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## **ИНОСТРАННЫЙ ЯЗЫК**

**Методические материалы для обучающихся**  
**всех специальностей и направлений подготовки**

**Рекомендовано учебно-методической комиссией направления**  
**18.03.01 Химическая технология**  
**в качестве электронного издания**  
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Методические материалы включают в себя задания и упражнения, направленные на приобретение обучающимися компетенций, предусмотренных рабочими программами дисциплины «Иностранный язык» всех специальностей и направлений подготовки всех форм обучения. Методические материалы состоят из 8 разделов, в каждом из которых отражено общее содержание практических занятий и самостоятельной работы по дисциплине. В издании представлен лексико-грамматический материал, тексты общекультурного, общетехнического и специального содержания, а также комплект коммуникативных заданий, в том числе интерактивного характера.

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2025

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## **PART I**

**I. Read and try to memorize the following words. Make up sentences using these words.**

sociability	общительность
kind-heartedness	отзывчивость
courtesy	вежливость
arrogance	высокомерие
rudeness	грубость
discourtesy	хамство
hard worker	трудолюбие
responsibility	ответственность
perseverance	настойчивость
dishonesty	недобросовестность
inactivity	пассивность
carelessness	беспечность
disorderliness	неорганизованность
self-esteem	самооценка
self-criticism	самокритичность
modesty	скромность
impudence	наглость
resentment	обидчивость
shyness	застенчивость
selfishness	эгоизм

**II. Read and translate the following information in Russian.**

A character is a word of Greek origin and literally means a sign, a distinguishing feature. It defines features of the behavior of an individual and his or her relationship with others. Its traits determine patterns of behavior and a way of life of a human being.

Psychologists divide traits of human nature into four groups:

Relation to others:

positive traits: sociability, kind-heartedness, attention, courtesy, respect;

negative traits: morose manners, arrogance, rudeness, discourtesy, disdain;

Attitude to work, to objectives and goals:

positive traits: hard worker, a taste for creativity, scrupulousness, responsibility, entrepreneurial attitude, perseverance;

negative traits: laziness, propensity for routine work, dishonesty, irresponsibility, inactivity, carelessness, disorderliness;

Attitude to oneself:

positive traits: self-esteem, adequate pride and self-criticism, modesty, respect for the individual self;

negative traits: self-conceit, impudence, vanity, resentment, shyness, self-absorption, selfishness, arrogance, self-humiliation;

Attitude to things:

positive traits: accuracy, gentle handling of things;

negative traits: carelessness, negligence.

Two groups of human nature: the attitude of an individual to colleagues and the people around him or her and the attitude to work – are the central, or core, relationship of an individual. These two groups, being the central relationship, play an important role in the up-bringing of a person and the formation of his or her line of behavior.

Psychologists agree that it is impossible to overcome some deformity of nature and foster necessary positive qualities. In other words, you can not only generate a certain trait (quality), you can just bring up the whole system of traits (qualities), paying particular attention, first of all, to the formation of relationships to people (staff) and work. Despite the assertion of the existence of the central group of relationships, it is important to note, that there are people with a more holistic and less holistic or contradictory character.

**III. Describe the following traits of character. Do you possess them?** Responsibility, tolerance, honesty, decisiveness, kindness, friendliness, optimism, generosity, envy, intemperance, pessimism, touchiness, aggression, slyness.

**IV. Describe your character in some sentences.**

**V. Answer the following questions.** 1. Do you have a lot of friends? Is it easy for you to make friends? 2. Can you say that you're the responsible person? Why do you think so? 3. Is it possible to say that

you're the honest person? Are there any situations when you have to lie? 4. Are you the emotional person? In what cases do you have to hide your emotions? 5. Do you have a sense of humor? What do you prefer – to joke or to laugh at somebody's jokes? 6. Are you the decisive person? Can you prove it? 7. Are you the tolerant person? Are there any persons who irritate you? 8. Is it easy to hurt your feelings? What makes you think so? 9. Are there any traits of character that you hate? What are they? 10. What traits of character do you want to develop in yourself? Why? 11. Do you often have quarrels with people? Why? 12. Are you the talkative person? Is it difficult for you to talk to the unknown people? 13. Are you the jealous person? What makes you think so? 14. Do you often envy other people? What can provoke your envy?

