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Integration of Sciences (Chemistry, Physics And Biology) in the Formation of a Natural-Scientific Worldview in Students

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Abstract: this article highlights the purpose of the integration of Sciences (Chemistry, Biology and physics)in the formation of a natural-scientific worldview in students, the peculiarities of the mutual integration of these sciences and their significance.

Keywords: integration of Natural Sciences, integralization of Chemistry, Biology and physics, formation of a natural-scientific worldview.

Introduction. The advantages and importance of the implementation of the integration of natural (SCINCE)Sciences is that through science, the reader understands the universe as a whole, inseparable, one whole, a scientific worldview is formed, research skills are developed. As a result, the possibility of successful participation in international studies such as PISA (international Student Assessment Program), TIMSS (international study of assessment in mathematics and Natural Sciences)will expand.

Chemistry as a science of the most ancient and historically developed natural-scientific content, the connection with the likes of biology, geology, astronomy, physiology, ecology, physics, geography is a didactic necessity (Scheme 1). In order to achieve this connection in a general way, comprehensive knowledge is sorted from different areas of Natural Science. So, with the introduction to the study of the above subjects, it is necessary to carry out a link aimed at preparing a biology teacher. It is known that although the science of chemistry was formed over the past centuries after the ancient world, neither physics nor biology would have developed without its help.

Many opinions have been expressed about the natural-scientific worldview, unfortunately, physical chauvinism and biological reductionism have reached the point of destroying chemistry from both sides [1, 65]. While physicists say that chemistry is a science embedded in our bosom in its fields, that chemistry can live as a single field of physics, biologists assert that the chemical form of matter motion has become a component of it in the way of omixta to the biological form [2, 59]. It is known that although the science of chemistry was formed over the past centuries after the ancient world, neither physics nor biology would have developed without its help.

Many opinions have been expressed about the natural-scientific worldview, unfortunately, physical chauvinism and biological reductionism have reached the point of destroying chemistry from both sides [1, 65]. While physicists say that chemistry is a science embedded in our bosom in its fields, that chemistry can live as a single field of physics, biologists assert that the chemical form of matter motion has become a component of it in the way of omixta to the biological form [2, 59]. The relationship of chemistry with biology has reached its modern level by complementing each other, perfecting visions of matter and its structure, from the ancient world to the Stone Age, The Bronze Age, The Iron Age, and finally, until it reaches its present civilization [3, 76-83]. It is no secret that the interaction of chemists and biologists gave rise to Universal inventions and discoveries.

The head of the metabolism of matter and energy in living organisms, the mechanism of the exchange of di - and tricarbonic acids, the lemon acid cycle, realized the center of the main metabolite exchanges and made a discovery in the field of Physiology and medicine in 1953 and was awarded the Nobel Prize in chemistry.Krebs ' work is an example. The necessity of chemical knowledge for biologists to correctly visualize the universe is an absolute truth. Everything in biology and the fundamental essence of the phenomenon cannot be reduced without a chemical Foundation and without chemical factors. For this reason, the scientific cooperation of chemists and biologists should be interpreted in the form of an extremely necessary phenomenon, both from a scientific, pedagogical and socio-humanitarian point of view.

Main part. The relationship of chemistry with biology has reached its modern level by complementing each other, perfecting visions of matter and its structure, from the ancient world to the Stone Age, The Bronze Age, The Iron Age, and finally, until it reaches its present civilization [3, 76-83].

It is also necessary to establish the harmonization of chemistry in teaching with the discipline theory, psychology and methods of private teaching, economic and socio-political and humanitarian disciplines. The teaching of chemistry and biology is an important zveno in the structure of the problems of the continuing education system of the Republic of Uzbekistan.

The nearest blood-sister Sciences in the Natural Sciences column are chemistry and biology:

1.All representatives of the biosphere have a chemical composition, which cannot be interpreted without chemical interpretation.

2.Chemical changes form the basis of biological processes. Modern biological knowledge cannot be given without knowing the place of chemical reactions in living systems.

