

A. Y. Ydyrys

METHODS OF TEACHING BIOLOGY

Educational-methodical manual



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A. Y. Ydyrys

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Reviewer

Doctor of biological sciences, Professor *M.S. Kurmanbaeva*

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This Book opens bases of a technique of teaching biology as one of branches of pedagogical sciences. In it from modern positions the purposes of biological education, the changes happening in its contents and structure, means, methods and forms of optimum training of pupils are stated. The educational-methodical manual includes nine chapters in which both classical methodical provisions, and new are reflected approaches to teaching biology. They disclose aspects of the personal focused, humanitarian, valuable and culturological approaches to the organization of educational process. The contents of the educational-methodical manual are constructed in such a way that allows the teacher of biology to understand problems of teaching a subject – to be able to prove the choice of programs, to define their merits and demerits, to select forms, methods and tutorials, to create thematic plans, etc.

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INTRODUCTION

The main requirement for the subject of teaching biology – training of high-level of professional biology teacher.

The purpose of this course is the walls of the school with a degree in biology education and high-level biology teachers prepare to meet the state educational standards. In this regard, the education of pupils for each teacher creates a route to the goals and objectives of education, personal development, and education in the future. As a result of the development of the course, every each pupil do the extracurricular work in the field of biology, at first to study the create of a preliminary model (models), every each pupil in accordance with the level of psycho-physiological age, have the ability to implement measures beyond the class and should learn how to organize it; effective and acceptable methods depending on the purpose and content of the training material by selecting the best to meet the needs of pupils in accordance with the age and model (conveniently) of the methods, education, development of effective use of the integrated teaching aids; the educational process, training on a regular basis, with day-to-day analysis of numerical search, and the ability to improve their professional skills.

Method of teaching biology – science about system of process of the training and education caused by features of a school subject.

The science is the sphere of research activity directed to obtaining new knowledge of objects and the phenomena. The science includes knowledge of a studying subject, it main problem – to learn him more stoutly and more deeply. The main function of science – a research. An object of research of a technique of training of biology are the theory and practice of training, education and development of pupils in this subject.

The method as science is faced by problems of detection of regularities of process of training of biology.

The main signs of science, as a general rule, are the purposes, a subject of its studying, methods of knowledge and a form of expression of knowledge (in the form of fundamental scientific provisions, the principles, laws, regularities, theories and the facts, terms). Also the history of formation and development of science, names of the scientists who enriched it with the opening matter.

Method of teaching biology determines the education purposes, content of the subject «Biology» and the principles of its selection.

The education purposes along with content, process and result of education is an important element of any pedagogical system.

Methodologists consider that forming of a target component of modern biological school education depends on a value system that is determined by education level, good breeding level, level of development of the pupil.

The purpose of general secondary biological education is determined taking into account the called values and such factors as integrity of the human person, a prognostication, succession in system of life-long education.

Among the main objectives there are techniques of training of biology as sciences can be allocated the following: 1) determination of a role of a subject of biology; 2) development of offers on creation and enhancement of school programs and textbooks; 3) determination of content of a subject; 4) development of methods and acceptances, and also organizational forms of education of school pupils; 5) development and check in practice of equipment of educational process.

Object and subject of research – the most important concepts of any science.

Object of a research of a technique of training of biology – the teaching and educational (educational) process connected with this subject. A subject of research of a technique are the purposes and content of educational process, methods, means and forms of education, education and development of pupils.

In development of science, its practical application and assessment of achievements rather essential role belongs to methods of scientific research. The following conducting biology training me-

thods: observation, pedagogical experiment, modeling, forecasting, testing, high quality and quantitative analysis of pedagogical achievements.

In method of teaching biology, practically all theories are formulated with a support on a natural pedagogical experiment, approbation of the ideas in mass practice of training, in a close combination of empirical and theoretical knowledge.

Nowadays method of teaching biology in the scientific baggage has a number of such important theories as «Development of biological concepts», «System of forms of education of biology», «Development of system of ecological concepts is aware of biology», etc.

This book briefly described the history and current issues of biological education. The basic methods of teaching biology are considered, their advantages and disadvantages are described. At the end of each chapter, students were answered questions of self-assessment. At the end of the book, test questions are given on methods of teaching general biology. The test tasks are based on individual research of development and biological education of students' logical thinking.

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