## **VI. Make up the story about yourself.**

### **PART II**

#### **I. Translate the words and memorize them.**

have relations with	named after
be founded	transform
construction	mining
teaching staff	department
branch	scientific
environmental protection	water purification
mineral deposit	industrial safety
training	physics
design	applied
research	chemistry

#### **II. Translate the following word-chains. Mind word-formation:**

technique – technical – technician, mine – miner – mining, academy – academic – academican, construct – constructor – construction – reconstruction, mechanic – mechanical – electromechanical – mechanism, counsel – counselor – counseling, train – trainer – trainee – training, certify – certificate – certification, teach – teacher – teaching, purify – purification, apply – applied – application – applicant, transmit – transmitter – transmission, perform – performer – performance, name – rename, educate – education, provide – provider – provision

**III. Read the text and answer the following questions:** When was the university founded? What was its name at that time? How many faculties did it have at that time? What were they? When did its first academic year start? How big was the teaching staff at first? What happened in 1965? When was the Mining Institute renamed into the university? Which higher institutions has the university got international relations with? What licenses has the university got?

T. F. Gorbachev Kuzbass State Technical University in short was founded on August 30, 1950 as Mining Institute on the basis of Kemerovo mining and construction technical school. It is named after its first rector – professor Timofey Fedorovich Gorbachev.

The first 300 students came from Moscow. The first academic year started on the 1<sup>st</sup> of November. There were only two faculties: mining and mine construction and electromechanical. At that time there were 14 departments and 27 members of the teaching staff (only 6 of them had academic degrees).

In 1965 the Mining Institute was transformed into Kuzbass Polytechnic Institute. In November 1993 it was renamed into Kuzbass State Technical University.

In 1997 the University opened training and counseling centers in the cities of Anzhero-Sudzhensk, Belovo, Mezhdurechensk, Novokuznetsk, Prokopyevsk and Tashtagol. In 1998 training and counseling centers were transformed to branches of KuzSTU.

Kuzbass State Technical University has international relations with higher education institutions and the companies in China and other neighboring countries.

The University has got several research laboratories: applied thermo physics, mining technology improvement, environmental protection, processes and devices of water purification, geodynamics of mineral deposits.

The University has licenses for design of buildings and constructions, for expertise of industrial safety, for performance of geodetic works, for development of standards of emissions of the polluting substances in environment, for providing telematic services and services of data transmission.

Today KuzSTU is one of the largest higher education institutions of Siberia. The history of KuzSTU is closely connected with history of Kuzbass and is one of its symbols.

#### **IV. Find English equivalents in the text.**

1. был основан	13. учреждение высшего
2. государственный	образования
3. на основе	14. соседние страны
4. горный техникум	15. угольные месторождения
5. назван в честь	16. исследовательские лаборатории
6. учебный год	17. улучшение способов
7. строительство шахт	разработки
8. кафедра	18. защита окружающей среды
9. был преобразован	19. проектирование зданий
10. был переименован	20. приборы для очистки воды
11. филиалы	21. передача данных
12. международные	22. залежи полезных ископаемых
отношения	23. тесно связан

#### **V. Read the text and fill in the gaps. Use the information from the site of KuzSTU.**

KuzSTU it is the largest higher educational institution in the region. The University has imposing personnel's potential. There are \_\_\_\_ professors in it. Some leading specialists of various branches of industry work at the University. At present there are \_\_\_\_ institutes and \_\_\_\_ departments, many well-equipped laboratories, a research department, a IT centre, a large library and 2 museums in it. The training for \_\_\_\_ specialties is carried out. Some towns and cities of Kemerovo region have branches of the University.

The total amount of students is \_\_\_\_\_. Full-time students are \_\_\_\_\_, students by correspondence are \_\_\_\_\_ and post-graduates are \_\_\_\_\_. People working for a doctor's degree and post-graduates can present their thesis for the Scientific Boards of the University. The total amount of graduates is about \_\_\_\_\_ persons. They work in all regions of the Russian Federation. But they have made the most valuable contribution in the development of the main industries in Kuzbass.



Kuzbass State Technical University has \_\_\_\_ buildings, \_\_\_\_ hostels, \_\_\_\_ dining-halls, a dispensary, recreation facilities. The University has necessary technical devices for computer-aid training of students.

The size of the book stock of the University's library is more than \_\_\_\_ copies (including \_\_\_\_ copies of study aids and \_\_\_\_ ones of research literature). The University has international connections with higher educational institutions and firms in different countries. The best students have a chance to study abroad.

Great attention is paid to the spare time of students. There is a theatre-studio "Lozha" and some other amateur societies. The University is famous for its sportsmen. It also has the scientific bulletin "Vestnik" where professors and students can publish the results of their research work.

