ETHIOPIAN INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY RESEARCH

eISSN: 2349-5715 pISSN: 2349-5707

Volume: 10, Issue 11, Nov-2023 SJIF 2019: 4.702 2020: 4.737 2021: 5.071 2022: 4.919 2023: 6.980

REVIEW OF SOME EFFECTIVE METHODS OF TEACHING CHEMISTRY

Kazakov Rafikjon Nabijon O'g'li
Andijan State University , Uzbekistan

Abstract: Chemistry lessons are illustrated and illustrated using computer technology, multimedia elements, and pedagogical teaching methods. At the same time, it is said that such activities help students develop their intellectual abilities.
Keywords:computer technology, multimedia, problem-based learning technology, metals, learning.

INTRODUCTION: For non-chemistry majors, the goal of chemistry education is for students to master the basics of chemistry and learn to understand the environment from a chemical perspective. Students develop their intellectual abilities by observing, understanding, experimenting, measuring, comparing and contrasting, analyzing, synthesizing, etc. Chemistry education is aimed at developing the intelligence of students, logical, figurative, theoretical and other information means ensures the implementation of such learning principles as scientific character, visibility, accessibility, activity and independence. The most effective forms of presentation of educational material include multimedia presentations.

MATERIALS AND METHODS: The presentation of educational material in the form of a multimedia presentation reduces the time of learning, frees up the resources of the health of young people, allows you to build an educational process based on psychologically correct modes of functioning of attention, memory, mental activity, and pedagogical interactions, building the learning process from the standpoint of integrity [3].

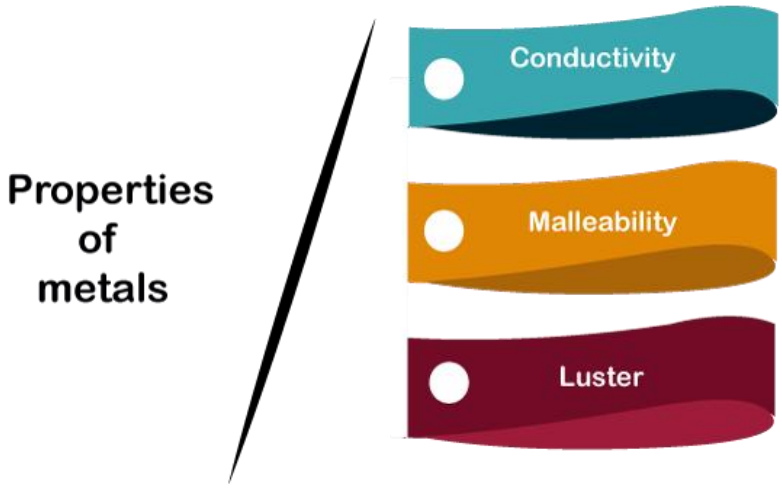
I believe that the use of presentations is advisable at any stage of studying the topic and at any stage of the lesson: when explaining new material, consolidating, repeating, controlling. At the same time, the presentation performs various functions: a teacher, a working tool, a learning object, a collaborating group or subgroup [4].

When using multimedia presentations in the process of explaining a new topic, a linear sequence of frames is sufficient, in which the most advantageous moments of the topic can be shown. Definitions and diagrams can also appear on the screen, which the guys write off in a notebook (if there are technical capabilities, a brief summary of the presentation content can be printed out for each student), while the teacher, without wasting time on repetition, manages to tell more. In my practice, I use multimedia presentation notes created specifically for specific classes, containing a short text, in the 1st course of the topic “Metals and their properties”, the explanation of the new material is accompanied by a multimedia presentation consisting of slides that define the basic concepts (electrical conductivity, plasticity , metallic luster, etc.), there are schemes for classifying metals according to various indicators, static and dynamic images of metals, and a video clip showing the formation of a metallic bond [6].

RESULTS AND DISCUSSION: Classes for consolidating, generalizing and systematizing knowledge are classes that require the teacher to constantly pay attention to the answers of students in order to deeply understand the topic (or section) by students. The use for this presentation can occur in different ways. You can display problematic issues on the screen and gradually come to their solution with the whole class, you can create a game situation using illustrative material [7]. Problem-based learning permeates the entire course of chemistry. In addition, the study of chemistry is accompanied by the creation of problem situations in the classroom and the formulation of problematic questions. Practically, the study of the entire topic is based on putting forward hypotheses, creating problematic situations, posing problematic questions and searching for answers to these questions, ways to resolve problematic situations [4].

