

Science and Technology

Scientific research has a history of thousands of years. Science has offered many gifts to mankind. Fire was the first discovery and wheel was the first invention. Since that time we have travelled far. Scientists like Albert Einstein and Isaac Newton, and many others have turned the tables of the world. Science had brought great laurels in every field but it has really shone in technology. We have access to some of the most advanced technical inventions. A few centuries ago a mastermind – Leonardo da Vinci made the first blue-print for an aeroplane. Today planes of different modifications are used for many purposes. NASA launched a Space Shuttle called Discovery. Space exploration has become a reality.

Sometimes we ask the question, “What is the most important gift of science?” To my mind **electricity** is a gift of science without which the modern civilization can not survive. If we stop using it, the whole world would come to a standstill. And the most important **devices** of today are the time-measuring device and the computer. A time-measuring device (a clock or a watch) regulates the activities and functionalities of our life – ranging from personal life to communication and transportation. A computer controls both personal and impersonal issues at local and global levels. How chaotic life could result if these two devices stop functioning all of a sudden!

To many people, one of the most famous inventions of the 20th century is the automobile. The greatest car maker of the age is undoubtedly Henry Ford. Today Lamborgini, Masseratti, and Maybachs are packed with newer inventions of the day. These are mechanical devices which have made us a Nano-race.

Engineering on the nano-scale isn't a new thing. Clothes have just got clever with nanotechnology: the materials stay clean, warm, strong and dry.

Nanotechnology is big news in sport. Tennis and golf players, skiers and mountain bikers are already enjoying the advanced technology with lighter, stronger sports equipment.

The displays on everything from [iPods](#) and [cell phones](#) to [flat screen TVs](#) are made from plastic built on the nanoscale.

One of the most exciting areas of nanotechnology is building incredibly small machines from individual atoms. Nanomachines could be made into nanorobots (sometimes called “nanobots”) that could be injected into our bodies to carry out repairs or sent into dangerous environments.

Nanotechnology can be used in the food industry right from field to table. For example, nanomaterials could help keep food fresh for longer. Scientists are already manufacturing nano-sized vitamins that

are easier for our bodies to take in. In the future they hope to create 'interactive' food – food and drink that could change colour, flavour or ingredients on demand.

We have come into a digital age. Computers have given way to laptops and palmtops. Picture-tube televisions have metamorphosed into LCDs and Plasma. Some of us live in smart homes that obviously make life easier and more convenient. Anything in your home that uses [electricity](#) can be put on the [home network](#) and at your command. Whether you give that command by voice, remote control or [computer](#), the home reacts. [Security systems](#) can be built to provide help in an emergency.

The mobiles have turned into a complete island of entertainment and communication.

Internet has made possible many things: online education, communication and other unlimited opportunities. You can visit your distant relatives on the other side of the globe within a day. You can look at an award ceremony held in London. You can put thousand pages of text into a pin size chip and still have plenty of space left.

But some of modern discoveries cause heated debates. One such problem is human cloning. Supporters of human cloning say it could ease pain and prolong life. They also say cloning would expand the boundaries of reproductive choice. Opponents of cloning say that human cloning projects are criminally irresponsible. Nowadays several governments around the world have banned public money being spent on human cloning research.

Society is facing many important decisions about the use of science and technology. These decisions affect the environment, human health, society and international policy. To resolve these issues, and develop principles to help us make decisions we need to involve anthropology, sociology, biology, medicine, religion, psychology, philosophy, and economics; we must combine the scientific rigour of biological data, with the values of religion and philosophy to develop a world-view.

SCIENCE AND TECHNOLOGY, MODERN COMMUNICATIONS

№1

1. *Now let's speak about science. What scientific achievements do you find very important?*

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2. *Would you like to be a scientist? Why (not)?*

Personally I have never thought of being a scientist. It's not my cup of tea. There aren't so many people who have got real talent and passion for science. Reading the biographies of great scientists you understand that almost all of them devoted their lives for science. I think I am not ready for this way of life. And I haven't got passion for it.

3. *Give me some of advice on how to become a good scientist.*

I can recommend for those people who feel inspiration for inventions and discoveries to read the "Letter to Youth" written by Pavlov. Pavlov wrote it not long before his death. Here are some of his thoughts.

First of all – learn the ABC of science before you try to reach its heights. Always study. Develop patience. Never try to escape the hard jobs in science. Study, compare, gather facts.

The second thing is modesty. Never think that you know everything.

The third thing is passion. Remember, science requires your whole life. Science demands of man the greatest effort & supreme passion. Be passionate in your work.

4. *What would you like to know about a new gadget — iPad?*

Some of my classmates have already got iPads, so I've got an idea about it. Probably it would be interesting to know about the latest models.