## VI. Find English equivalents in the text

- |                                      |                                  |
|--------------------------------------|----------------------------------|
| 1. кадровый потенциал                | 9. предприятие                   |
| 2. почетный ученый                   | 10. проводится, осуществляется   |
| 3. различные отрасли промышленности  | 11. студенты, обучающиеся заочно |
| 4. в настоящее время                 | 12. аспиранты                    |
| 5. кафедра                           | 13. диссертация                  |
| 6. научно-исследовательский институт | 14. выпускники                   |
| 7. хорошо оборудованные лаборатории  | 15. ценный вклад                 |
| 8. студенты очной формы обучения     | 16. размер библиотечного фонда   |
|                                      | 17. базы отдыха                  |
|                                      | 18. учиться за границей          |
|                                      | 19. совет попечителей            |
|                                      | 20. научная газета               |

## PART III

### I. Read and try to memorize the following words.

- |                |                 |
|----------------|-----------------|
| education      | образование     |
| industrial     | промышленный    |
| ancient        | древний         |
| to be founded  | быть основанным |
| to be situated | находиться      |

bank of the river	берег реки
district	район
many-storied	многоэтажный
apartment house	жилой дом
block of flats	жилой дом
recreation areas	места отдыха
to remain	оставаться
Embankment	набережная
city habitant	житель города
to grow	расти
population	население
to offer	предлагать
a wide range of	широкий спектр
development	развитие
mechanical engineering	машиностроение
coal mining	добыча угля
enterprise	предприятие
thanks to	благодаря чему-л.
construction	строительство
plants and factories	заводы и фабрики
flower bed	клумба
within urban limits	в пределах

**II. Compose two-three sentences using as many words from the previous exercise as possible.**

**III. Read and translate the following text in Russian.**

My native town is Kemerovo. Kemerovo is an administrative, cultural, educational and industrial center of Kuzbass, located in the south of Western Siberia. It's not an ancient town. It was founded in 1918. First its name was Shcheglovsk and then it was renamed in Kemerovo in 1924.

The town of Kemerovo is situated on the river Tom. The river divides it into two parts. The older part of the town lies on the right bank of the river. Here you can see some old buildings and historical part of the city. There is also the museum "Krasnaya Gorka", where you can learn a lot of interesting facts about first settlers of the city.

But there are also new districts on the right bank of the river consisting of modern many-storied apartment houses, commercial centers

and recreation facilities. Every year hundreds of Kemerovites move to live in these huge blocks of flats.

On the left bank of the river Tom some newer districts are situated. Nevertheless, here you one can also find some old buildings. The whole architectural complex called “the old center” remains almost untouched since the middle of the last century. There is the beautiful Embankment, where the city habitants and our guests like to walk in summer. In this district all city administration buildings are also situated.

Kemerovo is growing town. Now its population is a little bit more than 500 thousand people. But a lot of student coming to study in Kemerovo contribute to its permanent growth. Kemerovo is one of the main educational centers of Western Siberia. There is a lot of higher education institution offering a wide range of educational programs to the young people from different Siberian regions.

Among those there is Kuzbass Technical University, which is the largest education center of Kuzbass. There are also Kemerovo State University, Institute of Food Industry, University of Arts and Culture, Medical Institute, University of Trade and Commerce and many other educational institutions.

Kemerovo is also the industrial city. In the past its industrial development was determined by coal mining and mechanical engineering plants. Now there are no mining enterprises but thanks to the development of chemical, fertilizer, construction and some other plants and factories it still remains the important industrial centers.

There are a lot of recreation areas in the town. Kemerovo is well known for its green parks where people of all ages can find everything for their leisure activities. There are many trees and flower beds along the streets and it's very pleasant to walk around the town, especially in summer.

Kemerovo is the cultural capital of the region. Here one can visit Drama Theatre, Philharmonic Society, Puppet Theatre, some smaller theatres among which there are the students' theatres “Lozha” and “Vstrecha”. The best artists from all over the world often come to our city and we can enjoy their performances. There are also some modern cinema halls and the circus in our city.

My town is noted for its unique piny wood situated within urban limits. It gives us the all the year round possibility to go there for a walk or picnics. There you can see many skiers in winter. I like my city very much

and I'm sure that I will come here as often as possible even if I will leave it in future.

**IV. Answer the following questions.** 1. What is your native town? 2. Is your native town ancient or modern? 3. Do you know the history of your native town? 4. Where is your native town situated? 5. Which river runs through your city? 6. What is your town famous for? 7. Are there any architectural monuments in your town? What are they? 8. Are there any museums in your town? Have you visited them? 9. What places of your city are popular among the citizens? 10. What famous people lived in your town? 11. Which is the main street in your city? Who is it named after? 12. Are there any Universities in your town? What are they? 13. Do you often visit theaters? Why? 14. Are there any industrial enterprises in your town? 15. What goods are produced in your town? 16. What can you say about cultural life of your town? 17. How do people of your town spend their leisure time? 18. Are you proud of your town? Why?

**V. Process the information given in the text in the following way:**

- a) divide the text into some parts according to its content;
- b) write out a number of key-words to each part of the text;
- c) retell each part using the key-words;
- d) determine the main idea of the text;
- e) retell the text in 10-12 sentences.

