

UNIT 2 THE IMPORTANCE OF SCIENCE

Discussion points

- Can you remember prominent scientists of the past? the present?
- What are your associations with the scientists of the 21st century?
- Who can be called a true scientist? Has the idea of a “scientist” changed through time?
- Which adjectives in the box do you think go with a true scientist?

hard-working lazy punctual reserved emotional enthusiastic tolerant well-dressed ambitious humorous serious intelligent fun-loving absent-minded

- **Identify the characteristics of a scientist by matching the two columns.**

I 1. intelligent 2. objective 3. creative 4. open-minded 5. curious 6. talented 7. dedicated 8. persistent	a) receptive of arguments and ideas b) remaining at a task for a long amount of time to complete a task or project c) making observations and decisions based upon evidence, not personal opinion or hearsay d) very interested in working very hard, devoting a lot of time to complete a task or project e) producing new and original ideas and things, inventive f) having a high degree of mental capacity g) having or showing special abilities for a particular type of work h) eager to know or learn
II 1. decision-maker	a) searching for new discoveries

2. communicator	b) being able to make important choices or / and judgements
3. designer	
4. inventor	c) creating new models or designs d) making opinions and information known and understood by others, sharing and exchanging opinions.

- **Give Ukrainian equivalents for some characteristics of a scientist:**

a positive approach to failure; open-mindedness, cooperation with others; tolerance for other opinions, explanations, or points of view; avoidance of broad generalizations when evidence is limited; demand for verification, longing to know and to understand; respect for logic; consideration for consequences.

- **What are the motives for doing science? Read the text and say if they are the same with yours.**

The Importance of Science

Thinking about science, Goethe once said: «To one man it is the highest thing, a heavenly goddess; to another it is a productive and proficient cow who supplies them with butter». The results of science and the motives for doing it are diverse.

Curiosity is the most powerful motivation for research professionals — and for many amateurs, too. Science clarifies, explains and occasionally predicts. Understanding a piece of universe can bring satisfaction and excitement to anyone.

One can do science because one believes that practically and effectively it benefits the world. A great many scientists have had this chief conscious reason. One can do science because it represents the truth. One can also do science because one enjoys it. Many people like unravelling puzzles. Scientific puzzles are very good ones, with reasonable prizes.

Science serves the missions of improving health, national security, energy, the environment and communications; it creates new products, meets the demands of emerging markets and satisfies social needs. But even strong faith in science may crack in straitened circumstances.

When it comes to future justification for curiosity-driven and mission-oriented research, we encounter three related undertakings.

First, we have to rethink the case from inside the scientific community. Government, businesses and universities must demonstrate that investments in science are the only way of fulfilling long-range goals. Research executives will have to document the ample returns from past investments and then outline future paths. Setting priorities will not be easy, and stern management to ensure excellence will be essential.

Second, we should broaden the dialogue. Society must be engaged in continuing exchange about national goals and research priorities. The press, industry, nonprofit organizations must participate.

Finally, we must expand the accessibility of knowledge. The entire professional community must pay more attention to building a scientifically literate society. Support for science, and for the benefits of technology, increases with educational level. To be successful in the twenty-first century, we need more science, not less.

Text work

1. Comprehension check:

1. Interpret Goethe's words concerning science. What does he mean? Why do people do science?
2. List the reasons for doing science.
3. What are the missions of science?
4. Comment on the problems concerning scientific development. What are the possible ways of solving them?

2. Complete the following ideas:

Curiosity is

One can do science because it the world.

it the truth.

one it.

he puzzles.

scientific puzzles prizes.

Vocabulary work

1. Give Ukrainian equivalents of the following words: *diverse, occasionally, to satisfy, to improve, community, faith, essential, to expand, to access, benefit, curiosity.*

2. Match the words with their meanings:

1. diverse	a) completely necessary for the existence, success of smth.
2. occasionally	b) to increase in size, number, volume
3. to satisfy	c) anything that brings help, advantage or profit
4. to improve	d) to reach, enter or obtain
5. community	e) firm belief, complete confidence
6. faith	f) sometimes, from time to time
7. essential	g) to make better
8. to expand	h) to give enough
9. to access	i) showing variety, different
10. benefit	j) a group of people living together and united by shared aims and interests
11. curiosity	k) desire to know or learn

3. Give English equivalents for: *сильний стимул; професіонали та аматори; різноманітні мотиви; політизувати; слугувати меті; час від часу, фінансова скрута; довкілля; задовольняти потреби; довгострокові цілі; наукова спільнота; некомерційні організації; розширяти доступність знань; приділяти більше уваги; переваги науки та техніки; національна безпека; встановлювати пріоритети.*

4. In the text:

- What is diverse?
- What happens occasionally?

- What brings satisfaction?
- What does science improve?
- What and why can happen with faith in science?
- What must we expand?
- Support for the benefits of what?
- What is curiosity?

5. Find the synonyms in the text to the following words and word combinations: *sometimes, different, belief, most important, to increase, advantage, to reach, to make better.*

6. Prepare an oral presentation about characteristics of a true scientist. Participate in the forum discussing characteristics of a true scientist. Voice your opinion on this issue.

7. Think of a scientist from your field of knowledge who made a significant contribution to its development and present him/her and their achievements to the class.

8. Think of the arguments how your field of knowledge is crucial for the economy of the country.