

Science and technology

Ex.1. Прочитайте и письменно переведите текст.

In recent years, **scientific and technological developments have drastically changed life** on our planet as well as our **views** both of ourselves as individuals in society and of **the Universe** as a whole.

Today, science and technology **are closely related**. Many modern technologies such as **nuclear power** and **space flights** depend on science and the **application of scientific knowledge and principles**. Each **advance in pure science creates new opportunities** for the development of new ways of making things to be used in daily life. In turn, technology provides science with new and more accurate **instruments for its investigation and research**.

Technology refers to the ways in which people use discoveries to **satisfy needs and desires**, to **alter the environment**, to **improve their lives**. **Throughout human history**, men and women **have invented tools, machines, materials and techniques**, to **make their lives easier**.

Of course, when we speak of technology today, we **are looking at it in a much narrower sense**. Generally, we mean **industrial technology**, or the technology that began about 200 years ago with the **development of power-driven machines, growth of the factory system, and mass production of goods** that **has created the basis for** our modern society. Today we often say that we live in **an age of science and technology**. **According to one estimate**, 90% of all the scientists who ever lived, were alive and active in the 1970-s. This **increased scientific activity** has brought new ideas, processes, and **inventions** in ever-growing amount.

The scientific revolution that began in the 16th century was the first time that science and technology began to work together. Thus, Galileo, who **made revolutionary discoveries** in astronomy and physics, also built an improved telescope and **patented** a system of lifting water. However, it was not until the 19th century that technology truly **was based on science** and **inventors began to build on the work of scientists**. For example, Thomas Edison built on the **early experiments** of Faraday and Henry in his invention of the first practical system of **electrical lighting**. So too, Edison **carried on his investigations** until he found the carbon filament for the **electric bulb** in a **research laboratory**. This was the first true **modern technological research**.

In a sense, the history of science and technology is the history of all humankind.

Ex.2. Ответьте письменно на вопросы:

1. *What proves that science and technology are closely related today?*
2. *What does the term «technology» refer to?*

3. *How is scientific activity in the 1970-ies estimated?*
4. *What facts prove that the scientific revolution of the 16th century was the first time that science and technology began to work together?*
5. *What was the first true modern technological research?*
6. *How can the history of humankind be described?*

Ex.3. Переведите с русского на английский и запишите (или отметьте в тексте) следующие предложения:

1. За последние годы наши взгляды на жизнь на Земле, на человека как личность, на Вселенную резко изменились.
2. Современная техника зависит от достижений в области чистой науки.
3. Техника дает науке более точные инструменты исследования.
4. Развитие науки делает возможным использование открытий для удовлетворения нужд и потребностей человека и улучшения его жизни.
5. На всем протяжении истории человечества люди изобретали инструменты, машины, материалы, технологии и изменяли окружающую среду.
6. Техника в более узком смысле означает промышленную технику, создавшую основу современного общества.
7. Современная техника началась с паровых машин, развития фабричной системы и массового производства товаров.
8. Научная революция, начавшаяся в XVI веке, вызвала появление новых идей, открытий и изобретений.
9. Только в XIX веке техника стала действительно основываться на работах ученых.
10. Первым действительно научно-техническим исследованием было исследование Фарадея.
11. История человеческого общества - это, в некотором смысле, история развития науки и техники.

Ex.4. Придумайте 10 простых предложений с любыми словами или словосочетаниями выделенными в тексте.