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Английский язык

Методические указания
для студентов,
обучающихся по специальности 222000,
«Инноватика в строительстве»
(часть 2)



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Кафедра иностранных языков

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Содержат 10 уроков, рассчитанных для активного усвоения. В рамках указанных тем представлена лексика, необходимая для работы с предложенными текстами. Каждая тема содержит предтекстовые задания, текст и послетекстовые лексические, грамматические и речевые упражнения с целью формирования умений чтения, перевода и реферирования технической литературы, а также для развития навыков устной речи в рамках профессионального общения.

Предназначены для студентов дневного обучения специальности 222000 «Инноватика в строительстве».

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ВВЕДЕНИЕ

Важным компонентом в обучении иностранному языку в строительном вузе является овладение базовыми понятиями, знание технологий строительного производства, что необходимо для студентов всех специальностей. Но для студентов специальности «Инноватика в строительстве» необходимы еще более широкие знания и представления о развитии современных технологий, их применении в различных областях строительства.

В связи с этим в данных методических указаниях представлены тексты освещающие вопросы инноватики, ее источники, цели и задачи, раскрывающие суть инновационного процесса.

Разнообразные упражнения способствуют продуктивному усвоению лексических единиц по темам, особое внимание уделяется интернациональной лексике и развитию речевых навыков в профессиональной сфере.

Задания на извлечение ключевой информации формируют реферативные навыки и несут прикладной характер. Упражнения по профессиональному переводу способствуют развитию концептуального мышления, а самостоятельные поисковые задания важны для приобретения и развития навыков поиска материала в Интернете и самостоятельной работы с ним.

Данная методическая разработка является актуальной для студентов специальности «Инноватика в строительстве», также она может быть интересна и полезна более широкому кругу студентов других специальностей, поскольку предлагает обширную познавательную информацию.

LESSON 1. WHAT IS INVENTION?

Упражнения

.Найдите английские эквиваленты следующим русским словам:

усовершенствование	improve, improvement, improving
достигать	achievable, achieve, achievement
полностью	completely, complete, completion
дополнение	add, additive, addition
полезный	use, useful, usage
защита	protected, protection, protect
творение	creative, creativity, creation
различный	different, difference, differentiate

2.Переведите следующие слова, обращая внимание на суффиксы и префиксы:

discovery, feeling, thinking, invention, composition, improvement, completely, radical, cultural, innovative, useful, capability, protection, creative, possibility, connection, frequently, different, normally, inventor, disregard, distinctly.

3. От данных глаголов образуйте существительные при помощи суффиксов и переведите их:

а) –ment;

improve, achieve, accomplish, remove, base, establish, displace;

б) –(t)ion;

invent, compose, derive, innovate, adopt, extend, add, protect, connect, combine, separate,

4.Прочитайте и запомните неизвестные вам слова:

run ahead – опережать	obvious – очевидный
device – прибор, устройство	to obtain –
composition – состав	beyond –
to derive from – происходить от	frequently – часто
breakthrough – прорыв	to involve – вовлекать
to extend – расширять(ся)	realm –
experience – опыт	to disregard -
capability – способность	

5.Внимательно прочитайте текст и переведите его.

а) Постарайтесь пояснить эпиграф своими словами.

б) Ответьте на поставленные в конце текста вопросы.**TEXT: WHAT IS INVENTION?**

“All great discoveries are made by men whose
feelings run ahead of their thinking”
Charles Parkhurst (1842-1933)

An **invention** is a unique or novel device, method, composition, process or discovery. It may also be an improvement or alternate means of achieving a desired result or function. An invention that is not derived from an existing model or idea, or that achieves a completely unique function, discovery, or result, may be a radical breakthrough. In addition, there is cultural invention, which is an innovative set of useful social behaviors adopted by people and passed on to others. Inventions often extend the boundaries of human knowledge, experience or capability. An invention that is novel and not obvious to others skilled in the same field may be able to obtain the legal protection of a patent.

Invention is a creative process. An open and curious mind allows an inventor to see beyond what is known. Seeing a new possibility, connection, or relationship can spark an invention. Inventive thinking frequently involves combining concepts or elements from different realms that would not normally be put together. Sometimes inventors disregard the boundaries between distinctly separate territories or fields.

Unfortunately, we remember not the inventors of common things for our daily needs that we are accustomed to use every day but either developers or producers of those items. Names of those inventors do not always remain in our memory. We use mobile phone, automatic dishwasher, Walkman, CD-player, MP3-player, karaoke machine, microwave oven, personal computer, vacuum cleaner in our life. Which of these inventions do you think useful? Which could you do without?

6. Выберите нужное по смыслу слово в следующих предложениях:

1. All great discoveries are made by men whose (feelings, ideas) run ahead of their thinking. 2. (An, a) (invention, activity) is a unique or novel device, method, composition, process or discovery. 3. In addition, there is (political, cultural) invention, which is an innovative set of useful social behaviors adopted by people and passed on to others. 4. Inventions often (inhibit, extend) the boundaries of human knowledge, experience or capability. 5. Invention is a (creative, routine) process. 6. (Predicting, seeing) a new possibility, connection, or relationship can spark an invention. 7. We often remember not the (inventors, developers) of common things.