**VI. Compose the story about your own native city.**

## **PART IV**

**I. Read and try to memorize the following words. Make up sentences using these words:**

to consider

gravity

supporter

dull

Euclidean geometry

to move to

to withdraw

считать

гравитация

сторонник

скучный, занудный

евклидова геометрия

переехать куда-либо

уходить

to skip	пропускать ( уроки )
photon	фотон
quantum theory of light	квантовая теория света
emissions of electrons	испускание электронов
solid objects	твердые тела
theory of relativity	теория относительности
motion	движение
observer	наблюдатель
natural laws	законы природы
universe	Вселенная
energy mass equivalence	эквивалентность массы и энергии
curved field	искривленное поле
confirmation	подтверждение
controversial	спорный

## **II. Read and translate the following information in Russian.**

### **Albert Einstein**

This German physicist is considered one of the world's greatest thinkers in history. Not only did he shape the way people think of time, space, matter, energy, and gravity but he also was a supporter of Zionism and peaceful living.

Einstein was born on March 14, 1879 in Ulm, Germany, and spent most of his youth living in Munich, where his family owned a small shop. He attended schooling in Munich, which he found unimaginative and dull. In addition to this, he taught himself Euclidean geometry at the age of 12.

Later his family was forced to move to Milan, Italy where he then decided to withdraw from school at the age of 15. Eventually, he realized that he had to finish secondary school. On the other hand, he still often skipped class to study physics on his own.

At age 22, he became a Swiss citizen and in 1903 married a woman, named Mileva Marec. In a few years, two sons were born but in 1919 he divorced as to marry his cousin.

On the other hand, he published five major research papers at the age of 26.

The first paper was on Brownian motion, which would get him his doctorate in 1905.

The second paper laid the base of the photon, or quantum theory of light. It said that light is made off separate packets of energy, titled quanta or photons. The paper remade the theory of light. Also explaining the emissions of electrons from some solid objects when they are struck by light. Televisions are practical applications of Einstein's discoveries.

The third paper, which he began as an essay at age 16, contained the "special theory of relativity". He showed that time and motion are relative to the observer, and the speed of light is constant and natural laws are the same everywhere in the universe.

The fourth was a mathematical addition to the special theory of relativity. This is where he presented his famous  $E = mc^2$ , also known as the energy mass equivalence.

His fifth paper was his general theory of relativity. In which he proposed that gravity is not a force, a previously accepted theory but it's a curved field in the space-time continuum created in the presence of mass.

In 1921, Einstein won the Nobel Prize for physics for the confirmation of his general theory of relativity although the other papers where still considered controversial.

In 1933, he moved to the USA where he became a citizen in 1940. Einstein died in Princeton, NJ, on April 18, 1955.

**III. Answer the following questions:** 1. What is Albert Einstein famous for? 2. Why did Albert usually skip classes usually? 3. Why did Albert Einstein get doctorate in 1905? 4. Why was Einstein's second paper important? 5. What did the third paper contain? 6. What was presented in the fourth paper? 7. What theory did Einstein propose in his fifth paper? 8. What did Albert Einstein win the Nobel Prize for?

#### **IV. Make up an abstract to the text. Follow the guidelines.**

**a) Formulate the theme of information from the text using the following clichés:** the texts deal with (touch upon, are devoted to, describe).

**b) Process the information given in the text in the following way:**  
a) divide the text into some parts according to its content; b) write out a number of key-words to each part of the text; c) retell each part using the

key-words; d) determine the main idea of the text; e) retell the text in 10-12 sentences.

**c) Find out author's conclusion in the text; write it down using the following clichés:** the author concludes with a consideration of, the author comes to the conclusion that, in conclusion the author says that.

**d) Give your own comments on the information from the text.** Try to answer the questions: a) how do you evaluate the actuality of this information; b) how do you think who and for what purposes could use it. Use the following clichés: the information of the texts is addressed to the students (graduates, engineers, specialists, all those interested in); the texts may be recommended to; the information of the texts is interesting (important, useful, hard to understand).

**e) Present your abstract of the information from the text according to the following structure:**

1. The theme of the text.
2. The main idea of the text.
3. Summary of the text.
4. Author's conclusion.
5. Your own comments.

## **PART V**

### **I. Read and try to memorize the following words.**

to face	сталкиваться
to make sure	убедиться
to enable	поощрять
inclination	наклонность
to succeed	преуспеть
to be forced	быть вынужденным
prospects	перспективы
promotion	карьерный рост
to climb	взбираться
the ladder	лестница
salary	зарплата
sociable	общительный

timid	пугливый, робкий
skill	навык
exhausting	изматывающий
to devote	посвящать

**II. Compose two-three sentences using as many words from the previous exercise as possible.**

### **III. Read and translate the following text in Russian.**

Choosing a career path should include several steps.

