their mental state are also discussed.

## THE MAIN PART

In the process of teaching natural sciences, it is appropriate to give information about exhaustible and non-exhaustible natural resources to primary school students. Exhaustible resources are also divided into two parts: non-renewable and renewable resources. So, in the minds of students, it is necessary to have a careful and positive attitude towards all the blessings of nature.

World ocean resources, atmospheric air, Antarctic natural resources, outer space, migratory animals are global resources. Their use and protection is carried out only with the help of international agreements.

Formation of students' understanding of atmospheric air protection is of great educational value. The atmosphere is the air cover of the Earth and is one of the main sources of life in the biosphere. The atmosphere protects all living things from harmful cosmic rays and keeps the heat on the planet's surface. The most dangerous atmospheric pollution is radioactive pollution. Strong air pollution has a negative effect on human health and all living things. Elementary school students are shown that air pollution is harmful to human health.

In forming the concept of "environmental protection" among students, it is necessary to explain the essence and importance of the concept of "water protection". All available water on Earth forms the hydrosphere. The hydrosphere includes the ocean, rivers, lakes, seas, groundwater and glaciers. Earth's water crust is understood. Water is an inexhaustible resource, and water reserves are constantly being replenished due to circulation. Despite the fact that water on earth is an inexhaustible resource, the amount of fresh water consumed is relatively small. It is emphasized that the wise saying "Water is the source of life" was not spoken in vain in our wise nation. Students are reminded that even a drop of water is water. 97.2% of all water in the hydrosphere corresponds to salt water. Most of the available fresh water consists of glaciers (2.8 percent). Fresh water reserves under the ground make up only 1.7 percent.

Soil protection plays an important role in environmental protection. The fertile top layer of the earth's surface is called soil. The importance of soil in the life of nature and society is extremely incomparable. After all, it is a living environment for living organisms, a source of food, it plays an important role in the biological and geological circulation of substances. Nowadays, it is a very sad situation that in many places the soils become excessively saline, and the human factor is involved in the formation of this process.



Plants and animals are the main components of the Earth's life shell - the biosphere, and occupy a special place among natural resources. Plants are the basis of life on Earth. There are more than 500 thousand plant species on our planet.

The just and proactive actions of our country's president, the ability to foresee the future, and effective decisions also serve for the flourishing of our nature. All regions of our country are being turned into green areas. Therefore, forests are important for people to enjoy clean air. The largest part of biosphere biomass is accumulated in forests. All components of the forest biocenosis are interconnected and interconnected with the environment. Unique animal and plant species are concentrated in the forests. Medicinal plants also play an important role in human life. In cities, green plants clean the air, give aesthetic pleasure, and protect the fields from the wind.

Despite the fact that animals make up 2 percent of the biomass, they play an important role in the exchange of substances and other processes in the biosphere. The number of identified animal species in the biosphere exceeds 2 million. Animal world has served as an important factor in human history. For humans, animals are a food product, a source of raw materials, a source of improvement of domestic animal breeds and a source of aesthetic pleasure.

All biological species on Earth are necessary and occupy a specific ecological space. The more colorful the organisms in ecosystems, the stronger their resistance to external influences. The Republic of Uzbekistan has its own flora and fauna. In recent years, as a result of human economic activity, the negative impact on flora and fauna has increased.

10-12% of the more than 4,000 plant species in Uzbekistan need protection. Forest resources are limited and reforestation efforts are not fully meeting the demand. The area of the most valuable mountain forests has decreased dozens of times. The condition of natural pastures has deteriorated and their area has decreased to 6.5 million hectares. The "Red Book" of Uzbekistan includes 163 species of 400 plants that must be protected. There are many types of medicinal plants in Uzbekistan, and most of them are currently in need of protection. 301 plant and 126 animal species were included in the "Red Book" of Uzbekistan, republished in 1995, of which 63 are vertebrates, 5 are fish, 31 are birds, 22 are mammals, 5 are consisting of reptiles.

