FIZIKA DARSLARIDA ATMOSFERANI TOZALASH USULLARINI O'RGANISH METODIKASI

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Annotatsiya:
Ushbu maqolada atmosfera havosining ifloslanishi natijasida yuzaga keladigan muammolarini o'rganishda fizika darslarida ekologik ta'limdan foydalanish usullari bayon etilgan.

Tayanch iboralar: ilmiy texnika taraqqiyoti, fizikaviy ta'sirlar, toza energiya manbalari, fizik-kimyoviy usullar, fizik usullar, fizika fanini o'qitishda ekologik ta'lim.

Аннотация:
В данной статье описаны методы использования экологического образования на уроках физики при изучении проблем загрязнения атмосферного воздуха.

Базовые фразы: прогресс научной техники, физические воздействия, источники чистой энергии, физико-химические методы, физические методы, экологическое воспитание в преподавании физики.

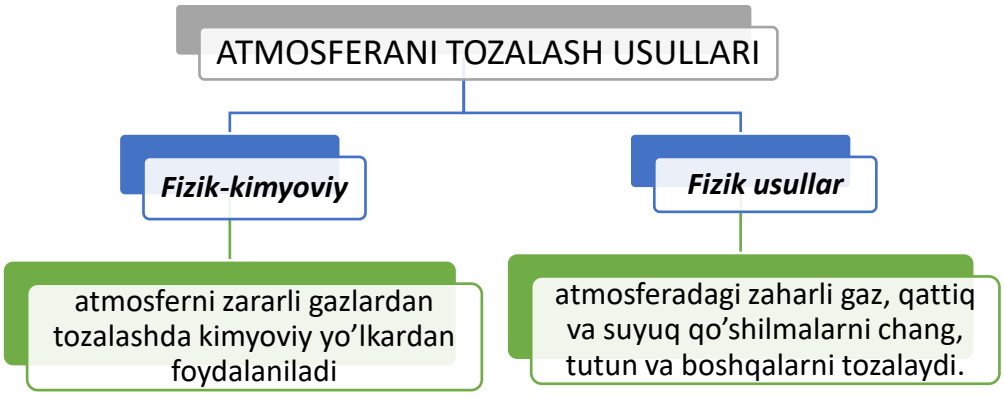
Abstract:
This article describes the methods of using environmental education in physics lessons in the study of problems of atmospheric air pollution.

Basic phrases: progress of scientific technology, physical effects, clean energy sources, physico-chemical methods, physical methods, environmental education in physics teaching.

Ma'lumki, insonlar tabiat ustidan hukmronlik qilib, tabiat ne'matlaridan o'zi hohlagancha foydalanmoqchi bo'ladi va bunga qisman erishdilar ham. Lekin zamonaviy ilmiy texnikaning yuksak darajadagi taraqqiyoti, fizika, kimyo va sanoat ishlab chiqarish korxonalarining to'xtovsiz faoliyati natijasida atmosfera havosining ifloslanishi bugungi kunda eng yuksak cho'qqisiga yetishi natijasida jamiyatda global ekologik muammolar kelib chiqmoqda.
Shundan kelib chiqqan holda uzluksiz ta'limning muhim maqsadlaridan yana biri ekologik ta'lim berishdir. Bu ta'limning asosiy maqsadi, o'quvchilarda tabiat haqidagi to'g'ri tasavvurlarni shakillantirish, tabiatga nisbatan ongli munosabatlarni tarkib toptirish, ularni tabiat boyliklaridan ratsional foydalanish, uni muhofaza qilish, ko'paytirish, kelajak avlodlarga tabiatni ta'biiy holda qoldirish ruhida tarbiyalashdan iborat.
Fizika fanini o'qitishda ham ekolok ta'lim berishning o'ziga xos maqsadlari belgilab qo'yilgan: masalan, "Atmosferada bosim" mavzusini o'rganish davomida har bir o'quvchi atmosfera havosini muhofaza qilishga doir quyidagi ishlarni amalga oshirishi lozim.
- Atmosferaga chiqarilgan chiqindilarni tozalash va zararli fizikaviy ta'sirni kamaytirish maqsadida inshootlar, asbob uskunalar, apparaturalardan, shuningdek, ular ustidan nazorat qilish qoidalariga amal qilish;
- Xo'jalik ob'ektlari atrofida sanitariya - muhofaza zonalarini tashkil etish;