7.a) Подтвердите или б) опровергните следующие утверждения, начав свое высказывание соответствующей фразой:

a) I think, you're right.

б) I am afraid, I don't agree.

1. An invention can be a unique process or discovery. 2. Development of existing model or idea cannot be an invention. 3. Cultural invention is a set of unique

discoveries in culture. 4. Keeping old traditions and customs can spark an invention. 5. We always remember the inventors of common things for our life. 6. Some inventions are useful for us, the others are not very important .

8. Найдите предложенным вопросам соответствующие ответы, данные ниже:

1. What is an invention?
2. What kind of invention may be a radical breakthrough?
3. How do you understand cultural invention?
4. How can an invention be correlated with a patent?
5. Why is invention a creative process?
 - a) Because an inventor involves different realms which can't normally be put together and disregards the boundaries between separate territories.
 - b) It is an innovative set of useful social behaviors adopted by people and passed on to others.
 - c) It is a unique device, method, composition, process or discovery.
 - d) An invention that is novel and not obvious to others may obtain the legal protection of a patent.
 - e) An invention that is not derived from an existing model or idea, or completely unique, may be a radical breakthrough.

9. Переведите предложения, обращая внимание на –ing формы:

1. Invention may be an improvement or alternate means of achieving a desired result.
2. An invention that is not derived from an existing model or idea may be a radical breakthrough.
3. Seeing a new possibility, connection, or relationship can spark an invention.
4. Inventive thinking frequently involves combining concepts or elements from different realms.

10. Что бы вы рассказали об изобретении, если бы вас попросили выступить с докладом на научно-практической конференции? Какие бы вы привели примеры изобретений? Почему именно их? Обоснуйте свой ответ.

LESSON 2. THE COMPOUNDS OF INVENTION

Упражнения

1. Найдите корни в следующих словах: insight, invention, unusual, accidental, useful, conductive, inventor.

Знаете ли вы их значение?

2. Переведите на русский язык следующие фразы:

Begin with (by), an exploratory process, have to be developed, to improve something by making it, by accidentally adding.

3. Найдите в каждом ряду существительное:

1.a) invent	b) invention	c) invented
2.a) recognize	c) recognition	b) useful
b) recognizing	3.a) use	c) usefulness
4.a) scientist	b) science	c) scientific
5.a) electrically	b) electricity	c) electrical
6.a) innovative	b) innovation	c) innovate
7.a) complete	b) completeness	c) completely
8.a) confidence	b) confidently	c) confident
9.a) improving	b) improvement	c) improved
10.a) difference	b) different	c) differently

4. Переведите следующие предложения, обращая внимание на глагол to be:

1. Insight is also a vital element of invention. 2. Invention is often an exploratory process. 3. There are failures as well as successes. 4. Inventors are often famous for their confidence, their perseverance and their passion. 5. An invention is a unique or novel device, method, composition, process or discovery. 6. Cultural invention is an innovative set of useful social behaviors adopted by people and passed on to others. 7. Invention is a creative process.

5. Запомните новые для вас слова:

compound – составляющая	to recognize – признавать
insight – проницательность	outcome – результат
vital – жизненно необходимый	inspiration – вдохновение
doubt – сомнение	property – свойство
hunch – догадка	

6. Прочитайте и переведите текст.

TEXT: THE COMPOUNDS OF INVENTION

Insight is also a vital element of invention. It may begin with questions, doubt or a hunch. It may begin by recognizing that something unusual or accidental may be useful or that it could open a new avenue for exploration. For example, the odd metallic color of plastic made by accidentally adding a thousand times too much catalyst led scientists to explore its metal-like properties, inventing electrically conductive plastic and light emitting plastic—an invention that won the Nobel Prize in 2000 and has led to innovative lighting, display screens, wallpaper and much. Invention is often an exploratory process, with an uncertain or unknown outcome. There are failures as well as successes. Inspiration can start the process, but no matter how complete the initial idea, inventions typically have to be developed. Inventors are often famous for their confidence, their perseverance and their passion.

Inventors may, for example, try to improve something by making it more effective, healthier, faster, more efficient, easier to use, serve more purposes, longer

lasting, cheaper, more ecologically friendly, or aesthetically different, lighter weight, more ergonomic, structurally different, with new light or color properties, etc. Entirely new invention may be created such as the Internet, email, the telephone, or electric light.

7. Поставьте разделительные вопросы к следующим предложениям.

Образец: Insight is also a vital element of invention. - Insight is also a vital element of invention, isn't it?

1. There are failures as well as successes. 2. Inspiration can start the process. 3. Inventions typically have to be developed. 4. Inventors try to improve something by making it more effective, efficient, cheaper. 5. Something unusual in a common thing leads to explore it.

8. Закончите следующие предложения, исходя из содержания текста.

1. Insight is a ... element of invention. 2. It may begin with ..., ..., a ... or by ... that something unusual or accidental may be useful. 3. Invention is often an exploratory process, with an ... or ... outcome. 4. ... can start the process. 5. Inventors are often famous for their ..., ... and their passion. 6. Inventors may ... something by making it more effective, healthier, faster, more efficient, easier to use. 7. Entirely new invention may be

9. Составьте и запишите реферат на английском языке по теме данного урока. Используйте следующие клише:

The text is titled ...

