

Exercise 1. Read the text, translate It into Ukrainian and answer the following questions:

1. What is the subject of the text? 2. What is science?
3. Do you agree that it is a problem in today's society that science has such a big influence on our lives, but the majority of people who make political decisions do not understand the scientific facts and theories behind political issues?
4. Do we need a greater appreciation for science? Should the media emphasize the positive impacts of science and technology on our lives more than they do at the moment, and do they need to try harder to make their audience understand scientific problems and methods?
5. Will education have to change in the future to increase "scientific literacy"?

Text: The Role of Science in human life

Science is the knowledge about the structure and behavior of the natural and physical world, based on facts that we can **prove**. Science, therefore, is important for the welfare of the world we live in: the better the science the better the world. We are harnessed by the law of the science, the cause and effect. Science has many branches, for example natural science, political science, social science etc. However the core of the science is based on the facts proved **to be right**.

Science has enormous influence on our lives. It provides the basis of much of modern technology - the tools, materials, techniques, and sources of power that make **our** lives and work easier. The discoveries of scientists also help **to shape** our views about ourselves and our place in the universe.

Modern science and technology have changed our lives in many dramatic ways. Airplanes, automobiles, communications satellites, computers, plastics, and television are only a few of the scientific and technological inventions that have transformed human life. Research by nuclear physicists has led to the development of nuclear energy as a source of power. Agricultural scientists have developed better varieties of plants and highly effective fertilizers.

In the natural world, the disasters like cyclones, typhoons, drought, forest fire etc are menacing our dairy life. We can **notice** the danger and can **prepare** for the remedy by using the scientific method **to prevent** them. We can **maintain** the ecological system on the basis of science.

In combating the diseases and promoting the health, science has been playing the important role for the better world. The development of antibiotics and other new drugs has helped to control many infectious diseases. Studies in anatomy and physiology have led to amazing new surgical operations and to the invention of lifesaving machines that can **do** the work of such organs as the lungs, kidneys, and heart. Advanced technology can **make** the Human Genome Project become real. Therefore the life-span of the man becomes longer and longer.

Although scientific and technological achievements have benefited us in many ways, they have also created serious problems. The rapid growth of industrial technology, for instance, has resulted in such grave effects as environmental pollution and fuel shortages. Breakthroughs in nuclear research have led to the development of weapons of mass destruction. Some people fear that biological research will produce new disease-causing bacteria or viruses that resist drugs. People are also concerned that computerized information system may **destroy** personal privacy.

But science itself is neither good nor bad. The uses that people choose **to make** of scientific knowledge determine whether that knowledge will help or harm society. Science and technology are the main causes of the better world in which there are high living standard and improving economic status.

Vocabulary notes:

welfare – condition of having good health, comfortable living and working conditions: **Our only concern is the children's welfare.**

to harness – to control and use the natural force or power of something: **We can harness the power of the wind to generate electricity.**

menace – something or someone that is dangerous: **It's the only way to deal with the menace of drug dealing.**

benefit – an advantage, improvement, or help that you get from something: **We want him to get maximum benefit from the course.**

to determine – to decide firmly, resolve, cause to decide: **The tests will help the scientists determine what approach to use.**

Word combinations to be remembered:

welfare payment — виплата (державної) допомоги

to be on welfare — отримувати допомогу

in harness — пліч-о-пліч, разом, за повсякденною роботою

to run in double harness — бути жонатим, працювати з напарником

to give smb. the benefit of one's experience and knowledge — поділитись і кимось своїм досвідом і знаннями

to reap the benefit of smth. — пожинати плоди чого-л.

to derive / get (a) benefit from smth. — отримати вигоду з чого-л.

for your special benefit — заради вас

to determine a dispute — вирішити суперечку

Demand determines the price. — Попит визначає ціну.

Exercise 2. Give English equivalents of the following words and expressions:

бути важливим для добробуту суспільства; причина та наслідок; суть науки: мати величезний вплив на наше життя; суттєво змінити життя; джерела енергії: загрожувати життю; тривалість життя; зброя масового винищення; бути стійким до ліків.

Exercise 3. Look through the text and fill in the blanks with the proper information.

1. Science is the knowledge about the structure and behavior of the natural and physical world, based on...
2. Science is important for the welfare of the world we live in: the better the science._
3. We are harnessed by the law of the science, the cause ...
4. Science has many branches, for example...
5. Science has enormous influence on...
6. It provides the basis of much of modern technology - the tools, materials, techniques, and purees of power that..
7. Modern science and technology have changed our lives in many ...
8. In combating the diseases and promoting the health, science has been playing .
9. Although scientific and technological achievements have benefited us in many ways, they have also created...
10. The uses that people choose *to make* of scientific knowledge determine whether that knowledge

Exercise 4. Translate the following sentences into English.

