

## IMPROVING CHEMISTRY TEACHING BASED ON COMPUTER TECHNOLOGIES

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## Abstract

One of the modern teaching tools is computer tools, which have been used most in educational processes in recent years. It is widely used in the preparation of virtual laboratories, in the representation of problem situations through various animations and multimedia, in the representation of various tables, graphs, systems. In order for computer tools to be highly effective in educational processes, they should have a certain methodological basis. It is very important to take into account the characteristics of the topics, the level of complexity, the quality of the presented materials and the level of authenticity. For this reason, it is necessary to begin to perform the defined tasks based on a deep analysis of these issues.

A specialist must have a high level of training to prepare animation and multimedia, virtual laboratories. First of all, it is necessary to know his field thoroughly and have high computer literacy. Usually, a wide range of specialists are involved in performing such tasks.

In today's era of rapid introduction of new technical tools into teaching, including computers and other information technologies, the use of computers in the organization of lesson processes and independent work of students expands scientific research in this field.

Most of the hard-to-imagine chapters in chemistry have both pictures and text in their electronic versions. And this is no different from the book. Chapter topics like these need to be visualized in order to understand them. For this, in addition to hearing and reading, it is necessary to see. Currently, electronic resources for the use of modern pedagogic and new information technologies in teaching subjects of the higher education system are not fully developed. Creation of methodical bases of use of information technologies, especially computer tools , in theoretical and practical, laboratory training is considered to be an urgent problem.



## Website:



In the present era, when new technical tools, including computers and other information technologies, are rapidly entering teaching, the use of computers in the effective organization of students' educational activities is one of the urgent issues.[1].

Special and general learning skills are formed by the correct application of various methods and techniques. In this, the use of modern technical means of teaching is particularly effective [2].

Technical means of teaching (TME) is the use of various lighting techniques, sound devices and manuals in the course of the lesson. In order to effectively use OTV during the lesson, special psychological-pedagogical, methodical and technical training is required from the chemistry teacher [3].

The use of computer technology in educational institutions opens wide opportunities for optimization of the teaching process. The use of computer programs ensures the realization of such principles as scientificity, demonstrability, comprehensibility, activeness and independence in teaching [4].

Computer programs not only help to build knowledge and skills, but also develop students' creative abilities while working on a computer. In this case, computer programs serve as a means of supplementing the basic educational material or increasing the effectiveness of teaching.

The chemistry teacher is required to explain the educational material and teach students to work independently. Based on this requirement, chemistry teaching methods are divided into 2:

1) Statement reach methods .

2) Musta q ilworkmethods .

Education in institutions the most many p applied methods :

1. Of the teacherstudy material statement reach method , in this speaking giving , lectures , conversations , excursions , demonstrations experiences and should be shown of teaching another from tools use  $\_$ 

2. Musta  $\_$  work laboratory methods works , practical training , chemistry  $\_$  issues solve and literature with work  $\_$ 

Below given in pictures one how many experiences execution on the surface animations appearance \_ given . Chemistry in the courses basically laboratory training sessions perform in methodological manuals on only text in the form of experience perform sequences given .





Figure 2. of carbon oxygenated compounds taken and properties





Like this from animations students experience from doing before this experiences fulfillment to the sequence suitable respectively prepared animations to see through process about more perfect to the imagination have will be From this except some poisonous substances and reactive and equipment in its deficiency with held \_\_ Experiments and animations through demonstration to be done student and in students of the process chemical mechanisms more to their mastery possibility creates \_\_ High education institution students inorganic chemistry from science laboratory training sessions organize in reaching from animations use teaching efficiency to increase service does \_\_

## References

1. Guzeev, V. V. Obrazovatelnaya technology kak nauchnaya distsiplina / V. V. Guzeev // Chemistry and school. - 2002. - #4. - S. 51-56.

2. Amirova, A. X. Uchebnye videofilmy na urokax khimii / A. X. Amirova // Chemistry and school. - 2002. - #7. - S. 37-40.

3. Drijun , I. L. Технические средства обучения в химии: uchebnoeposobiedlyaped . Vuzov / I. L. Drijun . - M.: Vyssh . Shk ., 1989. - 175 p.: il.

4. Nazarova, T. S. Prinsip naglyadnosti i sredstva obucheniya / T. S. Nazarova // Chemistry: teaching method in school. - 2001. - #2. - S. 10-15.

5. Karimova, Dilovar, and Yulduzxon Karimova. "KIMYO FANINI O'QITISHDA KEYS TEXNOLOGIYASIDAN FOYDALANISH." Interpretation and researches 1.1 (2023).

6. Sheraliyevna, Toyiraxon Amirova, and Karimova Dilovar Batirovna. "STUDY OF THE CHEMICAL COMPOSITION OF MARGILAN NATURAL SILK FABRIC." Journal of Pharmaceutical Negative Results (2022): 6525-6531.

7. Мелибоева Г.С.. "ДИДАКТИЧЕСКИЕ ИГРЫ КАК СПОСОБ ПОВЫШЕНИЯ ЭФФЕКТИВНОСТИ В ОБУЧЕНИИ ХИМИИ" Экономика и социум, по. 3-1 (106), 2023, pp. 408-412.

8. Xikmatullayev, I. (2023). PHYSALIS ANGULATA O'SIMLIGI VITAMIN TARKIBI TAXLILI. Theoretical and Experimental Chemistry and Modern Problems of Chemical Technology, 1(01). Retrieved from https://ojs.qarshidu.uz/index.php/ch/article/view/74.

