Unit 2.
Factors of Production

Text 2A



1. Before you start.

- Define the three factors of production – labor, capital, and natural resources.
- Explain the role of technology and entrepreneurs in the utilization of the economy's factors of production.

2. Read the words and learn them by heart. Make up your own sentences with them.



1. **To concern** – иметь отношение к, беспокоиться
2. **Satisfaction** – удовлетворение, удовольствие
3. **To satisfy** – удовлетворять, отвечать (требованиям, стандартам)
4. **To derive** – получать, извлекать, происходить
5. **To pursue** – следовать, заниматься (чем-либо)
6. **Utility** – польза, общественная полезность
7. **Labor** – работа, труд
8. **Capital** – капитал, состояние
9. **Natural resources** – природные ресурсы
10. **To pool one's resources** – объединять свои ресурсы
11. **Effort** – усилие, попытка
12. **To apply** – применять, употреблять, обращаться с просьбой, просить (о чем-либо)
13. **Application** – практические применение, употребление
14. **Core** – суть, сущность, сердцевина, ядро
15. **To enforce** – усиливать, настаивать на
16. **To gain skills** – приобретать навыки
17. **To acquire** – приобретать, получать, овладевать (каким-либо навыком)

18. **Cleaver** – кухонный топорик
19. **Hook** – крючок, крюк
20. **Grinder** – дробилка, кофейная мельница
21. **To butcher** – забивать, резать, разделывать мясную тушу или рыбу
22. **Screwdriver** – отвёртка, шуруповёрт
23. **Wrench** – дёргание, выкручивание
24. **Score** – счёт
25. **Assets** – активы баланса, имущество, капитал
26. **Stocks** – акции, акционерный капитал
27. **Bonds** – облигации

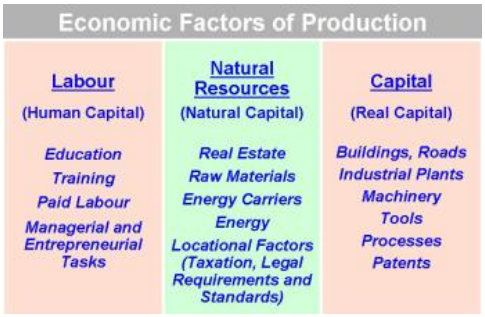


3. Read the text 2A, translate it and compare your ideas in ex.1 with the facts.

Factors of Production

Choices concerning what goods and services to produce are choices about an economy's use of its factors of production, the resources available to it for the production of goods and services. The value, or satisfaction, that people derive from the goods and services they consume and the activities they pursue is called utility. Ultimately, then, an economy's factors of production create utility; they serve the interests of people.

The factors of production in an economy are its labor, capital, and natural resources. Labor is the human effort that can be applied to the production of goods and services. People who are employed or would like to be are considered part of the labor available to the economy. Capital is a factor of production that has been produced for use in the production of other goods and services. Office buildings, machinery, and tools are examples of capital. Natural resources are the resources of nature that can be used for the production of goods and services.



https://aerdzeitler.files.wordpress.com

The three basic building blocks of labor, capital, and natural resources may be used in different ways to produce different goods and services, but they still lie at the core of production.

Labour

Labor is human effort that can be applied to production. People who work to repair tires, pilot airplanes, teach children, or enforce laws are all part of the economy's labor.



http://venturepilot.co.uk/images/honour

People who would like to work but have not found employment – who are unemployed – are also considered part of the labor available to the economy.

In some contexts, it is useful to distinguish two forms of labor. The first is the human equivalent of a natural resource. It is the natural ability an untrained, uneducated person brings to a particular production process. But most workers bring far more. The skills a worker has as a result of education, training, or experience that can be used in production are called human capital. Students who are attending a college or university are acquiring human capital. Workers who are gaining skills through experience or through training are acquiring human capital. Children who are learning to read are acquiring human capital.

The amount of labor available to an economy can be increased in two ways. One is to increase the total quantity of labor, either by increasing the number of people available to work or by increasing the average number of hours of work per week. The other is to increase the amount of human capital possessed by workers.

Capital

Long ago, when the first human beings walked the earth, they produced food by picking leaves or fruit off a plant or by catching an animal and eating it. We know that very early on, however, they began shaping stones into tools, apparently for use in butchering animals. Those tools were the first capital because they were produced for use in producing other goods – food and clothing.