The first step of career choice process is self-assessment by taking one of many self-assessment tests, often called career tests. Before you can make a career choice you need to assess your personal skills, abilities, knowledge, values, personality and interests. Psychologists think that it is very important that the person's psychological characteristics correspond to the profession's characteristics. First, the profession should be interesting for you. If you like plants and animals, it will be interesting if you deal with wildlife in your occupation. Second, any profession demands that the person have traits that are important for that line work. For example, if the person is sociable, then professions that involve a lot of interaction with people are for him/her; if he/she is very emotional, then he/she won't be able to perform routine tasks that demand concentration for long periods of time.

Some people choose to get advice of career counselors or other career development professionals, too.

Then, you will have to make a list of occupations that seem appropriate. Your values, interests, and skills, in combination with certain personality traits, will make some careers especially suitable for you and some particularly inappropriate.

After self-assessment, it's time to explore career options that match your personality and interests. This can be done via Internet, career centers, campus career advice centers, books, career fairs and people in the industry, watching career videos, researching employers, doing part-time work in your desired field and researching the labour market.

When exploring career possibilities, you will have to identify the following for each career: the main job responsibilities, prospects of promotion, requirements for applicants, required education and training, entry level requirements for the education, duration of studies, cost of



studies, job outlook, job competition, availability of internship positions, hours worked per day, dangers of the job, security offered, income potential, demand on family life, traveling requirements, values required in the job, typical personality traits found, typical skills required.

Then it is time to narrow down the list of career possibilities. After your education requirements are fulfilled, you will write a personal resume and pursue interviews. Making career choices are only part of the lifelong career planning process including choosing an occupation, getting a job, growing in your job, possibly changing careers, and retiring. After you obtain a job in your desired field, it is important to continue to manage and develop your career and keep up-to-date with changes in your profession. Continued learning and evaluation of your career goals are keys to success. There are many myths about choosing a career. One is that choosing a career path is simple but in fact, it is a multi-step process that takes time, effort and energy. Another myth is that the amount of money you could make should be at the top of your list. While salary is important, money doesn't necessarily lead to job satisfaction.

Yet another myth is that you should choose a career because a friend or family member is pursuing it. A career needs to match your personality and abilities. One last myth is that you are stuck in your career forever. In reality, you can change your career field by doing research and acquiring new skills or knowledge needed. But don't take this to mean one must know what you are going to do from birth through death and every step in between; the person who thinks like this is robbing himself of the chance to live creatively. You must be flexible when life throws something surprising at you, and willing to jump if your life goals change.

**IV. Answer the following questions:** 1. Have you already thought about your future career? What makes the profession chosen so attractive for you? 2. Do your parents give you a piece of advice about your future profession? 3. What are your parents? 4. Have you got any job traditions in your family? 5. Try to take a realistic view of your strengths and weaknesses. Which of your qualities are worth improving? 6. What occupations are popular nowadays in your country? Why? 7. What is the best way of preparing for your future profession? 8. Is it easy to choose a career? 9. Do you agree with the quotation: "It doesn't matter what job you do. It's how you do it"? 10. In what spheres of economy can you work after the graduation? 11. Why did you choose that faculty? 12. What diploma will you get after the graduation? 13. What specialty will you get

in four years? 14. What jobs will you be able to apply for? 15. Do you know how much will you be paid for your work? Is it enough for you? 16. Do you have the job of your dream? What should you do to get it? 17. What subject do you have to study to become the good specialist? 18. What qualities should you have to become successful? Do you possess them? 19. Do you try to develop yourself to be become successful? In what way? 20. How do you think can you become the leader? Why? 21. Have you ever thought about working abroad? Why? 22. Is it difficult for you to study at the University? Why? 23. Can you say that career is the main aim of your life? Why?

## PART VI

### I. Remember the following words and word combinations

environment	окружающая среда
ecology	экология
abundance	изобилие, избыток
climate	климат
adaptation	приспособление
habitat	родина, ареал, место обитания
emit	выделять, испускать
population	население, популяция
scarce	недостаточный, редкий
generation	поколение, род
soil	почва
species	вид, порода, разновидность
lineage	происхождение, потомство
trait	черта, особенность
ecosystem	экосистема

**II. Translate the following word chains. Mind the word-formation:** nature – natural, ecology – ecological, environment – environmental – environmentally – environmentalism, consume – consumer – consumption, produce – producer – production, generate – generation – generator, pollute – polluter – pollution – pollutant, science – scientific – scientist, adapt – adaptation – adaptive – adaptively, evolve – evolution – evolutionary, vary – variable – variability

**III. Read the text and answer the questions:** 1. What is the origin of the word “ecology”? 2. Who recorded the first observations and notes on the natural history of plants and animals? 3. Who introduced the evolutionary treatise? 4. What problems do ecologists deal with? 5. What applications of ecology do you know? 6. What sciences is ecology closely related to?