It is devoted to ...

It deals with ...

The author pays attention to...

In conclusion the author says ...

10. Что же представляет из себя изобретение? Этот вопрос задают вам как представителю патентной организации и вам нужно объяснить суть вопроса на английском языке. Следующие ключевые слова помогут вам в этом:

Insight, question, doubt, hunch, recognizing of unusual or accidental, exploratory process, uncertain outcome, inspiration, effective, efficient, longer lasting, ecologically friendly, aesthetically different, ergonomic, structurally different.

LESSON 3. THE PECULIARITIES OF INVENTION

Упражнения

1. Переведите на русский язык слова с интернациональными корнями.

Experimentation, instinct, interest, idea, problem, focus, moment, general, theory, giant.

2. Найдите соответствия английским фразам из приведенных русских фраз.

Childhood curiosity	Решение пришло
Develop instinct	Увидеть по-новому
Inner need	Идеи могут возникать
To see anew	Развивать инстинкт
Ideas can arise	Детское любопытство
Come in a flash	Вспыхнуть
Solution came	Внутренняя потребность

3. Образуйте при помощи суффиксов: а) –able (-ible) прилагательные, б) –ness существительные и переведите их на русский язык.

a) play, solve, access, suit, prefer, accept, consider, remove, desire, permit;

b) cheap, effective, hard, light, thick, steady, rapid.

4. Выучите необходимые для понимания темы слова.

Peculiarity	– особенность
curiosity	– любопытство
imagination	– воображение
inner	– внутренний
according to	– в соответствии
obsession	– навязчивая идея
relativity	– относительность
accidental	– случайный

5. Прочитайте и переведите текст. Скажите, что способствует изобретательству?

TEXT: THE PECULIARITIES OF INVENTION

Play can lead to invention. Childhood curiosity, experimentation, and imagination can develop one's play instinct—an inner need according to Carl Jung. Inventors feel the need to play with things that interest them, and to explore, and this internal drive brings about novel creations. Thomas Edison said, "I never did a day's work in my life, it was all fun". Inventing can also be an obsession.

To invent is to see anew. Inventors often envision a new idea, seeing it in their mind's eye. New ideas can arise when the conscious mind turns away from the subject or problem, when the inventor's focus is on something else, or while relaxing or sleeping. A novel idea may come in a flash—an Eureka! moment. For example, after years of working to figure out the general theory of relativity, the solution came to Einstein suddenly in a dream "like a giant die making an indelible impress, a huge map of the universe outlined itself in one clear vision". Inventions can also be accidental, such as in the case of polytetrafluoroethylene (Teflon).

6. Что вы можете сказать по поводу следующих слов: *can, may, must, should*. Каковы их эквиваленты в русском языке? Существуют ли модальные глаголы в русском языке?

а) Переведите следующие предложения с модальными глаголами.

1. You may open the window. 2. We must visit the doctor. 3. He shouldn't go there. 4. Building materials should meet several requirements. 5. Spray may be preferable in extinguishing fires. 6. It must be remembered about danger. 7. Escape routes must lead away. 8. We can see this project in a new scientific edition.

б) Найдите в тексте предложения со словами *can, may, must, should* и переведите их на русский язык.

7. Закончите следующие предложения, исходя из содержания текста:

1. Play can lead to 2. Childhood curiosity, experimentation, and imagination develop 3. The internal drive brings about 4. To invent is to 5. New ideas can arise when the conscious mind turns away from 6. A novel idea may come in 7. Inventions can also be

8. Найдите в тексте ответы на следующие вопросы:

1. Что способствует развитию игрового инстинкта? 2. Что значит – изобретать? 3. Когда возникают новые идеи? 4. Каковы истоки теории относительности Эйнштейна?

9. Как вы объясните следующую фразу Томаса Эдисона “I never did a day's work in my life, it was all fun”?

10. Охарактеризуйте особенности изобретения, используя фразы, используемые в монологической речи:

It should be said that ...	Следует сказать, что ...
It is interesting to note that ...	Интересно отметить, что ...
As far as I know ...	Насколько мне известно ...
As far as I remember ...	Насколько я помню ...
In other words ...	Другими (иными) словами ...

LESSON 4. WAYS OF MAKING INVENTIONS

Упражнения

1. Подберите к русским словам английские эквиваленты из текста.

Идея, компьютер, модель, экспериментирование, тестирование, процесс, дизайнер, архитектор, патент, практический.

2. Переведите следующие фразы на русский язык:

the idea may be developed, can spark new ideas, are frequently used, keep records, idea may change.

