

## IMPROVING THE METHODOLOGY OF TEACHING THE TOPIC OF NONMETAL OF THE 8TH GRADE IN THE E-LEARNING ENVIRONMENT

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### ABSTRACT

*The use of pedagogical technologies in the process of teaching chemistry has a positive effect on the effectiveness of teaching. Pedagogical technologies can be applied to the process of teaching these subjects in order to increase the level of students' knowledge and increase their interest in the lesson in the process of teaching halogens in inorganic chemistry.*

**KEYWORDS:** *Pedagogical Technologies, Halogens, Expressing Hypotheses, Identifying Problems.*

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### INTRODUCTION

Application of the case-study method of education in the study of various situations is an educational process aimed at organizing the study of typical situations taken from life or requiring learners to search for appropriate solutions to relevant problems based on artificially created situations. This method allows learners to model their practical activities on diagnosing the life situation related to the subject, expressing hypotheses, identifying problems, collecting additional information, clarifying hypotheses and solving problems, and designing specific stages of their implementation. The use of cases dedicated to specific life situations connects the educational process with real life. In case studies, learners create a learning process. In the process of interaction, their real exchange of ideas occurs. A case gives learners the freedom to analyze, compare, and problem solve. The use of various innovative technologies in teaching the subject of halogens in inorganic chemistry increases students' interest in the lesson. It is recommended to give the following "Case Assignments" on the topic.

Case Statement: It is derived from the Greek word meaning "destroyer". When hot water is directed to the surface, it catches fire and burns with a light purple flame. This phenomenon is the only reaction in which oxygen occurs as a product of combustion rather than as a burner



**Case Assignment:** Explain what kind of element we are talking about, its chemical properties.

Case Statement: .... the name was given for its smell, which means "smelly" and "stinky" in Greek. It occurs in nature only in the form of compounds. It is difficult to find a person in life who has not used his services, that is, everyone takes photographs, and photography cannot exist without him. Photo plates, films, photo papers are covered with a thin film of gelatin and its silver salt.



**Keys topshirig'i:** Qanday element haqida gap ketyapti, kimyoviy xossalarini tushintiring.

O'quvchilar tomonidan keys topshirig'i ma'lumot asosida tayyorlanadi. Darsda muammoli ta'lim texnologiyalarga kiruvchi Keys topshiriqlari asosida o'quvchilar bilimini baholash mumkin. O'quvchilarning galogenlar haqidagi bilimlarini yanada oshirib, tasavvurini kengaytiradi. Kimyoviy element, birikmalari, olinishi va kimyoviy xossalarini, ularning formulalarini to'g'ri o'z o'rnida yozishni, shu orqali, anorganik moddalar kimyoviy tarkibini yaxshi tushunishadi.

The method of working in small groups is a creative collaborative work in the lesson aimed at finding a solution to a specific problem and increasing student activity.

Steps:

- Divide into groups
- Discuss the problem in groups
- Presentation of solutions to the problem
- Conclusion.

For example: "Halogens and their properties" topic.

The lesson is organized by working in small groups. Working in small groups develops their communication and teamwork skills. By studying halogens and their properties, students learn the practical importance of halogens.



In modern pedagogy, a person's analysis of his activities, actions and their results (self-evaluation) is called reflection. Reflection helps students to evaluate their educational activities and their results. creates a basis for determining the purpose of educational activities and making corrections to them. In this respect, it can be used to evaluate the results of the lesson. Reflection tasks include:

- Diagnostic assessment tasks
- Organizational tasks
- Motivation task
- Transmission function

There are different ways of conducting reflection. For example:

1. From today's lesson, I learned \_\_\_\_\_, understood \_\_\_\_\_, acquired \_\_\_\_\_ skills.

I especially liked \_\_\_\_\_s;

After class, I do \_\_\_\_\_;

During the lesson, I was interested in \_\_\_\_\_;

It was difficult for me to understand \_\_\_\_\_ during the lesson;

I learned from the lesson:

Now I will learn \_\_\_\_\_s.

2. Reflection is carried out.

1. I studied..... because.....

2. In class, I.....

3. I felt ..... in class.

4. The lesson is for me .....

5. My mood.....

6. The purpose of the lesson was .....

3. Reflection is carried out.



I learned,



I learned,



I liked,



I was in trouble,



my mood

4. Reflection is conducted.

Fill in the self-assessment sheet (use the "+", "-" signs)

1. I know the difference between metals and non-metals

2. I can explain why the division of chemical elements into 2 groups: metals and non-metals is incomplete

3. I can name the alkali metals and explain why they belong to the same natural family

4. I know how to make equations of chemical reactions of interaction of alkali metals with water

5. I can give examples of halogens and explain why they belong to the same family.

6. Reflection is held.

Did you learn each of them in today's lesson?

What concepts did you learn in the lesson?

Have there been any misunderstandings?

Were we able to resolve these misunderstandings during the lesson?

Share the most successful answers of your friends.

Give yourself and others advice on what to work on.

What else would you like to do and what would you like to do differently?

Therefore, the main purpose of modern technologies is to activate the learning process of students of the educational group, to develop their scientific and creative abilities by solving existing problem situations. Also, technology is an educational technology that teaches students to use their knowledge, skills and abilities in cooperation, to search for an alternative solution by analyzing the proposed solutions.

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