Ecology is the scientific study of the relations that living organisms have with respect to each other and their natural environment. Variables of interest to ecologists include the composition, distribution, amount (biomass), number, and changing states of organisms within and among ecosystems.

Ecosystems are sustained by the biodiversity within them. Biodiversity is the full-scale of life and its processes, including genes, species and ecosystems forming lineages that integrate into a complex and regenerative spatial arrangement of types, forms, and interactions.

Ecosystems create biophysical feedback mechanisms between living (biotic) and nonliving (abiotic) components of the planet. These feedback loops (цепь обратной связи) regulate and sustain local communities, continental climate systems, and global biogeochemical cycles.

Ecology is a sub-discipline of biology, the study of life. The word “ecology” was coined in 1866 by the German scientist Ernst Haeckel (1834–1919). Ancient philosophers of Greece, including Hippocrates and Aristotle, were among the earliest to record observations and notes on the natural history of plants and animals. Modern ecology branched out of natural history and matured into a more rigorous science in the late 19th century. Charles Darwin’s evolutionary treatise including the concept of adaptation, as it was introduced in 1859. Ecology is not synonymous with environment, environmentalism, natural history or environmental science.

Ecologists seek to explain:

Life processes and adaptations

Distribution and abundance of organisms

The movement of materials and energy through living communities

The succession development of ecosystems, and

The abundance and distribution of biodiversity in context of the environment.

Ecology is a human science as well. There are many practical applications of ecology in conservation biology, wetland management, natural resource management (agriculture, forestry, fisheries), city

planning (urban ecology), community health, economics, basic and applied science and human social interaction (human ecology).

#### **IV. Match the words with their definitions.**

1. ecology	a. is the principle that when two species compete for the same critical resources within an environment, one of them will eventually outcompete and displace the other.
2. habitat	b. is climate, weather, and natural resources that affect human survival and economic activity.
3. plant	c. is the natural environment of an organism; place that is natural for the life and growth of an organism.
4. competitive exclusion principle	d. is a system, or a group of interconnected elements, formed by the interaction of a community of organisms with their environment.
5. natural environment	e. is living organisms belonging to the kingdom Plantae
6. ecosystem	f. is a class of individuals having some common characteristics or qualities; distinct sort or kind.
7. species	g. is the scientific study of the relations that living organisms have with respect to each other and their natural environment
8. climate	h. the composite or generally prevailing weather conditions of a region, as temperature, air pressure, humidity, precipitation, sunshine, cloudiness, and winds, throughout the year, averaged over a series of years.

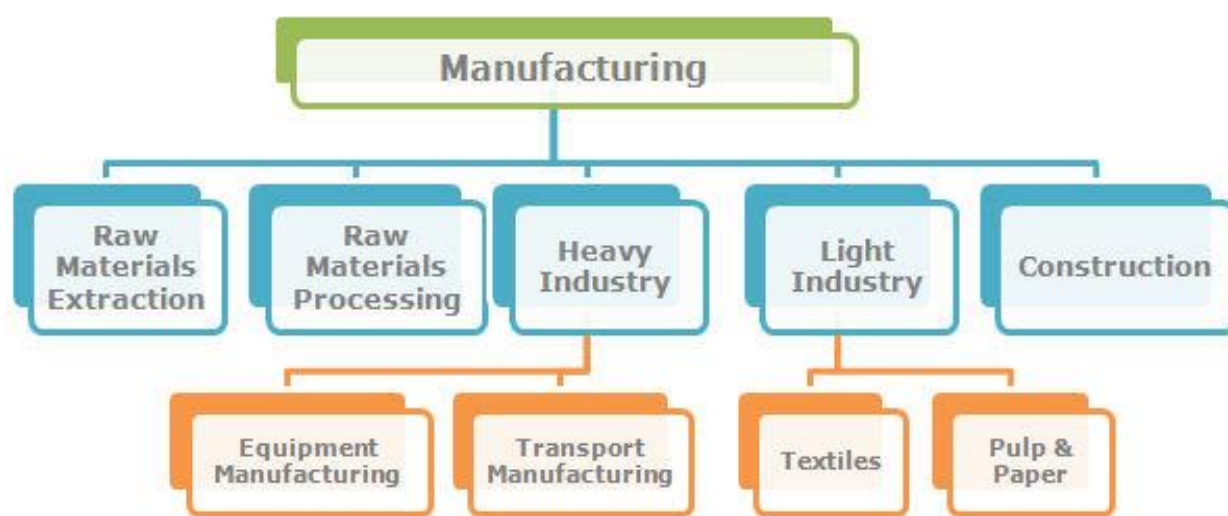
#### **V. Read the text and find English equivalents to the following words and word-combinations.**

1. грязные пары	9. разлагаться
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2. тяжелая промышленность
3. энергетика
4. ископаемое топливо
5. вредные газы
6. отходы
7. удобрения
8. вырубка лесов