- What is the model of your iPad?
- Are there any new functions in your iPad?
- What model would you recommend to buy?

5. *Parents think that the internet influences negatively the development of teenagers' thinking skills. Children, on the contrary, believe that it's impossible to imagine our modern world without the Internet. What is your point of view?*

The Internet is a great source of information and entertainment for many people. It has made possible new forms of social interaction and has become a major source of leisure.

Personally, I can't imagine my life without Internet. Thanks to it I have got an opportunity to access news, documents, images, sounds, video and games, to make friends, to book tickets and to purchase different things online. There are a lot of different sites for students, gardeners, businessmen, engineers, for people who are fond of music, cinema, theatre, sports and even for disabled people. What is more, the Internet has revolutionized the way people communicate. Sending electronic text messages is much faster and easier than writing letters. People use e-mail to stay in touch with friends worldwide.

However, internet-addiction is a topical problem nowadays. Spending much time in front of the screen becomes a kind of obsession for many people. The symptoms of internet-addiction include sleep deprivation, decreased physical activity and social interaction with others. People who spend most of their time in the virtual world forget about the real one. They neglect their relatives and ruin their families. Besides, there is a lot of rubbish online and you can't always trust what you read on the web.

To sum up, the Internet becomes dangerous when it is misused. But if it is used wisely and moderately, it helps you work, study or entertain and it saves plenty of time.

№2

1. *Now let's speak about science. What science are you interested in? What makes it special for you?*

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I think all sciences are very interesting. We may not like any subject at school like Physics or Mathematics. But the reason of our dislike doesn't lie in the sphere of science itself. Usually we don't like some subjects because they are difficult for learning and understanding. As for science it's a sphere with a lot of mysterious ideas, questions and phenomena. To my mind our world is interesting in all aspects so it's the question of time to have special interest in this or that sphere of our World.

2. *Would you like to be a scientist? Why (not)?*

See Card 1(2)

3. *What questions would you ask an outstanding scientist?*

It would be a great opportunity to meet such person. So I would ask:

- What helps you to get new ideas?
- How much time is it necessary to understand that you have made a discovery?
- Do you feel envy of your colleagues' success?
- Do you prefer to work alone or with a group of scientists?

4. *Give me a piece of advice on how to convince my parents of the necessity of a mobile phone for every teenager.*

Mobile phones have changed people's life. They give us an opportunity to stay in touch and to be reachable everywhere. Now it's difficult to imagine how people lived without mobile phones in the past.

The mobile phone is a very useful device. Thanks to it, I can access people I need: my parents, my friends and teachers. I can never miss anything important. If I need some help, I just call for help. If I'm late for some reason I may send a message to inform about it. What is more, with the help of my mobile phone I can access the Internet, listen to music and what not. A mobile phone gives us freedom.

5. *Why do you think cloning was banned in some countries?*

Some of modern discoveries cause heated debates. One such problem is human cloning. Supporters of human cloning say it could ease pain and prolong life. They also say cloning would expand the boundaries of reproductive choice. Opponents of cloning say that human cloning projects are criminally irresponsible. That is why nowadays several governments around the world have banned public money being spent on human cloning research.

1. *Now let's speak about science. What is the role of science in our fast-moving world?*

See Card 1(1)

2. *Do you use many gadgets and devices at home? Why (not)?*

Smart homes obviously make life easier and more convenient. Who wouldn't love being able to control lighting, entertainment and temperature from their couch? Whether you're at work or on vacation, the smart home will alert you to what's going on, and [security systems](#) can be built to provide help in an emergency.

Smart homes also provide some energy savings. The devices can go to "sleep" and wake up when commands are given. Electric bills go down when lights are automatically turned off when a person leaves the room.

At present it's almost impossible to imagine our life without automatic, electric and electronic appliances which make the housework so much easier.

We've got at home all modern devices like: a vacuum-cleaner, a washing machine, a fridge, an iron, a coffee-maker, a computer and other stuff which are quite typical in any household.

3. *What questions can you ask about a new high-tech device for music fans?*

- Is it a portable device?
- What is a quality of a sound system in the device?
- Is it possible to connect the device to the computer?

4. *My niece is not very good at science at school. Tell her how to achieve better results.*

First of all I'll recommend not to worry about it, because different people are talented in different spheres. Probably it will be very useful for her to read some popular information in the sphere of Physics or Biology. Maybe, she will be able to find something unusual which will raise her interest.

5. *People are becoming more dependent on high-tech devices. Is it good or bad?*

To my mind it's neither good nor bad. It's our reality. It's impossible to imagine our modern life without high-tech devices. The question of becoming dependent on high-tech devices lies in the sphere of personal attitude towards it. Every person decides himself whether to be reasonable or not.