3. Отработайте произношение новых для вас слов и запомните их:

trial –испытание

collaborative –совместный

error –ошибка

frequently – часто

to spark –вспыхивать

to lead –приводить к, вести к

previously –прежде

4. Внимательно прочитайте текст и переведите его:**TEXT: WAYS OF MAKING INVENTIONS**

The idea for an invention may be developed on paper or on a computer, by writing or drawing, by trial and error, by making models, by experimenting, by testing and/or by making the invention in its whole form. Brainstorming also can spark new ideas for an invention. Collaborative creative processes are frequently used by designers, architects and scientists. Co-inventors are frequently named on patents. Now it is easier than ever for people in different locations to collaborate. Many inventors keep records of their working process – in notebooks, photos, etc., including Leonardo da Vinci, Thomas Jefferson and Albert Einstein. In the process of developing an invention, the initial idea may change. The invention may become simpler, more practical, it may expand, or it may even *morph* into something totally different. Working on one invention can lead to others too. There is only one country in the world that will grant patent rights for an invention that continues part of an invention in a previously-filed patent—the United States.

5. Выпишите из текста слова, образованные суффиксальным способом и проанализируйте их.

Например: ‘making’ – Gerund – образовано от глагола ‘to make’ при помощи суффикса –ing; ‘invention’ – noun – образовано от глагола ‘to invent’ при помощи суффикса –tion.

6. Найдите в тексте предложения, содержащие –ing-формы. Какой частью речи являются данные слова и как они переводятся на русский язык?

(Ing-форма может быть причастием, герундием, либо существительным)

Приведите свои примеры причастия, герундия, существительного.

7. Закончите предложения, используя словосочетания, приведенные ниже:

1. The idea for an invention may be developed 2. Brainstorming also can spark 3. Collaborative creative processes are frequently 4. In the process of developing an invention 5. The invention may become 6. Working on one invention can

a) ... lead to others too.

b) ... by designers, architects and scientists.

c) ... by making models, by experimenting.

d) ... new ideas for an invention.

e) ... simpler, more practical, expand.

f) ... the initial idea may change.

8.Переведите на английский язык следующие предложения:

1. Идея изобретения может быть разработана на бумаге или в компьютере, путем создания моделей, экспериментирования или тестирования. 2. Совместные креативные процессы часто используются дизайнерами, архитекторами и учеными. 3. На патентах часто написаны имена соизобретателей. 4. Многие изобретатели хранят записи своего рабочего процесса. 5. В процессе разработки изобретения изначальная идея может измениться. 6. Изобретение может стать проще, практичнее или превратиться во что-то совершенно другое.

9.Ответьте на вопросы по-английски:

1. How may the idea for an invention be developed? 2. What can spark new ideas? 3. Who are collaborative creative processes used by? 4. Who is frequently named on patents? 5. What do many inventors do? 6. When may the initial idea change? 7. What can happen to the invention? 8. How can different inventions be connected? 9. Where are patent rights for an invention granted?

10.Каковы способы создания изобретений? Изложите кратко с использованием следующих ключевых фраз:

may be developed on, by making, can spark new ideas, keep records, the initial idea, may become, can lead to.

LESSON 5. THE FATE OF INVENTIONS

Упражнения

1.Переведите следующие предложения, обращая внимание на модальные глаголы:

1. The creation of an invention can be affected by practical considerations. 2. Some barriers can appear. 3. Inventions may also become more useful after time passes. 4. Some invention ideas can obtain patent protection. 5. An invention can serve many purposes. 6. These purposes may change over time.

2.Найдите в каждом ряду существительное:

- | | | |
|---------------------|---------------|-----------------|
| 1. a) creative | b) creativity | c) create |
| 2. a) affect | b) effect | c) affected |
| 3. a) investor | b) invest | c) include |
| 4. a) disappear | b) appearance | c) appear |
| 5. a) development | b) develop | c) developing |
| 6. a) significantly | b) signify | c) significance |
| 7. a) protection | b) protected | c) protective |
| 8. a) grow | b) growth | c) growing |

3. Найдите в тексте и выпишите английские слова, наиболее близкие однокорневым русским по значению. Прочитайте их вслух согласно правилам чтения.

Образец: idea, principle, practical, ...

4. Найдите в тексте наречия и охарактеризуйте их по способу образования.

Например: 'commonly' образовано от прилагательного 'common' при помощи суффикса -ly.

5. Отработайте произношение новых для вас слов и запомните их:

fate – судьба

to occur – случаться, происходить

consideration – соображение

to erode – подрывать, размывать

advancement – продвижение

terrific – потрясающий

to envision – рассматривать

6. Внимательно прочитайте текст и переведите его. Приведите свои примеры изобретений. Какова их судьба?

TEXT: THE FATE OF INVENTIONS

The creation of an invention and its use can be affected by practical considerations. Visionary inventors commonly collaborate with technical experts, manufacturers, investors and/or business people to turn an invention from idea into reality, and possibly even to turn invention into innovation. Nevertheless, there are inventions that are too expensive to produce and inventions that require scientific advancements that have not yet occurred. These barriers can erode or disappear as the economic situation changes or as science develops. But history shows that turning the idea of an invention into reality is not always a direct process, even for terrific inventions. It took centuries for some of Leonardo da Vinci's inventions to become reality. Inventions may also become more useful after time passes and other changes occur. For example, the parachute became more useful once powered flight was a reality. Some invention ideas that have never been made in reality can obtain patent protection. An invention can serve many purposes. These purposes might differ significantly and they may change over time. An invention, or a further-developed version of it, may serve purposes never envisioned by its original inventor(s) or even by others living at the time of its original invention. As an example, consider all the kinds of plastic developed, their innumerable uses, and the tremendous growth this material invention is still undergoing today.