10. добыча полезных ископаемых
11. строительство
12. парниковые газы
13. переработка сырья
14. источник
15. древесина

### Sources of Pollution



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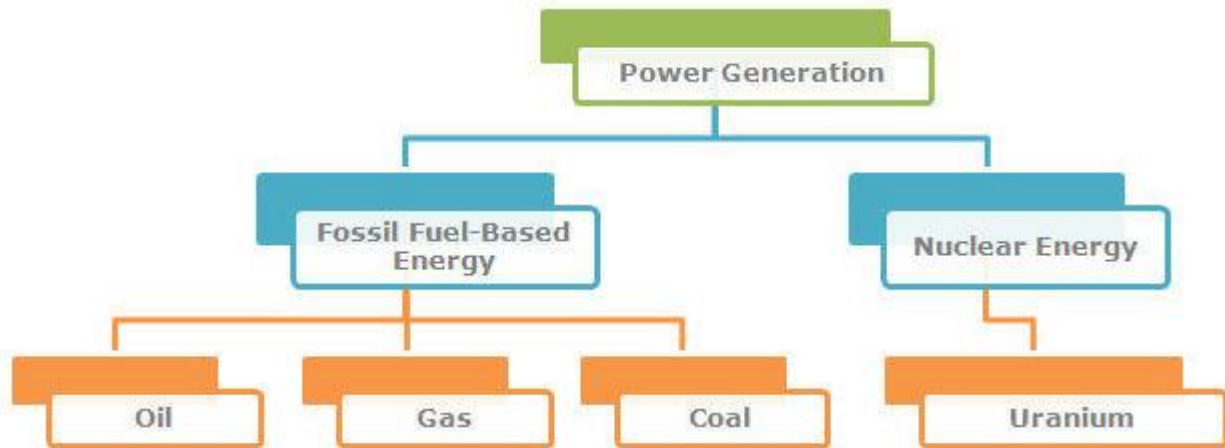
When we think of pollution, the first thing that naturally comes to mind is manufacturing. And that is no surprise. Images of enormous chimneys emitting heavy dirty fumes into the air are very powerful indeed, and are directly associated with pollution. Manufacturing includes numerous industries which are in fact sources of all types of pollution – air, land and water.

So each of these sectors including their own sub-sectors is a source of pollution: raw materials extraction, raw materials processing, heavy industry, light industry, construction.

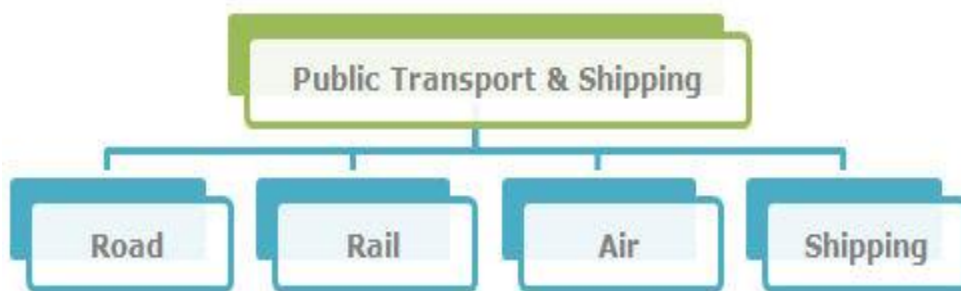
Power generation is another huge source of pollution which is nowadays associated with smoky chimneys even more than manufacturing.

The classical example here is the burning of fossil fuels to generate power. Carbon dioxide and other harmful gases are emitted in the process and cause serious ecological damage for many years to come.

Nuclear power is far from being a clean source of energy. The toxic radioactive waste produced as a result of its generation takes thousands of years to decompose and become harmless. So don't fall for the lie of looking at nuclear as a "green" source of energy just because it doesn't emit greenhouse gases into the atmosphere.

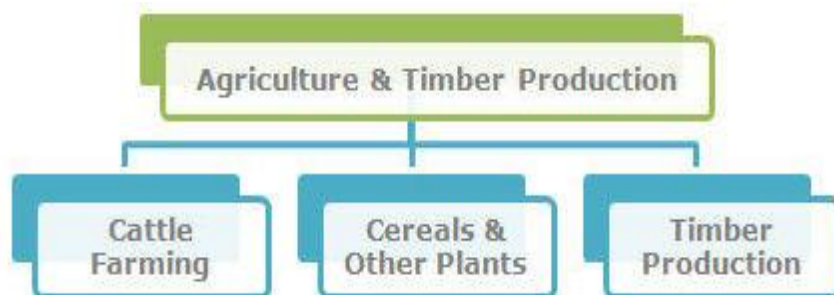


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Public transport & shipping are also significant contributors to global pollution levels. All of them use fossil fuels for operation. Rail transport is probably the cleanest of all the types, and air transport is assumed to be one of the least efficient ones.