1. Наука— форма інтелектуальної діяльності людей, скерована на отримання істинних знань про світ (природу, суспільство, мислення).
2. Наука наділена на відкриття об'єктивних законів світу і передбачення тенденцій його розвитку.
3. Наука — це процес творчої діяльності з отримання нового знання.
4. Відмінністю точних наук є апіорність вихідних положень.
5. Математика і логіка не аналізують емпіричні факти, а використовують аксіоматичний метод.
6. Математика, проте, займає центральне місце в науці, особливо в природознавстві, оскільки надає основи кількісного аналізу фактів.
7. Результати наукових досліджень публікуються в науковій літературі, й, зазвичай, факти публікація вимагає рецензування.
8. Будь-які висновки досліджень і теорії можуть бути відкинуті, якщо з'являються нові факти. що їх заперечують.

Exercise 5. Are the statement true or false?

1. There is a minor difference between the Stone Age man who led a nomadic life and the modern man living in the Age of Science & Technology.
2. In the course of thousands of years, early man made some important discoveries such as making tools producing fire, use of the wheel and knowledge of agriculture and this knowledge made his day to day life happier and more stable.
3. Later, especially during the last four centuries, many inventions were made in different branches of science such as Physiology, Astronomy and Physics and machines and gadgets were developed so that people could use these inventions in their daily life.
4. One of the greatest inventions of the twentieth century is the invention of computers. 5. Computer technology is used for diagnosing of diseases, scientific research, booking plane and railway tickets, maintaining office and other records and many other things.
6. The recently developed Internet has made it very difficult to exchange information.
7. Access to the different websites has made it impossible to obtain up to date information on any subject.
8. Apart from the inventions mentioned above - x-ray technology, robotics, heavy vehicles like tractors, genetic research, development of high quality seed, ultra-modern telecommunication and mobile technology have opened up new horizons for human progress and development.
9. All these facilities should, however, be used without great caution and restraint
10. Otherwise, many problems such as pollution, violence, terrorism, increase in crime, violation of human rights may arise.

Exercise 6. Choose the correct word and fill in the blanks.

(to) benefit(s) beneficial beneficially

1. There is no evidence that the diet pills have any — effect on weight loss.
2. The company provides medical —.
3. The relationship between the two companies has been mutually —.
4. Such simulation models can be used — at all levels of decision-making in an organization.
5. This medicine will act — on you.

(to) determine determined determination

6. How hard the scientists work now will — how they perform in the future project.
7. He was — that the same mistakes would not be repeated,
8. Success requires dogged —, as well as ability.
9. "Web police" are often able — the exact source of unwanted mailings on the Internet.
10. — and hard work led Sanders from poverty to success.

Exercise 7. Translate the following sentences into Ukrainian.

1. Getting people off welfare and into paying jobs is a major national priority.
2. A hybrid type of society emerged, in which archaic social forces were harnessed to modern industrial techniques.
3. We harness fossil energy and breathe life into machines.
4. I had the benefit of a university education.
5. We're just beginning to reap the benefits of all our hard work.
6. Circuits in computers and other control instrumentation can likewise act as unintended receivers, menacing the operation of whole manufacturing plants.
7. We offer an excellent salary and benefits package.
8. What are the benefits for Britain of belonging to the European Union?
9. Cycling is highly beneficial to health and the environment.
10. My proposition, I assure you, would be to our mutual benefit.

Exercise 8. Choose an appropriate heading (A-D) for each text (1-2). Express your attitude to some of the new scientific technologies.

1. The Internet, a global computer network which embraces millions of users all over the world, began in the United States of America in 1969 as a military experiment. It was designed to survive a nuclear war. Information sent over the Internet will take the shortest path available from one computer to another. Owing to the Internet, if some computers on the network are knocked out (by a nuclear explosion, for example), information will just rout around them.
2. Most of people, who have access to the Internet, use the network only for sending and receiving e-mail messages. However, other popular services are available on the Internet: reading USENET News, using the World-Wide Web, telnet, FTP, and Gopher. In many developing countries the Internet may provide businessmen with a reliable alternative to the expensive and unreliable telecommunication systems of those countries. Some American banks and companies even conduct transactions over the Internet.

Headings:

- A) The definition, history and advantages of the Internet.
- B) The disadvantages of the Internet
- C) Internet services
- D) How to make money from the Internet?