

TEACHING METHODS AND PROBLEMS OF THE SUBJECT "BIOLOGY"

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Abstract. The goal of biological education at the current stage is to prepare a biologically and environmentally literate person who must understand the meaning of life as the highest value. Modern man, regardless of what type of activity he chooses for himself in the future, must be able to build his relationship with nature based on respect for humans and the environment. He must have an ecological culture and be well versed not only in biological, but also in areas of knowledge bordering on it. To do this, you need to know biological terms, concepts, theories and be sure to possess the skills of their practical application in various fields. In this regard, the problems of modern school and biology in particular today are integral to the problems and life of society.

Keywords: learning, biology, modern technologies, teaching problems, patterns of development, rational methods.

INTRODUCTION

Methods of teaching biology as an academic subject are of paramount importance for the preparation of a biology teacher. During the learning process, students' professional knowledge and skills are formed, and they master the ability to teach. The educational subject does not contain all the knowledge accumulated by science in the course of research, but only its basics. They are specially selected taking into account the learning objectives, age and background of students. Unlike science, the main function of an academic subject is educational. The academic subject integrates everything that is productive and reconsiders individual problems [1].

MATERIALS AND METHODS

The professional training of a future specialist is built in accordance with the teacher's profессиogram, which characterizes his main functions (informational, developmental, orientational, mobilization, constructive, communicative, organizational and research), which represent a model of specialist qualification training [2].

The methodology for teaching biology examines the content of the educational process in this subject and the patterns of assimilation of biological material by schoolchildren.

Methods of teaching biology is the science of the system of the process of teaching and upbringing, determined by the characteristics of the school subject.

Science is a field of research aimed at obtaining new knowledge about objects and phenomena. The methodology develops rational methods, means and forms of teaching for students to acquire knowledge in biology and the ability to apply them in practice, to form a scientific worldview and understand the value of life.

RESULTS AND DISCUSSION

The methodology for teaching biology is based on pedagogical principles common to all school subjects in relation to the study of biological material. At the same time, it integrates special (natural science and biological), psychological, pedagogical, ideological, cultural and other professional and pedagogical knowledge, skills and attitudes [3].

The methodology for teaching biology determines the goals of education, the content of the subject "Biology" and the principles of its selection. Methodists believe that the formation of a target component of modern school biological education depends on the value system that is determined [4]:

- level of education, characterizing the system of worldviews, beliefs, attitude towards the surrounding world, nature, society, personality;

- the level of development of the student, which determines his abilities, the need for self-development and improvement of physical and mental qualities.

The goal of general secondary biological education is determined taking into account these values and factors such as:

- integrity of the human personality;
- continuity in the system of continuous education.

The methodology for teaching biology also notes that one of the most important goals of biological education is the formation in schoolchildren of a scientific worldview based on the integrity and unity of nature, its systemic and level construction, diversity, and the unity of man and nature. School biology is also focused on developing knowledge about the structure and functioning of biological systems, about the sustainable development of nature and society in their interaction.

Among the main objectives of the methodology of teaching biology as a science are the following [4]:

- determining the role of the subject of biology in the general system of education and upbringing of schoolchildren;
- development of proposals for the preparation and improvement of school programs and textbooks and testing of these proposals in practice at school;
- development and testing in practice of the equipment of the educational process: organization of the classroom, a corner of wildlife, a school educational and experimental site, the presence of wildlife objects, educational visual aids, work equipment, etc.

The object of study of biology teaching methods is the educational process associated with the subject "Biology". Science involves knowledge about the subject of study. The subject of the research methodology is the goals and content of the educational process, methods, means and forms of teaching, education and development of students.

In the development of science, a fairly significant role belongs to methods of scientific research. The leading methods of teaching biology are as follows:

- 1) empirical – observation, pedagogical experiment, modeling, forecasting, testing, qualitative and quantitative analysis of pedagogical achievements;
- 2) theoretical knowledge - systematization, integration, differentiation, abstraction, idealization, system analysis, comparison, generalization.

Building a theory of teaching biology at school requires a combination of empirical and theoretical knowledge.

CONCLUSION

Based on the above, I believe that:

Reducing hours in biology is unacceptable;

The "merger" of biology with other natural sciences (geography, chemistry, physics and astronomy) is unacceptable;

Biology should be studied at school throughout all years of study as an independent subject;

The teaching of the subject should be progressive, high-quality, at a higher, modern level;

The transfer of knowledge must be carried out with the active participation of students; this requires the creation of clear, unified textbooks, teaching aids, program development, laboratory work and seminars.

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