Modern versions of the first stone tools include saws, meat cleavers, hooks, and grinders; all are used in butchering animals. Tools such as hammers, screwdrivers, and wrenches are also capital. Transportation equipment, such as cars and trucks, is capital. Facilities such as roads, bridges, ports, and airports are capital. Buildings, too, are capital; they help us to produce goods and services.



http://siliconangle.com/files/2011/12/ca

Capital does not consist solely of physical objects. The score for a new symphony is capital because it will be used to produce concerts. Computer software used by business firms or

government agencies to produce goods and services is capital. Capital may thus include physical goods and intellectual discoveries. Any resource is capital if it satisfies two criteria:

1. The resource must have been produced.
2. The resource can be used to produce other goods and services.

One thing that is not considered capital is money. A firm cannot use money directly to produce other goods, so money does not satisfy the second criterion for capital. Firms can, however, use money to acquire capital. Money is a form of financial capital. Financial capital includes money and other "paper" assets (such as stocks and bonds) that represent claims on future payments. These financial assets are not capital, but they can be used directly or indirectly to purchase factors of production or goods and services.

Natural Resources

There are two essential characteristics of natural resources. The first is that they are found in nature – that no human effort has been used to make or alter them. The second is that they can be used for the production of goods and services. That requires knowledge; we must know how to use the things we find in nature before they become resources.

(Source: Principles of Microeconomic; http://www.saylor.org)

4. Say if the sentences concerning Text 2A are true or false.

1. The value that people derive from the goods and services they consume and the activities they pursue is called worthlessness.
2. Factors of production serve the interests of people.
3. The factors of production in an economy are money, goods and real estate.
4. Office buildings, machinery, and tools can be called capital.
5. People who do not work are not considered part of the labor available to the economy.
6. The skills a worker has as a result of education, training, or experience that can be used in production are called human capital.
7. The first capital were the tools shaped from stones that people used in butchering animals.
8. Buildings are not considered to be capital, as they do not take part in producing goods and services.
9. Capital may include physical goods and intellectual discoveries.
10. We do not need any special knowledge and understanding of how to use the things we find in nature before they become resources.



5. Answer the following questions.

1. What are the choices concerning what goods and services to produce?
2. What do an economy's factors of production serve?
3. What are the three factors of production?
4. Describe labour as a factor of production?
5. Define two forms of labor.
6. Give examples of human capital.
7. How can the amount of labor available to an economy be increased?
8. What was the first capital used in producing other goods?
9. Single out the examples of capital?
10. What criteria any resource must satisfy to become capital?
11. Why money is not considered capital?
12. What does financial capital include?
13. Name two essential characteristics of natural resources.

6. Give English equivalents of the following words and word combinations from Text 2A.

Производство товаров и услуг, создают полезность, служат интересам людей, может быть применен, человеческие усилия, составлять сердцевину, основные составляющие, затраты человеческого труда (трудоёмкость), следить на соблюдением законов, человеческий эквивалент, значительно больше, приобретать навыки, придавать форму, по всей видимости (очевидно), забой скота, транспортное оборудование, вспомогательные средства, музыка к симфонии, приобретать капитал, бумажные активы, требования уплаты, вносить изменения.

7. Speaking. Explain whether each of the following is labor, capital, or a natural resource. Explain your thoughts.



1. An unemployed factory worker.
2. A college professor.
3. The library building on your campus.
4. Yellowstone National Park.
5. An untapped deposit of natural gas.
6. The White House.
7. The local power plant.

8. Using vocabulary in ex.2 match the words with their definitions.

Word	Definition
1. resource	**a.** things that you can get, buy or find; or a person who is free to see and talk to people.
2. labour	**b.** interested in smth.
3. capital	**c.** the knowledge and skill that you have gained through doing smth. for a period of time.
4. available	**d.** the practical use of smth., especially a theory, discovery, etc.
5. concerned	**e.** a supply of smth. that a country, an organization or a person has and can use, especially to increase their wealth.
6. application	**f.** a large amount of money that is invested or is used to start a business.
7. experience	**g.** the ability to do smth. well.
8. skill	**h.** work, especially physical work.

