



WAYS OF ENVIRONMENTAL EDUCATION AND UPBRINGING IN THE STUDY OF CHEMISTRY

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Аннотация: для экологического образования и экологического воспитания в химии необходимо использовать определенные вопросы экологического характера. Они служат важным инструментом в организации уроков для будущих учителей химии.

Annotation: for environmental education and environmental education in Chemistry, some environmental issues should be used appropriately. They serve as an excellent tool in organizing classes for future chemistry teachers.

Ключевые слова: экологические знания, экологическая культура, экологическое воспитание, экологическое сознание, окружающая среда, химия, загрязнение воздуха.

Keywords: environmental knowledge, ecological culture, environmental education, environmental consciousness, science, chemistry, pollution of air.

One of the main tasks is to bring the relationship between nature and society into balance in the current period, when the problems of Ecology and nature protection have become acute and become extremely controversial. The problem of connection between nature, man, Society has also changed its attitude to nature at different stages of its eternal development. Dealing with nature with responsibility is one of the main goals of environmental education to maintain self-discipline in nature and to improve environmental conditions. Lack of environmental knowledge or environmental illiteracy can sometimes have dire consequences. Therefore, in the process of providing students and students with various knowledge, it is necessary to strengthen external activation and their creative activity. In Chemistry Lessons, environmental education and upbringing can be carried out in every lesson. In this case, it is desirable to carry out the use of local materials based on the content of each lesson. When the subject of carbon and its compounds is studied, knowledge about the effect of carbon on the environment of hydrogen and oxygen compounds is given. The fact that the atmospheric air is heavily polluted by various man-made emissions is one of the problems in the world. Within these, CO₂ gas occupies the main place. As a result of man-made pollution, more than 22 billion tons of CO₂ gas are released into the atmosphere per year. On Earth, plants produce 1.2*10¹⁰ tons of O₂, absorbing 5*10¹⁰ tons of CO₂ per year. Over the next century, there is a significant increase in the amount of this gas. As a result of the double increase in CO₂, it is estimated that in the lower layers of atmospheric air, the average khavo rate rises to 2-4 CO₂. The above environmental knowledge is given to students when the subject of carbon is studied, on the basis of which it is possible to achieve the

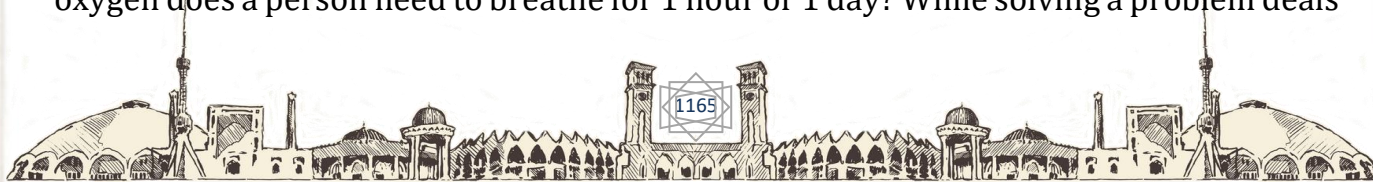




formation of environmental education and ecological culture. Also, environmental education elements such as saving and investigating various fuels, not wasting natural gas sources, not burning various plant residues are given. When the subject of organic compounds is studied, the effect of organic compounds on the external fan is explained, as well as a system of knowledge on related environmental problems. At the same time, the use of natural materials i.e. the composition of natural and satellite gases on the topic of natural sources of hydrocarbons and their processing, as well as their economic economy are studied, the attention of readers will be paid to the regions where there are deposits of natural gases in the territory of Uzbekistan. Uzbekistan has noyon fuel, energy resources, the sought-after gas reserves are about 2 trillion cubic meters. It is possible to answer in a generalized way, relying on the knowledge and economic worldview of students about activating fuels in rational ways. Natural gas is a much cheaper energy raw material than coal, which can be easily delivered to consumers from the place of extraction by main pipelines. It should be noted that methane is preferable to ecological waste compared to other natural sources of energy. The above knowledge is given and the students are instilled with elements of environmental education. In Hayat, for example, it is possible to achieve environmental education by not wasting natural gas in marriage, not draining waste into water, which is typical of various synthetic washing products.

On the topics of corrosion of metals, alloys, metals, environmental knowledge about the influence of metals and their compounds on the environment, pollution of biological sources with heavy metals, the release of 1 kg of Pb per year in one car air negatively affects the human body of heavy metals, the use of saving and investigating metals and their compounds environmental elements such as Greening.

In the process of smelting cast iron and steel on the subject of metallurgy, several different gases are released into the atmosphere. In particular, for the production of 1tonna pig iron, 4.5 kg of dust, 2.7 kg of CO₂, 0.1-0.6 kg of manganese compounds are released into the atmosphere. Also along with CO₂, CO, arsenic, P, S₆, P₆, Hg vapor, HCN and others are separated, although in small quantities. When separating aluminum, which is the basis of non-ferrous metallurgy, by electrolysis, one of the most toxic gases, HF, is released. This gas is toxic, and people around the aluminum factories, in addition to poisoning the hayvans, are very kata damage to agricultural crops. Education and upbringing are concepts that are interconnected and inextricably linked. Just like environmental education and upbringing is a concept that is inextricably linked with each other. Environmental education and upbringing in Chemistry Lessons requires every chemistry teacher to carry out interdisciplinary connections, both from the content of the lesson and from the knowledge of the local conditions and the environmental situation of each region. In this case, the appropriate use of issues related to ecology is important. Below we recommend an issue where knowledge of nature between chemistry and mathematics is aimed at implementing integration. Issue 1. Within a minute, a person absorbs about 250 ml of oxygen by inhalation. How much oxygen does a person need to breathe for 1 hour or 1 day? While solving a problem deals

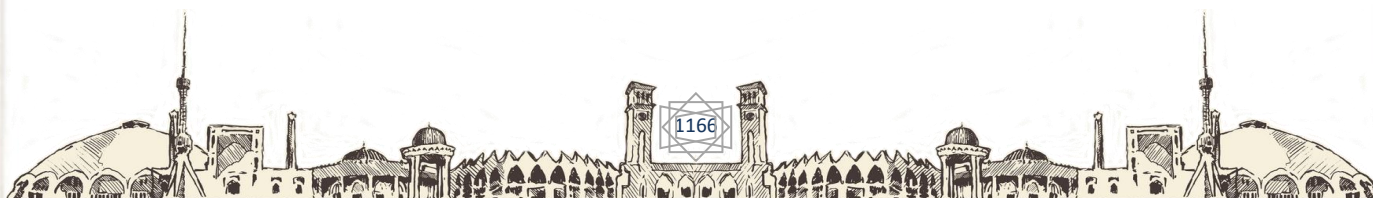




with the quantitative side of a problem, sukhbat is able to find answers to the above questions through free communication (for example, flower reproduction, frequent replacement of air in the classroom, and x.k) causes the development of ecological culture in students. Issue 2. When the car walks at normal speeds, it damages the air less with gases, while when walking at a small speed it emits 3 times more gas. How much damage to air will increase if 3 cars stop in the first gal and 4 cars stop in the second gal to skip the passenger? Environmental education and upbringing to the younger generation is a very complex and long-lasting process. It is a great responsibility of all educators to solve the current, global problem of the present time.

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