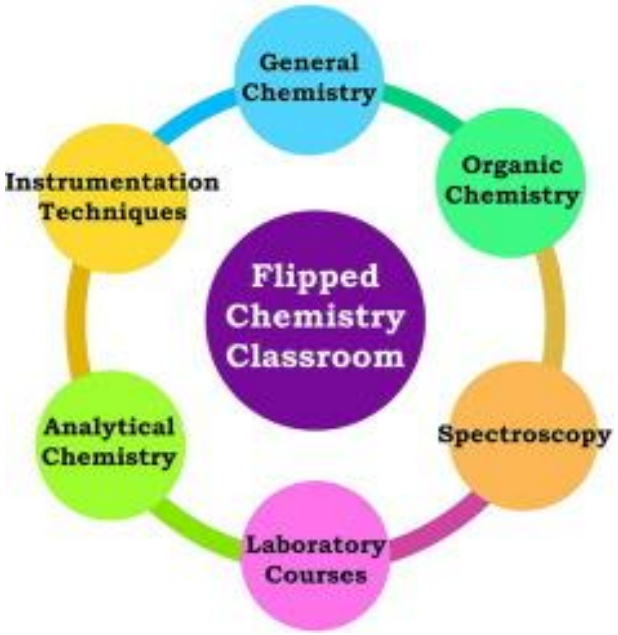
eISSN: 2349-5715 pISSN: 2349-5707

Volume: 10, Issue 11, Nov-2023 SJIF 2019: 4.702 2020: 4.737 2021: 5.071 2022: 4.919 2023: 6.980



After such classes, the studied material remains in the memory of students as a vivid image and helps the teacher to stimulate the student's cognitive activity [3].

If it is necessary to show models (molecules, atomic structure, structure of crystal lattices), processes (mechanisms, signs of reactions, the course of reactions, dissolution of substances, the phenomenon of hybridization, dissociation, etc.). For example, at the first stages of studying organic chemistry, the difficulty is the spatial structure of molecules [5]. The drawings in the textbook are flat, two-dimensional. The spatial image has to be thought out, imagined.



The use of computer presentations in the classroom makes teaching chemistry more meaningful, interesting, emotional, visual, and effective. The presentation organically fits into the structure of the lesson, accompanying the lecture[5].

CONCLUSION:I use various forms of work with ICT when conducting classes to study new material, control knowledge, skills, repetition and generalization. To demonstrate complex experiments, I used not only presentations created by myself.

I use ICT in the classroom:

- a lesson in the study of new material "Chemical bond",

“Water in nature. Properties of water", "Water hardness"

- a general lesson on the topic "Classes of inorganic substances",

eISSN: 2349-5715 pISSN: 2349-5707

Volume: 10, Issue 11, Nov-2023 SJIF 2019: 4.702 2020: 4.737 2021: 5.071 2022: 4.919 2023: 6.980

«Chemical kinetics. Chemical balance»

- Extra-curricular activity "Nitrates: harm or benefit?", "Mineral fertilizers"

Classes with the use of ICT allow diversifying the forms of studying and controlling knowledge, increase the amount of material considered, arouse interest among students, and develop communication skills. ICT helps to make classes more interesting, meaningful, holistic, modern.

REFERENCES:

1. Kruglikov V. N., Platonov E. V., Sharanov Yu. A. Methods of activation of cognitive activity. S.-Pb.: Knowledge, 2006.
2. Dendeber S.V., Klyuchnikova O.V. Modern technologies in the process of teaching chemistry. Developmental learning, problem-based learning, project-based learning, cooperation in learning, computer technology. M.: 5 knowledge, 2007.
3. Bogomolova O.V. On the organization of project activities of students. Journal Chemistry at school.2008. #2
4. Badalova S.I., Komilov K.U. Intellectual training of students of technical institute.// Academic Research in Educational Sciences. 2020 Vol. 1 no. one.
5. Yadgarov B., Komilov K.U. Applying ICT for improvement general chemical education// Society and innovations. 2021. №4. Page 257-261.
6. Atqiyayeva S. I., Komilov K. U. Developing intellectual capabilities of students in teaching chemistry// International scientific and educational electronic journal "Education and science in the XXI century". 2021. No. 10. Page 684-692.
7. Allaev J. The use of student-centered learning in chemistry classes / Proceedings of the international conference. Problems of modern continuous education: Proceedings of the International scientific conference on innovations and prospects. T., 2019. volume 1. Pp. 366.