7. Вставьте нужное по смыслу слово:

1. The creation of an invention can be (affected, affecting) by practical considerations.
2. Visionary (inventions, inventors) commonly collaborate with technical experts.
3. There are inventions that are too (cheap, expensive) to produce.
4. Turning the idea of an invention into (reality, real) is not always a direct process.
- 5.

Inventions may also become more (pleasant, useful) after time passes. 6. Some invention ideas can (give, obtain) patent protection.

8. Переведите на английский язык следующие предложения:

1. Изобретатели зачастую сотрудничают с техническими экспертами, производителями, инвесторами и бизнесменами. 2. Некоторые изобретения слишком дорогие для внедрения. 3. Возникающие препятствия исчезают по мере изменения экономической ситуации. 4. Воплощение идеи изобретения в реальность не всегда простой процесс. 5. Изобретения могут стать более полезными по прошествии времени. 6. Цели, которым служат изобретения, могут меняться со временем.

9. Задайте собеседнику вопросы, исходя из нижеприведенных предложений. (Иногда может получиться не один вопрос из каждого предложения.)

1. The creation of an invention can be affected by practical considerations. 2. Inventors commonly collaborate with technical experts, manufacturers, investors and/or business people to turn an invention from idea into reality. 3. But turning the idea of an invention into reality is not always a direct process. 4. Inventions may also become more useful after time passes and other changes occur. 5. Some invention ideas that have never been made in reality can obtain patent protection. 6. An invention, may serve purposes never envisioned by its original inventor.

10. Можете ли вы привести примеры изобретений, роль которых изменилась со временем.

LESSON 6. IMPLEMENTATION

Упражнения

1. Переведите следующие слова, обращая внимание на суффиксы и префиксы:

implementation, invention, different, simply, performance, artistic, beneficial, externality, systematic, investment, resources.

2. Подберите к русским словам английские эквиваленты из текста.

Лицензированы, гранты, ассоциации, клубы, инкубаторы, ресурсы, экономический, транзакция, центральный, позитивный, систематический, патент, оптимальный, процесс.

3. Запомните новые для вас слова:

implementation – воплощение

externality – внешняя сторона

funding – финансирование

to capture – схватить, захватить

4. Прочитайте и переведите текст. Каков путь изобретений?

TEXT: IMPLEMENTATION

Inventions get out into the world in different ways. Some are sold, licensed or given away as products or services. Simply exhibiting visual art, playing music or having a performance gets many artistic inventions out into the world. Believing in the success of an invention can involve risk, so it can be difficult to obtain support and funding. Grants, inventor associations, clubs and business incubators can provide the mentoring, skills and resources some inventors need. Success at getting an invention out into the world often requires passion for it and good entrepreneurial skills. In economic theory, inventions are one of the chief examples of "positive externalities", a beneficial side-effect that falls on those outside a transaction or activity. One of the central concepts of economics is that externalities should be internalized—unless some of the benefits of this positive externality can be captured by the parties, the parties will be under-rewarded for their inventions, and will lead to under-investment in activities that lead to inventions. The patent system captures those positive externalities for the inventor or other patent owner, so that the economy as a whole will invest a more-closely-optimum amount of resources in the process of invention.

5. Задайте различные типы вопросов к нижеприведенным предложениям. Обратите внимание на предложения с глаголом to be и модальными глаголами, которые сами участвуют в постановке вопроса.

Образец: Play leads to invention. – Play leads to invention, doesn't it? What leads to invention? Does play lead to invention? Does play or work lead to invention? What does play lead to? Can you tell me what play leads to?

1. Inventions get out into the world in different ways. 2. Grants, inventor associations, clubs and business incubators can provide the skills and resources some inventors need. 3. In economic theory, inventions are one of the chief examples of "positive externalities". 4. The patent system captures positive externalities for the inventor or other patent owner. 5. The economy can invest a more-closely-optimum amount of resources in the process of invention.

6. а) Подтвердите или б) опровергните следующие утверждения, начав свое высказывание соответствующей фразой:

а) I think, you are right

б) I'm afraid, I don't agree

1. All inventions are sold as products or services. 2. It can be difficult to obtain support and funding for invention. 3. Scientific work can provide skills and resources some inventors need. 4. Inventions are one of the chief examples of "negative externalities". 5. Externalities should be internalized. 6. The patent system captures positive externalities for the inventor.

7. Заполните пропуски подходящими по смыслу словами, данными ниже:

1. Inventions ... into the world in different ways. 2. It can be difficult to obtain ... and funding. 3. Grants, inventor associations, clubs and business incubators can ... the mentoring, skills and resources some inventors need. 4. One of the central ... of economics is that externalities should be internalized. 5. The patent system captures positive externalities for the ... or other patent owner.

Concepts, get out, inventor, support, provide.

8. Ответьте на вопросы, используя вводные фразы *it should be said, it is noted that, it is important to stress (underline)*.

