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THE ACHIEVEMENTS OF BIOLOGY IN THE FIELD OF SCIENCE AND THEIR APPLICATION IN THE EDUCATIONAL SYSTEM

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Annotation: The article focuses on the prospects of teaching biology, biotechnology and the achievements of science. The development of Science, the discoveries made in many branches of science, science requires its wide application in the educational system, it is desirable to highlight the achievements of Science in recent years in the process of teaching general biology in secondary schools.

Keywords: biotechnology, biology, pathology, gene engineering,ICT

Introduction

It is known that the development of Science, the discoveries made in many branches of science, requires a wide application of science data in the educational system. Science is part of human activity and is an expression from the dressing and systematization of the object of knowledge about existence. This is the basis of the activity, the collection of data and their procurement is always updating and systematizing. The teacher is the creator of the educational process, the creator of educational and educational connotations through which the students pass. The main figurehead of the reformation of pedagogical education is considered. The main professional quality of the educator in the currently developing environment is to show his students the ability to learn to read at all times, that is, he should be able to show his mobility in relation to changes, the qualities of independence and responsibility in decision-making. This can be achieved by expanding the pedagogical creative atmosphere in order to acquire valuable properties. On the basis of this, in order to create a favorable educational environment in pedagogical educational organizations, it is necessary to carry out systematic reviews in the development and realization of educational programs, organization and conduct of training sessions, control over the effective conduct of training

sessions. In order to carry out these processes, it is necessary that pedagogical science has modern concepts and has the skills of working with information and communication technologies.

To date, Biotechnology from the directions of biology has been developing rapidly on the basis of integration of other sciences. This is a practical direction, it appeared at the intersection of biology and technical direction, and is the leading science branch in many states, mankind is involved in solving global problems and industrial problems. Biotechnology is taught in the senior classes of many institutions of higher learning and secondary schools and is of strong interest to students[1].

In recent years, among many disciplines, innovative discoveries have been made in the field of fundamental biology and medicine until the end of the 20th century to the present day of the 21st century, and these achievements have been used in the prevention and treatment of many pathological conditions in medicine. Including the winners of the Nobel Prize in the field of Physiology and medicine for the last five years William Campbell in 2015 year, the creation of new methods of combating parasitic roundworms from the sides of the Satoshi Omura, the creation of new methods of combating malaria by Tu Yuyu, the opening of autophagy processes by Yosinori Osumi in 2016 year, the works made in the field of opening and giving, Tasuku Hondzyo in 2018, James Ellison, in cancer therapy, the treatment by inhibiting the negative management of the immune system , William Kelin, Peter Retkliff, Gregg were highly appraised and rewarded for his work on the sensitivity and adhesion of cells to the supply of oxygen from the sides of the Semenza in 2019. Today, as a result of the high speed development of Information Technology in developed countries and the penetration of innovative technologies into various spheres of society, the medical stability on earth, in the Society of mankind is changing and causing problems before the spheres of fundamental biology and medical science. In the fields of science of fundamental biology of the XX century, many factors affecting the homeostasis of the organism were studied in the fields associated with medicine. These include the influence of natural, physical and chemical factors on the various functional systems of the body and their molecular mechanisms, the development, modification of pathological conditions and methods of their treatment, the

emergence of various pathogens, radiation from physical factors affecting the stagnation of homeostasis cases in the body, etc. Another one of the biggest problems is the frequency of Tumor Diseases and their types, the origin of the disease, which are encountered in the organism [2].

During this period, on the basis of high temp, the field of protection of plants in modern biological methods, the creation of bioenergetics and biodegradable polymers, and the field of biotechnology that protects nature, is rapidly developing. Scientific research work on the creation of new biopolymers has been carried out, and in the night these polymers are replaced by plastics. Modern biotechnology affects the change in the qualitative indicators of human life and leads to the economic growth of states. On the basis of the field of biotechnology, new tools, vaccines, feed products and medicines are developed, which are used in diagnostic studies for medicine. In addition, the field of Biotechnology helps to increase the yield of bug'doy cults, is topical, given the increasing number of axioms currently in use [4].

Biomass resources that occupy many areas in some states do not use tulips, and in the near future, from the point of view of Biotechnology, these areas are used in obtaining biological resources as a rare resource. At the end of the XXI century, at the beginning of the XXI century, the proect of the “human genome” was carried out, great work was carried out on the human genome. As a result of these studies, human personality identification technologies have been created and implemented. Currently, research work on the correction of DNA fragments in the genome is being carried out. Another medical project is the treatment of burn parts on the basis of the cells of the core, skin regeneration occurred for several days when the burn skin parts were sent to the cells of the core. And genetic repair-this direction is one of the directions that is developing today and is expected to be widely used in medicine at night.

These above-mentioned considerations are one of the main problems in the application of pedagogical technologies, lighting in educational programs on the introduction of the achievements of today's science into the general educational system. In this regard, it is worthwhile to highlight the achievements in science in recent years in the process of teaching general biology in secondary schools in general.

It is known that today the coronavirus infection threatens the fate of millions of people all over the planet.According to the latest data, according to 2020 year 20 April, the number of people infected with coronavirus is about 2 million, and the letal cases make up 6% of those infected (Worldometers). On March 11, 2020, the World Health Organization declared the coronavirus infection as a pandemic[3]. In 188 states, in order to prevent the spread of viruses for prophylaxis, a decision was made to close temporary educational institutions [5]. The mass of rapidly adopted activities is extensive, according to UNESCO, which covers 90% of students studying on earth and includes more than 1,5 billion people. made up the person. In Uzbekistan, rapid effective measures were taken to prevent the complications of COVID-19, timely cessation of the activities of educational organizations, and the transmission of systematic lessons via TV was organized, and lesson activities were carried out through online resources.The basis of a qualitative lesson is of course an interactive lesson relationship with students, and this relationship can only be established through online lessons.

Today, the methods and tools of modern information technology create great opportunities in the preparation of didactic materials. Firstly, less time is spent on the preparation of didactic materials, which saves the teacher's time, and secondly – the opportunity to perform and use didactic materials prepared with the help of information technology not only in the form of paper, but also with the help of a computer, mobile phone, tablet or other similar type of electronic tool.

The creation of the necessary materials for the lesson in secondary schools using ICT can not fully fulfill the quality of the lesson. To do this, it is necessary to effectively use electronic textbooks as well as multimedea works in the lesson. For example, the level of mastering of students will be higher if they use the electronic textbook of the subject when passing on the topic” general knowledge of the human body". Because in the electronic textbook, information is given about natural and artificial factors that adversely affect the body, ranging from the cellular structure of the human body. After the reader perceives the electronic textbook with his eyes and ears, he becomes convinced of the extent to which the structure of his organism protects himself in factors that negatively affect his organism.The tools and techniques of information technology make it interesting, aesthetically appealing,

serving for the acquisition of knowledge, the preparation of problematic materials and, therefore, the opportunity to increase the interest in students in their studies. [6]

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