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LAYING THE FOUNDATIONS OF THE THEORY AND METHODOLOGY OF TEACHING ECOLOGY

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Annotation

This article provides information from the study of the sources of formation of the theory and methodology of teaching ecology. Including, feedback specific to topics such as the theory of teaching ecology, methodology, environmental education, the state of the environment serves to highlight the content of the article.

Keyword: ecology teaching theory, ecology teaching methodology, environmental education, continuity of knowledge, science, science and education, effectiveness of environmental education.

Humanity has accumulated a great deal of experience throughout its existence, the transfer of which from generation to generation ensures the continuity of knowledge. The area of human activity that concentrates, systematizes and generalizes knowledge is science. Scientific knowledge is the main content of Education. As you know, science is in constant development. New facts lead to a reassessment of existing ideas, and old concepts and theories are replaced by new ones. The continuity of science can only be achieved with a high level of Education. For this reason, science and education are closely related. On the one hand, the development of science is possible only with high-quality education, and on the other hand, the level of development of science determines the quality of education itself. Then the state of the environment depends on the results of environmental education.

The effectiveness of environmental education is largely determined by the readiness of specialists and teachers in teaching ecology for professional activities, which means the ability to solve professional tasks and problems that arise in the real conditions of the educational process. Professional competence of an environmental teacher is based on the synthesis of acquired environmental, pedagogical and methodological knowledge, skills and qualifications necessary for solving professional problems. Those educated in educational institutions first study environmental and Pedagogical Sciences, and then the theory and methodology of teaching ecology.

This is not accidental, because – the theory and methodology of teaching Ecology is formed when the content of the educational science-above all, at the intersection of Ecology, pedagogy and psychology. Currently, environmental problems have a serious impact on all areas of people's lives: science and production, politics and economics, energy, urban planning, health and education. Ecology provides a methodological basis for predicting the consequences of intervention in natural systems, synthesizing scientific knowledge and social experience,

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studying the possibilities of Science and practice for the rational solution of environmental problems. Ecology is a special phenomenon of modern science. It exhibits generalization scales that are only achieved in a few areas of knowledge. Knowledge in the field of ecology is extremely diverse and multifaceted. From specific information about the practice of using nature to philosophical and ideological generalizations that reveal the laws of the interaction of society and nature. The generalizing nature of the results, the important methodological and theoretical foundations of Ecology put it at the center of the integration of scientific knowledge. Currently, the boundaries of Environmental Science have expanded significantly, covering social ecology, philosophy of Ecology, philosophy of socioecology and anthropoecology, ecological ethics and aesthetics, pedagogical and professional ecology.

Modern ecology is a complex system of interdependent Sciences. At the present stage of development, the boundaries of ecology have expanded from the study of the system of "organism-environment" to the system of "society-biosphere". Environmental knowledge is differentiated according to the following criteria:

- 1. Organisms by species (microbial ecology, animal ecology, plant ecology, human ecology).
- 2. According to the totality of environmental species and environmental conditions (steppe ecology, forest ecology, marine ecology, etc.
- 3. By types of interaction between organisms (Autecology, dedemecology, Synecology).
- 4. According to the organizational levels of living life (cell ecology, individ ecology, population ecology, community ecology).
- 5. Ecology of the environment (urban ecology, agrochemistry, engineering, industrial ecology) by types of anthropogenic impact on nature.

Ecology it is a future-oriented science, based on the principle that future values are not inferior to current values. The simultaneous development of common environmental and private environmental concepts determines the complexity of the structure and content of science. Ecology is the most important source of scientific worldview, and the world is perceived in the process of scientific cognition and in the process of Education. Ecology has a significant impact on the entire educational system, manifests itself in the reorientation of educational goals and updating its content, and serves as a source of environmental education for students. Hence, the theory and methodology of teaching ecology is inextricably linked with the science of Ecology. Environmental Science constitutes the content of environmental education, while environmental research methods are largely reflected in the educational and scientific activities of the recipients. At the same time, the content of environmental education is not an abridged copy of the science of ecology, since it should include only the most important, pedagogically adapted environmental facts, concepts, laws and laws, taking into account the age characteristics of educators.

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