Text 2B



1. Before you start.

- What natural resources do you know?
- Natural resources are means of existence; without them, a man cannot live and he searches them in nature. Express your ideas on this thought.
- How do you understand the fact that natural resources are distributed irregularly on earth? Speak about diverse resource availability.



2. Read the words and learn them by heart. Make up your own sentences with them.

1. **To manufacture** – производить, изготовлять, перерабатывать
2. **Nuisance** – досада, неприятность, помеха, неудобство
3. **To ooze up** – сочиться, медленно вытекать
4. **To be dismayed** – прийти в полное смятение
5. **To be delighted** – быть довольным, быть очарованным

6. **To refine** – очищать, рафинировать, улучшать, облагораживать
7. **To include** – содержать, включать, иметь в своем составе
8. **To implement** – выполнять, осуществлять, привести в исполнение, внедрить
9. **Implementation** – осуществление, внедрение, реализация, воплощение
10. **To expand** – расширять, развивать, распространять
11. **Entrepreneur** – предприниматель, владелец предприятия
12. **Allocation** – размещение, распределение, отчисление
13. **To affect smth.** – влиять, действовать на что-либо



3. Read the text 2B, translate it and compare your ideas in ex.1 with the facts.

Oil as a Natural Resource


http://beyondbordersdotorg.files.wordpre

Let's consider oil. Oil in the ground is a natural resource because it is found (not manufactured) and can be used to produce goods and services. However, 250 years ago oil was a nuisance, not a natural resource. Pennsylvania farmers in the eighteenth century who found oil oozing up through their soil were dismayed, not delighted. No one knew what could be done with the oil. It was not until the mid-nineteenth century that a method was found for refining oil into kerosene that could be used to generate energy, transforming oil into a natural resource. Oil is now used to make all sorts of things, including clothing, drugs, gasoline, and plastic. It became a natural resource because people discovered and implemented a way to use it.

Defining something as a natural resource only if it can be used to produce goods and services does not mean that a tree has value only for its wood or that a mountain has value only for its minerals. If people gain utility from the existence of a beautiful wilderness area, then that wilderness provides a service. The wilderness is thus a natural resource.



http://www.mil.state.vt.us/images/natura

The natural resources available to us can be expanded in three ways. One is the discovery of new natural resources, such as the discovery of a deposit of ore containing titanium. The second is the discovery of new uses for resources, as happened

when new techniques allowed oil to be put to productive use or sand to be used in manufacturing computer chips. The third is the discovery of new ways to extract natural resources in order to use them. New methods of discovering and mapping oil deposits have increased the world's supply of this important natural resource.

(Source: Principles of Microeconomics; http://www.saylor.org)

4. Say if the sentences concerning Text 2B are true or false.



1. Oil can be used to produce goods and services.
2. 250 years ago oil was a great delight.
3. Pennsylvania farmers found oil in the seventeenth century.
4. Farmers were very happy to find oil.
5. People knew at once how to use oil.
6. In the mid-nineteenth century, a method was found for refining oil into kerosene.
7. Oil is now used only in production of fuel.
8. If wilderness provides a service, then it is thus a natural resource.

5. Answer the following questions.

1. What attitude was to oil at first?
2. Who found oil in the eighteenth century?
3. Where is oil used nowadays?
4. How and why did oil become a natural resource?
5. When does a wilderness area become a natural resource?
6. The natural resources available to us can be expanded in three ways, can't they? Describe these three ways.
7. What has increased the world's supply of oil making it important natural resource.

6. Give English equivalents of the following words and word combinations from Text 2B.

Неприятность, просачиваться сквозь землю, метод по переработке нефти, производить энергию, лекарства, внедрить способ, извлекать пользу, местность, нетронутая деятельностью человека, могут быть расширены, открытие новых природных ресурсов, месторождения руды, компьютерная микросхема, извлекать природные ресурсы, мировые запасы нефти.

7. Using vocabulary in ex.2 match the words with their definitions.

Word	Definition
1. to manufacture	**a.** to become greater in size, number or importance.
2. entrepreneur	**b.** to make smth. that has been officially decided start to happen or be used.
3. to expand	**c.** to make goods in large quantities, using machinery.
4. to implement	**d.** a thick liquid that is found in rock underground.
5. dismayed	**e.** a person who makes money by starting or running businesses, especially when this involves taking financial risks.
6. oil	**f.** a worried, sad feeling after you have received an unpleasant surprise.