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The public often doesn't realize just how significant a source of pollution agriculture & timber production have become.

Livestock farming uses vast amounts of resources and produces a lot of waste. Harmful fertilizers are widely used to grow cereals and other plants – such chemicals affect negatively the wider environment as well as human health.

Timber production is a major cause of global deforestation which releases carbon dioxide into the atmosphere.

**VI Answer the following questions to the text:** 1. What are the main industrial sources of pollution? 2. How does power generation contribute to environmental pollution? 3. Why can't nuclear power be considered "green"? 4. Why are public transport and shipping also significant contributors to global pollution? 5. Which types of transport can be probably assumed the cleanest of all, and the least efficient ones? 6. What damage does agriculture cause? 7. What is a major cause of global deforestation? Why?

**VII. Read the text and write out the problems caused by consumption. Think of the ways to solve them. Discuss your ideas with other students**

### **Consumption Side**

While production sectors are obvious examples of "pollution creation", consumption presents a more subtle side to this issue.

When we look at individual consumers, a lot of pollution comes from landfill disposal of post-consumption waste which could actually be recycled. At the same time, there are many consumer goods which cannot be recycled – and they end up on the landfill as well.

As for the wider residential sector, domestic gas heating systems and private transport are no doubt some of the major contributors to global pollution. On top of that, many residential items which can or cannot be recycled (ex., domestic furniture) are also sent to landfills.



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Sources of pollution by individual consumers and residential sector: food, clothing, other personal goods, private housing, private transport.



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Sources of pollution by commercial & social sectors: commercial premises (недвижимость), commercial transport, governmental & non-governmental bodies' premises, transport for use by governmental & non-governmental bodies, pollution agents.

We refer to pollution agents as the chemicals which are released into the environment as part of the waste products generated from production and consumption activities. In other words, pollution agents are the “operators” which make pollution “happen”. They are also known as environmental pollutants, air pollutants and so on. Some of them are carbon dioxide, sulfur dioxide, nitrogen oxides.

## PART VII

### I. Translate the words and memorize them.

items on the agenda  
 as I see  
 either ... or ...  
 to train / to teach  
 view on  
 waste of time

as you know  
 recruitment  
 to take on / to employ  
 to transfer / to send  
 proposal  
 branch



## **II. Make up dialogues:**

To... is a waste of time. Do you agree?

Yes, that's true / No, I have another view on it.

I have a trouble with... What can you advise?

I think you must either ... or ...

## **III. Read and translate the dialogue.**

**A:** The next item on the agenda is the new foreign branch. As you know, we're going to open the new branch in March and so we need to discuss recruitment. Basically we have two alternatives. We have either take on new foreign workers and train them. Or we can teach our specialists English and transfer them. Any views on this?

**B:** Yes. The important thing here is operation and technology knowledge, not language. Our specialists have already got the production knowledge. They know how the company operates too. I think we should teach them English and transfer them.

**A:** How do you feel about this proposal?

**C:** I don't agree. It takes years to learn a language. But why don't we employ foreign staff and send them to Russia for technical training?

**B:** No, it's a waste of time, if you can't speak Russian.

**C:** What do you think?

**A:** I don't know, how long does it take to train a new worker?

**B:** It depends on the specialist.

**A:** That is a problem. But I think nationality is important here. It's a foreign branch so I don't think we should employ our specialists. Now I know we are not going to agree with me here, but as I see if we have no choice... **(continue the sentence and prove your decision).**

## **III. Translate the words and memorize them.**

to move on

to notice

to review

to shut down

to cover cost

to deal with / to take care of

to be mixed up with

figure

to fill in

to keep open

trial period

#### IV. Make up dialogues:

- A** Первый вопрос на повестке... Мы должны либо... либо...  
Что вы думаете об этом?
- B** Я думаю, мы должны...
- C** Это хорошая идея, но... Я думаю, что мы должны...
- A** Хорошо, давайте попробуем первый вариант. Кто займётся этим?
- B** Я могу заняться этим. Мне нужно... времени.
- A** Вам нужны дополнительные работники?
- B** Да, мне нужно... человек.
- C** Когда будут готовы цифры?
- B** Я подготовлю презентацию через неделю.
- A** Хорошо, вернемся к вопросу через неделю. А вы займитесь финансами. Я хочу знать, как мы сможем покрыть расходы по проекту.
- C** Хорошо, но мне нужно три дня.
- A** Отлично, я приглашу вас через три дня

#### V. Compose you own conversation according to the scheme below:

A	B	C
introduces the subject		
presents the alternatives		
asks for an opinion		
	makes a point	
	makes a proposal	
asks for a reaction		
		disagrees
		suggests alternative
	rejects the suggestion	
		asks for an opinion
gives an opinion		