

## 12 Vedecko-technický rozvoj - SCIENCE AND TECHNOLOGY :)

### a) Compare life in the past and at present

Science is the systematic and organized inquiry into world's phenomena. Technology is regarded to be a product of science. Science and technology has been developed since the industrial revolution in the 18th century. This development has brought many new inventions to mankind.

At the beginning of the 20th century most people used to travel on foot or by horse-drawn vehicles. Nowadays there is public transport in most towns which include trains, buses and undergrounds. We use cars to get to work and we use planes to travel for long distances.

Scientists have made huge progress in medicine. Doctors could cure only a small part of diseases in the past because they didn't know any medicines for their treatment. Thanks to science and technology doctors are able to treat and cure patients with variety of medicines and medical technologies. Public sanitation has helped to eliminate some lethal - diseases such as tuberculosis or plague. Transplantation of internal organs has extended the lives of sick people.

The only way to view some significant events in the past was only to be there. Today we have television, where the program can be transmitted by satellites. The news will spread as well by radio, newspaper, and internet.

The most discussed topics in microbiology are in vitro fertilization and cloning.

Equipment of houses has changed completely. We use many inventions that make our life easier and more comfortable. Every woman praises washing machine which washes clothes.

There is usually a microwave and a fridge in every household. To other useful appliances in house belong vacuum cleaner and iron.

### b) Remarkable discoveries and inventions

In the past books were written by hand what was very difficult and time - consuming. Guttenberg built the first printing press in 1439.

We can't imagine our life without electricity anymore. We use it especially for lighting and heating. It is produced in power stations by generators and comes into our households via cables.

The telephone enables us to communicate with other people. It was invented by Alexander Graham Bell in 1876.

Television is a recent invention for the public, because we started to use TV in 1950's. It has existed for a longer time as a mean of transmitting pictures. The first television transmissions were made in England in 1926 by John Logie Baird.

Alfred Bernhard Nobel invented dynamite and other explosives. He is known as the founder of the Nobel Prize. It is awarded to scientists and researchers in the field of physics, chemistry, psychology, medicine, literature and peace. The Prize for Economics in Memory of Alfred Nobel was established in 1968. The Peace Prize is presented in Oslo, the other prizes in Stockholm.

### c) Science and technology in usage of human

Computer is the most popular technical invention for many of us. The history of computers started in 1960s when the first electronic computer was introduced. Computers have been changed in size, speed, software and price since then. With the help of computers we were able to improve the way how we live and work and computers have even replaced people in some professions. We can write texts, paint pictures, play games and of course do other different activities. It is advisable to have an access to the internet in order to work more efficiently. Internet was invented by Tim Berners-Lee in 1989. It has changed the way we do business, how we communicate and entertain and how we search for information.

Nuclear physics is another important scientific discipline which deals with the nucleus of the atom. It is also concentrated on nuclear power. We can produce electricity in nuclear power stations. This source of electricity is still very problematic because of dangerous accidents and nuclear radioactive waste.

An important part of modern science is space research. The first satellites were launched into orbit in 1957 and so afterwards the first man - Gagarin was sent in the space. The first man who stepped on the Moon was Neil Armstrong. At present satellites are used for scientific purposes, communication and weather forecasting.

#### **d) Misuse of science and technology**

Everything has its pros and cons. Science and technology can contribute to solving problems on the Earth, f. e. through discovery of alternative sources of energy and development of medicine against such diseases as cancer, AIDS and ebola. On the other hand, there are also inventions and discoveries that can be misused. Ballistic missiles, laser weapons, nuclear bombs are only a few examples of it. Thanks to the development of science people have become lazier. However, people are under stress because they are always in hurry. They don't have any time for sports and even for healthy food. The civilization diseases result from these circumstances.

#### **e) Science and technology in future**

We live in a computer age and there is a computer in nearly every household. One benefit of the computer age is that children are becoming smarter. Children can be interactive learners with computers. They may read, do activities, play educational games and learn. Overall, children can benefit from computers if they are used wisely. Parents that supervise their children when they are on the computer can ensure that everything is happening safely. Children must learn to balance their time on the computer. Too much time spent on the computer can be dangerous for a child. Computers are the wave of the future, but old fashioned learning techniques should not be forgotten. A child needs to interact physically with other people and not learn everything from computers.

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