8. Discuss with the group the following topics:



- What natural resources are used in materials production for construction industry?
- Enumerate the most economical construction materials.
- How do state authorities try to solve the problem of scarcity of natural resources in different countries?

Text 2C



1. Before you start.

- How does the development of technology affect our lives?
- List your own examples when new technological decisions were useful for the society and vice versa, (i.e. our society could easily do without them).



2. Read the words and learn them by heart. Make up your own sentences with them.

1. **Crucial –** решающий, ключевой
2. **To put smth. to work –** применить в деле, заставить работать
3. **Market economy –** рыночная экономика, рыночное хозяйство

4. **Individual –** частное лицо, субъект, физическое лицо
5. **To earn –** зарабатывать, получать доход
6. **To earn profit –** приносить прибыли, давать прибыль
7. **Profitable –** доходный, рентабельный
8. **To respond –** отвечать, соответствовать
9. **Incentive –** стимул, побуждение
10. **To guide one's choice –** направлять свой выбор



3. Read the text 2C, translate it and compare your ideas in ex.1 with the facts.

Technology and the Entrepreneur



http://successfulstartup101.com/wp-conte

Goods and services are produced using the factors of production available to the economy. Two things play a crucial role in putting these factors of production to work. The first is technology, the knowledge that can be applied to the production of goods and services. The second is an individual who plays a key role in a market economy: the entrepreneur. An entrepreneur is a person who, operating within the context of a market economy, seeks to earn profits by finding new ways to organize factors of production. In non-market economies the role of the entrepreneur is played by bureaucrats and other decision makers who respond to incentives other than profit to guide their choices about resource allocation decisions.

The interplay of entrepreneurs and technology affects all our lives. Entrepreneurs put new technologies to work every day, changing the way factors of production are used. Farmers and factory workers, engineers and electricians, technicians and teachers all work differently than they did just a few years ago, using new technologies introduced by entrepreneurs. The music you enjoy, the books you read, the athletic equipment with which you play are produced differently than they were five years ago. The book you are reading was written and manufactured using technologies that did not exist ten years ago. We can dispute whether all the changes have made our lives better. What we cannot dispute is that they have made our lives different.

So key takeaways of factors of production are the following:

• Factors of production are the resources the economy has available to produce goods and services.

• Labor is the human effort that can be applied to the production of goods and services. Labor's contribution to an economy's output of goods and services can be increased either by increasing the quantity of labor or by increasing human capital.

• Capital is a factor of production that has been produced for use in the production of other goods and services.

• Natural resources are those things found in nature that can be used for the production of goods and services.

• Two keys to the utilization of an economy's factors of production are technology and, in the case of a market economic system, the efforts of entrepreneurs.

(Source: Principles of Microeconomics; http://www.saylor.org)

4. Say if the sentences concerning Text 2C are true or false.



1. Goods and services are produced using the factors of growth.
2. The entrepreneur plays a key role in a market economy.
3. An entrepreneur is a person who sits in his office and drinks coffee all day long.
4. The way factors of production are used has not been changed throughout centuries.
5. Technology is the knowledge that can be applied to the production of goods and services.
6. Collaboration of technology and the entrepreneur plays a crucial role in putting factors of production to work.

5. Answer the following questions.

1. How are various goods and services produced?
2. What are two things that play a crucial role in putting factors of production to work?
3. Who is an entrepreneur? What does he aim at during his work?
4. Who plays the role of the entrepreneur in non-market economies?
5. How does the interplay of entrepreneurs and technology affect all our lives?
6. Do you agree with the idea that we can dispute whether all the changes have made our lives better. Give your reasons.

6. Complete the following table.

Verb	Noun	Adjective
manufacture		
	success	
expand		
implement		
		sustainable
	competition	
risk		
consume		
	strength	

7. Which of the following verbs are synonyms? Match these pairs and make your own sentences with them to show you understand their exact meaning. Work with the dictionary to study the exact meaning of the words.

Embrace, contain, incorporate, form, mold, build, set up, include, establish, constitute, compose, consist, construct, embody, comprise, compile.