- Chiqindilar chiqarishni va zararli fizikaviy ta'sirlarni kamaytirish usullarini izlash;
- Energiya tejaydigan texnologiyalarni joriy qilish, ekologik jihatdan toza energiya manbalaridan foydalanish;
- Atmosfera havosiga ifloslantiruvchi moddalar va biologik organizmlar chiqarishni kamaytirish yuzasidan tabiatni muhofaza qilish davlat qumitasi tamonidan chiqarilgan chora-tadbirlarning mazmuni bilan tanishish va o'quvchilarga etkazish;
-Sanoat korxonalari va transport vositalarining ta'sir doirasida atrof muhitga hamda aholi salomatligiga zararli ta'sir ko'rsatilishini baholash;
- Chiqindilarni yo'q qilishni ta'minlash hamda ular to'planib qolganda va qayta ishlanayotganida atmosfera havosining ifloslantirishning oldini olish chora tadbirlarini ko'rish kabi masalalarga to'g'ri yondoshishi lozim.

Bugungi kunda atmosferani zararli gaz va zarralardan tozlashda turli xil usullardan foydalanilmoqda. Bular asosan ikkita katta guruhga bo'linadi:



➢ ***Fizik-kimyoviy usullar***: Turli sanoat ob'yektlaridan chiqadigan karbonat angidrid, oltingugurt (1V) oksid, azot (II) oksid fenol va boshqalarning havoni ifloslanishidan saqlashda kimyoviy usullardan foydalanish mumkin. Kimyoviy birikmalardan tarkib topgan filtrlovchi uskunalar yordamida zavod, fabrika va kombinatlardan chqadigan zaharli gazlar tutib qolinadi. Yoki turli katalizator yordamida saqlab turiladi. Sanoatning chiqindi gazlarini katalizatorlar yordamida tozalashning mohiyati shundaki, bunda barcha zararli gazlar boshqa zararsiz birikmaga aylantiriladi va havoga chiqarib yuboriladi.

➢ ***Fizik usullar***: Hozirgi vaqtda sanoat tarmoqlaridan atmosferada iflos gazlarni tozalab chiqarishda turli chang va mayda zarralarni tutib qoladigan oddiy filtrli uskunalardan foydalaniladi. Bu usullar gruppasi arzon energiya hisobiga havodagi juda mayda chang zarralarini quruq holda tutib turadi. Keyingi vaqtlarda iflos gaz va chang qo'shilmalarini elektr filtrlar orqali ushlanib qolinmoqda. Kam elektr energiyasi sarflash oqibatida soatiga millionlab kub metr havo iflos qo'shilmalardan toza bo'lmoqda.

Bu usullarni fizika fanini o'qitish jarayonida ekologik ta'lim berishda o'quvchilarga ma'lumot va axborot sifatida etkazish zarur.

Fizika darslaridagi ekologik ta'limga asoslangan tushunchalr atmosfera havosini muhofaza qilishga oid masalalarni, jumladan:

- Tabiiy changlarga qarshi kurashish;
- Atrof va turar - joylarni ko'kalamzorlashtirish;
- Gigiyenik jihatdan talabga javob beradigan uskunalar foydalanish;

- Texnologik jarayonlar vaqtida quvurlarni mahkam berkitish, ular orqali zaharli gazlar chiqishiga yo'l qo'ymaslik;
- Xom ashyo va reaktiv sifatida foydalaniladigan kimyoviy moddalardan me'yorida foydalanish;
- Korxonalarda ishlab chiqarilayotgan mahsulotlarni qadoqlash va boshqa jarayonlarni avtomatlashtirilishi;
- Texnologik jarayonlarni berk sistemaga o'tkazish, iloji boricha isrofgarchilikka yo'l qo'ymaslik;
- Tozalash inshootlarining samarali ishlash usullarini takomillashtirish kabi masalalar to'g'risida fikrlaydi va o'ylaydilar.

Demak, uzluksiz ta'lim tizimida fizika fanini o'qitish jarayonida ekologik ta'lim va tarbiya tizimini tashkil etish o'quvchilarda ongida tabiatni muhofaza qilish ko'nikmalarini shakillantiradi.

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