1. How do inventions get out into the world? 2. Is it easy to obtain support and funding? 3. What can provide the mentoring, skills and resources some inventors need? 4. What is one of the central concepts of economics? 5. Who does the patent system capture positive externalities for?

9. Какой бы вывод вы сделали после всего изложенного в тексте? Используйте в своем ответе следующие фразы:

In conclusion I'd like to say that ...

It should be underlined that ...

To my opinion ... the problem (question) of ... is of great interest.

We can come to the conclusion that ...

10. Придумайте диалог в парах по тексту Implementation, используя в своих репликах следующие фразы:

-What do you know about ...?

-(Is it) really?

-And what about ...?

-There's no doubt about it –

-To all this must be added that ...

-If I'm not mistaken ...

Что ты знаешь о ...?

Разве это так, (Это правда?)

А что касается ..?

В этом нет сомнения

Ко всему этому следует добавить,
что ...

Если я не ошибаюсь...

LESSON 7. PATENT**Упражнения****1. Прочитайте интернациональные слова и определите их значение.**

Patent, exclusive, sovereign, limited, period, public, procedure, national, international, distribute, organization, aspect, intellectual, technology, minimum, business, computer, program, process, machine, formal, biological, method, chemical, type, industrial, design, model, inspection, version, person.

2.Правильно переведите следующие фразы, обращая внимание на предлоги:

a form of intellectual property, exclusive rights granted by a sovereign state, for a limited period of time, in exchange, according to national laws and international agreements, without permission, are excluded from patents, originates from, for public reading.

3.Выучите следующие слова, необходимые для понимания текста:

disclosure – раскрытие

agreement – соглашение

extent – степень

permission – позволение

to vary – различаться

particular – особенный

4.Прочитайте и переведите текст. Какие требования к патенту предъявляются Всемирной Торговой Организацией?

TEXT: PATENT

A **patent** is a form of intellectual property. It consists of a set of exclusive rights granted by a sovereign state to an inventor or their assignee for a limited period of time in exchange for the public disclosure of an invention.

The procedure for granting patents, the requirements placed on the patentee, and the extent of the exclusive rights vary widely between countries according to national laws and international agreements. The exclusive right granted to a patentee in most countries is the right to prevent others from making, using, selling, or distributing the patented invention without permission.

Under the World Trade Organization's (WTO) Agreement on Trade-Related Aspects of Intellectual Property Rights, patents should be available in WTO member states for any inventions, in all fields of technology, and protection available should be a minimum of twenty years. The term *patent* usually refers to an exclusive right granted to anyone who invents any new, useful, and non-obvious process, machine, article of manufacture, or composition of matter, or any new and useful improvement thereof, and claims that right in a formal patent application. Examples of particular species of patents for inventions include biological patents, business method patents, chemical patents and software patents.

Some other types of intellectual property rights are referred to as *patents* in some jurisdictions: industrial design rights are called *design patents* in some jurisdictions (they protect the visual design of objects that are not purely utilitarian), plant breeders' rights are sometimes called *plant patents*, and utility models or *Gebrauchsmuster* are sometimes called *petty patents* or *innovation patents*.

The word *patent* originates from the Latin *patere*, which means "to lay open" (i.e., to make available for public inspection), and more directly as a shortened version of the term *letters patent*, which originally denoted an open for public reading royal decree granting exclusive rights to a person.

5. Вставьте нужное по смыслу слово.

1. A patent is a form of (intellectual, intelligence, intellect) property. 2. The procedure for granting patents (various, vary, variety) widely between countries. 3. The exclusive right granted to a patentee is the right to (prevention, prevent, preventive) others from making, using, selling, or distributing the patented invention without permission. 4. The term *patent* usually refers to an exclusive right granted to anyone who invents any new, (useful, usage, using) and non-obvious one. 5. The word *patent* originally (denote, denoting, denoted) an open for public reading.

6. Составьте предложения из следующих слов:

1. Form, property, a, is, patent, a, of, intellectual.
2. Vary, procedure, the, granting, for, widely, patents.
3. Excluded, are, patents, certain, from, areas, subject.
4. Patent, refers, an, right, to, who, any, the, usually, to, exclusive, granted, anyone, invents, term, new.
5. Word, patere, originates, from, the, patent, the, Latin.

7. Усомнитесь в содержании следующих высказываний, преобразовав их в общие вопросы.

1. A patent is a form of intellectual property, 2. A patent consists of a set of exclusive rights granted by a sovereign state to an inventor. 3. The procedure for granting patents vary widely between countries. 4. Patents should be available in WTO member states for any inventions, in all fields of technology. 5. The term *patent* usually refers to an exclusive right granted to anyone who invents any new, useful, and non-obvious process, machine, article of manufacture. 6. The word *patent* originates from the Latin *patere*, which means “to lay open”.

8. Переведите на английский язык следующие предложения по теме:

1. Патент – это форма интеллектуальной собственности. 2. Процедура предоставления патента варьируется в разных странах в зависимости от государственного законодательства и международного соглашения. 3. Патент представляет из себя исключительное право, дарованное тому, кто изобретает что-то новое, полезное, неординарное. 4. Слово «патент» происходит от латинского «патере» - «выставлять напоказ».