It is of great importance to inculcate the ecological heritage left by Central Asian thinkers into the minds of children, to arm them with ecological knowledge, as well as to form moral-aesthetic, rational ecological behavior towards nature, skills, ecological thinking and the ability to actively fight for ecology. That's why, as we have already mentioned, it is necessary to acquire knowledge, concepts, active practical activities,

skills and abilities in educational categories such as environmental culture, nature aesthetics, nature and human relations, and to make them conscious. acquires important educational and educational value.

After all, nature protection is a universal problem today, and its origin is due to the unconscious transition of people's moral-aesthetic relationship to nature, unplanned change of its reserves, and the weakness of patriotic feelings towards mother nature.

Natural science classes allow studying and analyzing curricula, programs, methodological developments, textbooks:

The formation of the ecological ideas of Central Asian thinkers in the minds of students is not fully implemented in the course of the lesson;

opportunities for internal motivation, which play an important role in the student's environmental behavior, are not fully used in the natural sciences class;

under the influence of the environment, the use of ecological ideas of Central Asian thinkers, extracurricular opportunities are being neglected, although they are the most effective way to activate students' spiritual values and environmental, nature protection activities is the form.

The importance of organizing the educational process of elementary school students in all regions of our republic in accordance with the current state education standards, using the ecological ideas of Central Asian thinkers in natural science lessons, ecological ideas of thinkers on the basis of the increasing importance of the nature protection activities of the educational system, the deep connection of ecological concepts and directions, the importance of forming the spiritual image of students, the lack of theoretical and methodological study of the problem, the environmental heritage of Central Asian thinkers in natural science classes caused the need to conduct research on education and upbringing of students under the influence of the environment.

The following were taken into account in order to ensure the practical level of attitude of primary school students to the current environmental situation during the organization of positive formation of their views on ecology:

the organization of the process of teaching natural sciences in the integrity of the psychological, pedagogical, organizational, process parts of ecological views that affect the student's motivational, evaluation, creative activity-oriented (practical) aspects; enriching the educational content with Central Asian thinkers' conclusions on ecology, environmental information, nature observation, study materials;

explaining to students the moral and educational nature of ecological knowledge.



Qualities that help to develop the ecological values and active action-oriented aspects manifested in the thinking and behavior of elementary school students help to organize their direct communication with nature.

Primary school teachers of general education schools do not effectively use the ecological heritage of Central Asian thinkers in science lessons, as a result of which students are not aware of them, this situation is characterized by a number of reasons. This conclusion, in turn, requires the determination of measures to achieve effective use of the ecological heritage of Central Asian thinkers in the organization of "Natural Science" classes in the 3rd-4th grades. At the end of forming students' views on ecology, the following recommendations were developed that serve this purpose:

creation of conditions necessary for elementary school teachers to read and study the works of Central Asian thinkers and to learn as much as possible the ecological views advanced in them;

on the basis of the organization of special pedagogical studies among primary school teachers, to establish the study of the ecological heritage of Central Asian thinkers and to create a system of these views;

to encourage them to use the ecological heritage of Central Asian thinkers in natural science lessons by organizing an interregional inspection - competition among primary school teachers;

mastering the skills and abilities of using the ecological heritage of Central Asian thinkers in natural science lessons based on observing the lessons of elementary school teachers with many years of pedagogical experience;

development of measures for promotion of Central Asian thinkers on the scale of the ecological Republic in natural science classes by elementary school teachers using the expert evaluation method.

In the next stages, special attention was paid to establishing experimental and testing works and determining their effectiveness in accordance with the above-mentioned scientific-methodical recommendations.

## CONCLUSIONS

Therefore, observing the natural science lessons organized in the 3rd-4th grades of general education schools, studying the activities of primary school teachers, effectively inculcating the ecological heritage of Central Asian thinkers into the content of educational materials in a continuous and consistent manner. status is not observed. This requires primary school teachers to inform the minds of students about the information about their ecological heritage, to form skills and competencies in them to be able to apply these views in the educational process.



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