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Група № 2Б-1

Thursday, the 8th of February

Classwork

Lesson 18-19

Topic: Nuclear Energy. Hydro Power

Мета уроку: Ознайомити учнів з новою лексикою теми. Вдосконалювати навички усного мовлення та письма. Розвивати культуру спілкування та мовленнєву реакцію учнів.

Матеріал уроку:

1. Прочитайте і запам'ятайте значення наступних слів для кращого розуміння тексту.

demand	вимога
conventional	звичайний
device	механізм
various	різноманітні
processing	переробка
disposal	видалення
to force	змушувати
rapid	швидкий
tide	прилив
benefit	користь
challenge	виклик
existence	існування
prediction	передбачення
cost	ціна

2. Прочитайте і перекладіть текст. Визначте, як можна вирішити проблему нестачі енергетичної сировини.

A very rapid growth of energy consumption has occurred in the twentieth century.

A major problem is that much of the world's energy supply is biased, on fossil fuels. Fossil fuels are limited and their supply is running out. From this it follows that the future of our energy supply must be based on sources other than fossil fuels like coal, oil and natural gas.

Hydroelectric, wind, tidal and solar power require much technological development. New and different sources of energy have to be found and brought into practical use. The problem consists in developing technology to extract energy from nature without causing air, water, thermal or radioactive pollution. The wise use of nuclear energy, based on an understanding of both dangers and benefits, will be required to meet this challenge to our existence.

In the near future about half of electrical supply is expected to come from nuclear sources. There are many factors that will determine the accuracy of this prediction. It is noted that the cost of construction of a nuclear plant is high but the fuel cost is relatively low.

Yet there is considerable confusion in the public mind when comes to

nuclear power plants. There are those who consider it to be a major solution to the world's energy needs. There are opponents with good reason to be critical. In either case we are faced with the rapidly, increasing energy demands of the future.

A nuclear power plant is very much like a conventional steam power plant. The only difference is that the heat used to run the electric generator is not obtained by burning coal, gas or oil but from controlled nuclear reactions.

A nuclear reactor is a device in which these reactions take place.

There are various types of nuclear reactors. All of them operate more or less on the same principle. Yet we always face the fact that the use of nuclear energy requires safe transportation, processing, storage, and disposal of potentially dangerous materials. However the dream of limitless power will force mankind to find solutions to all these problems for the satisfaction of man's needs.

3. Визначте, в якому із значень використовуються наступні слова в тексті.

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| 1. major | майор; мажор; більш важливий; старший |
| 2. to run out | керувати; вибігати; працювати; спливати; виснажувати |
| 3. to extract | видаляти; вичавлювати; видобувати |
| 4. nature | характер; вдача (норов); натура; природа |
| 5. confusion | безлад; плутанина; збентеження |
| 6. reason | розум; причина; доказ; основа |
| 7. case | скриня; футляр; випадок |
| 8. good | добрий; гарний; обґрунтований |
| 9. mind | думка; розум; пам'ять |

4. Розташуйте наступні речення у послідовності викладу в тексті.

1. The present sources of energy and the problems we face.
2. A power plant operating on a nuclear fuel.
3. Nuclear energy and the problems it causes.
4. The present necessity of new energy sources.
5. The factor determining the use of nuclear energy.

5. Дайте відповіді на наступні питання по тексту.

1. Where do nuclear reactions take place?
2. What fossil fuels are used at present?
3. What is the use of nuclear energy based on?
4. What are the energy sources of the future?
5. What happens to the heat generated by a reactor?
6. What is the main problem of our century?
7. Does everybody regard nuclear power a solution to the energy problem?
8. Is a nuclear power plant something radically new?

■ *Уважно прочитайте текст. Зробіть письмовий переклад (Час – 5 хв.).*

In 1963 the greatest known disaster occurred in Northern Italy. A large landslide over a mile long and a mile wide fell down into the reservoir of the dam. In about 30 seconds it completely filled the reservoir and, as a result, a huge wave of displaced water 100 m high was formed and it passed over the dam flooding and destroying everything in its way downstream.

The catastrophe took only a few minutes and the seismic effect caused by this landslide was recorded over a wide area in Europe. In spite of the fact that the water pressure reached millions of tons and, of course, much exceeded the design values the dam withstood it without any damage. This proved once more the structural strength and stability of the arch dam. At the same time this event emphasized the critical importance of thorough geological studies not only of the rock at and near the dam itself but also of surrounding valley slopes.

Усі виконані завдання надсилайте на електронну адресу gr.ev@ukr.net з підписом у темі листа «ПБ, № групи та назва навчальної дисципліни».