9. Ответьте на следующие вопросы:

1. What kind of property is a patent? 2. What does it consist of? 3. Does the procedure for granting patents vary in different countries? 4. What is the period of protection available for patents? 5. What does the term patent refer to? 6. What are design patents? 7. What is the origin of the word *patent*?

10. Составьте и запишите реферат на английском языке по теме данного урока. Используйте следующие клише:

This text is titled ...

It is devoted to ...

It deals with ...

The author pays attention to ...

The author says about ...

The text touches upon ...

LESSON 8. THE RULES OF PATENT

Упражнения

1. Найдите соответствия:

a patent provides the right

делиться деталями

a limited property right

ограниченное право собственности

in exchange for the agreement

усовершенствования изобретений

to share the details

патент предоставляет право

to exploit the patent

использовать патент

improvements of prior inventions

в обмен на соглашение

2. Обратите внимание на интернациональную лексику.

Patent, import, term, date, limited, details, public, licensed, original.

3. Выучите основные понятия.

to offer – предлагать

to assign – поручать предписывать

sale - продажа

to abandon – отказать(ся)

maintenance – обслуживание

feature – особенность

fee – гонорар

to assume – предполагать, допускать

to mortgage – закладывать

4. Прочитайте и переведите текст. Какие права дает патент?

TEXT: THE RULES OF PATENT

A patent is not a right to practice or use the invention. Rather, a patent provides the right to *exclude others* from making, using, selling, offering for sale, or importing the patented invention for the term of the patent, which is usually 20 years from the filing date subject to the payment of maintenance fees. A patent is, in effect, a limited property right that the government offers to inventors in exchange for their agreement to share the details of their inventions with the public. Like any other property right, it may be sold, licensed, mortgaged, assigned or transferred, given away, or simply abandoned.

A patent being an exclusionary right does not, however, necessarily give the owner of the patent the right to exploit the patent. For example, many inventions are improvements of prior inventions that may still be covered by someone else's patent. If an inventor takes an existing, patented mouse trap design, adds a new feature to make an improved mouse trap, and obtains a patent on the improvement, he or she

can only legally build his or her improved mouse trap with permission from the patent holder of the original mouse trap, assuming the original patent is still in force. On the other hand, the owner of the improved mouse trap patent can exclude the original patent owner from using the improvement.

5. Заполните пропуски подходящими по смыслу словами, данными ниже.

1. A patent provides the right to ... others from making, using, selling, offering for sale, or importing the patented invention. 2. A patent is a ... property right in exchange for their agreement to share the details of their inventions with the public. 3. Patent may be sold, licensed, mortgaged, assigned or transferred, given away, or simply 4. The owner of the ... patent can exclude the original patent owner from using the improvement.

Limited, exclude, improved, abandoned.

6. Соедините разрозненные части предложений.

1. A patent is not a right to practice ...
2. A patent is a limited property right that the government offers to inventors in exchange for their agreement...
3. A patent provides the right to exclude others from making, using, selling, offering for sale, or importing the patented invention...
4. It may be sold, licensed, mortgaged, assigned or transferred, given away, or ...
5. A patent does not necessarily give the owner of the patent ...
6. Many inventions are improvements of prior inventions that ...
7. If an inventor takes an existing patented design and adds a new feature to make an improved thing ...

- a)... he obtains a patent on the improvement.
- b)... or use the invention.
- c)... the right to exploit the patent.
- d)... may still be covered by someone else's patent.
- e)... to share the details of their inventions with the public.
- f)... simply abandoned.
- g)...for the term of the patent.

7. Поставьте 8 вопросов к тексту, а ваш собеседник постарается ответить на них. Следующие подсказки помогут вам.

1. Does a patent give a right ... ?
2. What does a patent ... ?
3. What does the government ... ?
4. What are many ... ?
5. What can be done ... ?
6. Does the owner of the patent ... ?
7. How does the patent ... ?
8. Can the owner of the improved ... ?

8. Переведите на английский язык следующие предложения по теме:

1. Патент обеспечивает право исключать других от использования, либо продажи изобретения, как правило, на срок до 20 лет.
2. Патент – это ограниченное право собственности, которое правительство предлагает изобретателю.
3. Как любое другое право собственности оно может быть продано, поручено, передано, заложено.
4. Но патент не обязательно предоставляет его владельцу право на пользование.
5. Если изобретатель усовершенствует какое-либо изобретение, то на новое изобретение не распространяются права прежнего изобретателя.

9. Расскажите кратко по-английски о сути патента и правах его владельца.**Используйте в своем ответе следующие фразы:**

the right to exclude others, a limited property right, to share the details, the right to exploit the patent, improvements of prior inventions, permission from the patent holder, exclude the original patent.

10. Найдите информацию и подготовьте сообщение о каком-либо запатентованном и усовершенствованном впоследствии изобретении.**LESSON 9. HISTORY OF PATENT LAW**

Упражнения

1. Найдите корни в следующих словах: southern, inventive, lawyer, requirement, description.

Знаете ли вы их значение?

2. Подберите к русским словам английские эквиваленты из текста.