3.Without physical postulates and laws, chemistry cannot be fully trained.

4.Chemistry cannot be completed in the hands of physicists and biologists, so physicists and biologists who do not know Chemistry do not have complete ideas about Matter and their changes.

5.Information about proteins, nucleic acids, lipids, carbohydrates and minerals can only be given to biologists by chemists.

6.While physicists make judgments from subatomic physics to macrouniverse representatives, within their dialectical framework, chemists have their own voice [4,31-34].

7.The dominance of chemical processes in the cooperation of chemistry and biology should also be reflected in the system of Continuing Education [5, 7]. 8.Physicists and biologists do not have their own voice on the stage of science without the help of chemistry. While chemists give physicists information about atoms and ions, radicals and molecules, coordination and chelating compounds and isotopes and isobars, biologists are given the chemical elemental composition of representatives of living matter, the composition and structure of vital molecules, the change of

substances and energy exchange mechanisms, assimilation and dissimilation(anabolism and catabolism), synthesis, destruction and regeneration of proteins and other biological molecules, biosynthesis and breakdown of, they give all the information about the changes in plastic and energy substances in the system of vitality, about the chemical details of all substances that provide vital processes.

Analysis of the school state educational standards (DTS) and educational content in chemistry, biology and Physical Sciences shows that there is a system of concepts common to them: 1) substance and its constituent elements; 2) phenomena and processes and elementary units of substances involved in them; 3) material units that ensure the interaction of inanimate and living nature. In teaching chemistry, biology and physics, we consider that it is advisable to conduct interdisciplinary communication in the following areas: 1) the structure of substances common to these sciences and the mechanism of the phenomenon and process in which they participate; 2) the commonality in the essence of the laws in this Science Foundation; 3) chemistry harmony of genius theories to biology and physics; 4) the use of knowledge from chemistry in explaining biochemical processes; 5) the use of knowledge from biology in the formation of chemistry and Environmental Protection and environmental perceptions; 6) the use of methods used in these subjects in chemistry and biology classes. We find it necessary to characterize interdisciplinary engagement in three directions on the same topic: a) chemistry, the formulation of fundamental concepts that biology has in common for metaphysics; b) formation of basic chemical concepts; C) the formation of the most important biological concepts. In the teaching of Chemistry,Biology and physics, where natural science is a network of Three Kings, three types of interdisciplinary communication should be distinguished: 1) the totality of scientific facts, theories, laws and concepts; 2) proportionality of the scientific methods used; 3) the fact that mental activity has a general character in mastering these disciplines.

From the second half of the 20th century to the present day, it is necessary to take into account the peculiarities of the intensively developing science of Biology in the teaching of chemistry, of course: 1. The science of life and the biosphere, the flower of the objective world, is that biology is the doctrine of the exchange of matter and energy with living organisms, the environment that surrounds them, the assimilation and dissimilarity of substances in vital processes, that is, anabolism and catabolism. 2. Advances in biology have led to the formation of new and current fields such as biotechnology, microbiological synthesis, cell and genitalia, molecular biology, biochemical gengetics, DNA analysis, artificial and genetic cloning, and the application to the practice of scientific and social fields. 3. Due to the fact that today's perfection of biology is a historical product of human intelligence, it is necessary to solve a positive solution to global issues such as the problems of food, health and energy of all spheres of human society and to take into account the fact that this science serves as an advantage in private cases such as prolonging human life

Conclusion. The necessity of Chemistry for them to correctly imagine the universe by inextricably linking it with the sciences of biology, physics, geography is absolute truth. Thanks to the integration of Natural Sciences, it gives students the opportunity to form a natural-scientific worldview. Everything in biology and the fundamental essence of the phenomenon cannot be reduced without a chemical Foundation and without chemical factors. For this reason, the scientific cooperation of chemists and biologists should be interpreted in the form of an extremely necessary phenomenon, both from a scientific, pedagogical and socio-humanitarian point of view.

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