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MASTERY OF GENERAL CHEMISTRY IN STUDENTS ON THE BASIS OF INFORMATION MODELS IS THE PROCESS OF FORMATION OF SKILLS

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A B S T R A C T	K E Y W O R D S
In this article, there is an opinion that students should consider chemical reactions and processes that are generalized from general chemistry as their own characteristics. That is, it is shown that the generalization and mastery of each formed skill is based on a certain rule.	student, general chemistry, generalization, skill, educational, marked, information model.

Introduction

It is based on the mastery of the activity structure for the implementation of generalized skills based on conscious actions that form the semantic structure of the skill formed as a whole education in a new way.

In particular, if we think about generalized chemical skills, it is characterized by the fact that students fully and independently perform all actions and actions as part of the skill of learning chemistry, establish connections between them, perform them in standard and non-standard educational conditions. The process of mastering general chemistry skills includes three levels: they are aimed at forming the completeness of work, generalization and awareness. If they are formed, it will be possible to say about the presence of such qualities as efficiency, consistency in students.

The analysis of teachers' practical activities shows that the process of teaching individual actions and movements is difficult. Determining the composition of actions that make up the movement for skill development is a prerequisite for choosing a rational methodology and technology. Knowing the composition of the actions, the teacher determines the most reasonable sequence of practicing the skill of performing each simple action, and then implements the formation of the skill of performing the action as a whole. By understanding the scientific basis of performing individual actions and actions in general, students quickly acquire these types of skills. When studying a process or phenomenon, it is impossible to "break it down" to its simple elementary formations, because they no longer contain the specific quality to be studied. In order to facilitate the analysis, it is necessary to keep in mind the need to simplify the phenomenon under study and preserve its main features. A sufficient unit of analysis is the action that presupposes the presence of motive and purpose. If we choose simple procedural learning as a unit, the data obtained as a result of the analysis does not reflect the existing important features of the studied phenomenon – activity.

For example, the semantic structure of the activity of drawing up the equations of ion exchange reactions includes the main activities: 1. Determination of whether the substance belongs to the class of electrolytes or non-electrolytes. 2. Writing equations of electrolytic dissociation reactions. 3. Covers such as writing ion exchange reactions. Each action includes actions, in particular, action actions for determining whether a substance belongs to the class of electrolytes or non-electrolytes:
1.1 Determination of the type of chemical bond in compounds according to their molecular formula;
1.1.1 Covalent polar bond;
1.1.2 Ionic bonding;
1.2 Determination of the molecular formula of a substance belonging to one class;
1.2.1 Acids;
1.2.2 Basics;
1.2.3 Salts;
1.3 Determining the solubility of a substance according to the solubility table;
1.3.1 Soluble;
1.3.2 Insoluble.
The addition of minor steps, including the identification of ionic compounds in the molecular formula, is not necessary, meaning that it no longer includes important elements of the activity of classifying substances as electrolytes or non-electrolytes. Actions in the activity system are defined as actions that are minimal in terms of the content of the subject, in which it is also possible to determine the structural conditions of the activity being formed. All functional components in the semantic structure of the activity are located in the "preparation - implementation" relationship. One or another functional component can be considered the main part, and then its components should be considered a preparatory part; on the other hand, the same functional component is a preparatory part for the next component. The relationship "preparation - implementation" is an interrelated feature of the activity process throughout the process. The result of the estimated action is to receive the subject of the executive action; the result of the latter is to consider some of the structural states of the first movement of the main component.
In this regard, the formation of activities for the implementation of the skill of determining whether a substance belongs to the class of electrolytes or non-electrolytes is a preparation for the formation of activities for the implementation of the skill of drawing up the equations of electrolytic dissociation reactions, which in turn is the preparation for the implementation of the skills of drawing up the equations of ion exchange reactions.
Knowledge and skills on this topic in general secondary education schools: can master or understand: chemical symbols: symbols of chemical elements, formulas of chemical substances and equations of chemical reactions; the most important chemical concepts: atom, molecule, ion, chemical bond, substance, classification of substances, chemical reaction, electrolyte and non-electrolyte, electrolytic dissociation; is to form the law of conservation of mass of substances.
Development of knowledge and skills in the subject at the basic level: know or understand the theory of electrolytic dissociation. They should be able to: name the studied substances according to the "early" or international nomenclature; determining the charge of the ion, the nature of the environment in aqueous solutions of inorganic compounds; describe the general chemical properties of the main classes of inorganic and organic compounds; explain the dependence of the properties of substances on their composition and structure.

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