8. Read and translate into Russian the following word-combinations. Pay attention to the way some words change their meaning depending on the word-combination they are used in.

a) fruit market, at the market, a street market, market stalls, market traders, share of the market, the property market, job market, the global market, domestic market, a growing market, a declining market, black market, on the open market, play the market, in the market for smth., market forces.

b) domestic affairs, domestic politics, domestic flights, domestic appliances, domestic chores, domestic violence, domestic service, domestic help, domestic animal, domestic market.

c) foreign affairs, foreign news, foreign policy, foreign trade, foreign trade, a foreign correspondent, foreign language, foreign market, foreign investments, foreign earnings.

d) a high rate, a low rate, a rising rate, the annual rate, birth rate, success rate, failure rate, advertising rate, insurance rate, postal rate, reduced rate, a fixed-rate mortgage, interest rate, exchange rate, unemployment rate, tax rate, at a rate of knots.



FINAL TASKS

1. Translate the following sentences using the vocabulary of Units 1 and 2.

Part I.

1. Цены на молочные продукты снова вырастут. 2. Мы ожидаем рост цен на продукты питания (a rise in food prices) этой осенью. 3. Люди не ожидали, что темпы инфляции будут такими высокими. 4. Цены на потребительские товары постоянно растут. 5. Потребители выбирают качественные товары по доступной цене. 6. По понедельникам рынок не работает. 7. На мировом рынке представлено огромное количество различных брендов. 8. Газ вырос в цене. 9. Население уменьшилось с 1,9 млн. до 1,3 млн. 10. Нам следует сократить потребление жирного и сладкого.

Part II.

1. 90-е годы 20 века были временем массовой безработицы. 2. В этом магазине предлагают 50% скидку на летнюю коллекцию (to offer a discount). 3. У нас нет свободных ресурсов, чтобы обновить техническое обеспечение лаборатории. 4. Из-за кризиса компания была вынуждена сократить трудовые издержки (costs). 5. Капитальные расходы (expenditures) в этом году составили 37 млн. рублей. 6. Нашей компании нужно изыскать все доступные ресурсы для запуска (start up) нового направления производства. 7. Их больше интересовало, как было одето общество, нежели речь докладчика. 8. Эта компания применяет новые технологии в производстве строительных деталей. 9. Из-за недостатка практического опыта его не взяли на престижную работу. 10. У вас есть опыт работы в сфере экономики?

2. Speaking. Make a presentation on the following topic:

- Choose any product you like and describe it, speak about technological process used in its production.

3. Find all the words and give their translation.

p	**r**	**o**	**d**	**u**	**c**	**t**	**c**	**b**	**a**
e	**e**	**d**	**c**	**o**	**n**	**s**	**u**	**m**	**e**
c	**d**	**e**	**m**	**a**	**n**	**d**	**j**	**m**	**s**
o	**t**	**s**	**u**	**p**	**p**	**l**	**y**	**a**	**e**
n	**r**	**s**	**m**	**o**	**n**	**e**	**y**	**r**	**r**
o	**a**	**g**	**o**	**o**	**d**	**s**	**b**	**k**	**v**
m	**d**	**f**	**s**	**a**	**l**	**e**	**u**	**e**	**i**
y	**e**	**s**	**e**	**l**	**l**	**m**	**y**	**t**	**c**
x	**y**	**p**	**r**	**o**	**d**	**u**	**c**	**e**	**e**
a	**z**	**b**	**u**	**s**	**i**	**n**	**e**	**s**	**s**

1._____ 6._____ 11._____

2._____ 7._____ 12._____

3._____ 8._____ 13._____

4._____ 9._____ 14._____

5._____ 10._____ 15._____

4. Fill in the gaps using the words below:

Resource, capital, application, unemployment, skills, available, manufacturing, experience, labour, discount.

1. Our government carries out special measures to help reduce _____. 2. Do you give any _____ on this car? 3. Time is our most valuable _____ . You should use it deliberately. 4. Some employers use immigrants as cheap _____ . 5. The starting _____ of the business was estimated as $100.000. 6. The pop star was not _____ for taking photos, autographing and giving comments. 7. _____ of this cream will help you to reduce pain in your legs. 8. We all learn by _____ . 9. We need people with practical _____ . 10. Jobs in _____ are not very popular now.