Архитектор, лицензия, проект, система, основан (базируется).

3. Переведите следующие фразы на русский язык:

a three-year patent; colored glass; to prevent smb from using smth; traced back.

4. Выберите правильный русский вариант перевода фразы на английском языке.

...encouragement was held out to all who...

- а) ...поощрения заслуживали те, кто...
- б) ...награды заслуживали те, кто ...
- в) ...порицания заслуживали те, кто...

...introducing the making of colored glass...

- а) ...запрет на производство цветного стекла...
- б) ...лицензия на производство цветного стекла...
- в) ...внедрение производства цветного стекла...

...enacted a decree...

- а) ...запретил законом...
- б) ...ввел закон ...
- в) ...продлил закон...

...developed the requirement...

- а) ...распространил требование...
- б) ...разработал инструкцию ...
- в) ...разработал требование...

5.Отработайте произношение новых для вас слов и запомните их:

encouragement - поощрение	to enact – вводить, утверждать
refinement – усовершенствование	to submit – представлять на
luxury - роскошь	рассмотрение
to secure – обеспечивать, закреплять	

6.Прочитайте и переведите текст.

TEXT: HISTORY OF PATENT LAW

In 500 BC, in the Greek city of Sybaris (located in what is now southern Italy), "encouragement was held out to all who should discover any new refinement in luxury, the profits arising from which were secured to the inventor by patent for the space of a year."

The Florentine architect Filippo Brunelleschi received a three-year patent for a barge with hoisting gear, that carried marble along the Arno River in 1421. In 1449, King Henry VI granted the first patent with a license of 20 years to John of Utynam for introducing the making of colored glass to England.

Patents in the modern sense originated in 1474, when the Republic of Venice enacted a decree that new and inventive devices, once put into practice, had to be communicated to the Republic to obtain the right to prevent others from using them.

England followed with the Statute of Monopolies in 1624 under King James I, which declared that patents could only be granted for "projects of new invention." During the reign of Queen Anne (1702–14), the lawyers of the English Court developed the requirement that a written description of the invention must be submitted. The patent system in many other countries, including Australia, is based on British law and can be traced back to the Statute of Monopolies.

7.Закончите предложения, используя соответствующий по смыслу вариант.

1. In 500 BC ... was held out for any new refinement.
 - a) encouragement;
 - b) punishment.
2. In ... the Republic of Venice enacted a decree on patent right.

- a) 1421;
- b) 1474.
- 3. ... granted patents only for projects of new invention.
 - a) France;
 - b) England.
- 4. The ... description of the invention must be submitted.
 - a) oral;
 - b) written.
- 5. The patent system in Australia is based in on ... law.
 - a) its own;
 - b) British.

8. Проследите историю развития патента по следующим высказываниям и найдите подтверждение этому в тексте.

1. The granting of patent in ancient Italy. 2. Patent in Florence. 3. Origin of modern patents. 4. Development of patents in England.

9. Задайте собеседнику следующие вопросы:

- 1. When and where encouragement was held out for any new refinement?
- 2. Who received a three-year patent in 1421?
- 3. What did King Henry V1 grant the first patent for?
- 4. When did patents in the modern sense originate?
- 5. What country declared that patents could only be granted for "projects of new invention"?
- 6. What requirement was developed by the lawyers of the English Court?
- 7. Is the patent system in Australia based on Australian law?

10. Используя ключевые фразы, расскажите об истории закона о патенте.

Encouragement was held out; new refinement; the profits were secured; received a three-year patent; the first patent with a license of 20 years; patents in the modern sense; a decree to obtain the right; granted for "projects of new invention"; a written description must be submitted; the patent system can be traced back.

LESSON 10. INVENTION IN PATENT LAW

Упражнения

1. Назовите русские слова, имеющие те же корни, что и английские:

patent, test, convention, technical, character, tradition, interpretation, limit, precedent, abstract, idea, natural, phenomena, nature, machine, transformation.

2. а) Переведите следующие словосочетания, представляющие цепочку определений:

patent law, the first test patent application, the invention concept.

б) Найдите в тексте и переведите предложения с приведенными выше словосочетаниями.

3. Найдите английские эквиваленты из приведенных ниже слов следующим русским словам:

приложение	application, apply, applicable;
открытие	discover, discovery, discovering;
соответствовать	corresponding, correspond,
успешный	correspondence;
решающий	successful, success, unsuccessful;
	decisive, decision, decide.

4. Запомните неизвестные вам слова:

to exclude – исключать	to bind – связывать
to grasp – схватывать, зд. <i>поместить в рамки</i>	attempt – попытка
statute – законодательный акт	to substantiate - обосновывать
explicitly – точно, определено	to suffer - страдать
to pose – ставить, создавать	

5. Прочитайте текст, переведите его.

TEXT: INVENTION IN PATENT LAW

In Europe, the first test patent application submitted to is: "is this an invention"? If it is, subsequent questions to be answered are whether it is new, and sufficiently inventive. Whether a patent application relates to an invention is governed by Article 52 of the European Patent Convention, that excludes e.g. discoveries *as such* and software *as such*. The EPO Boards of Appeal have decided that the technical character of an application is decisive for it to be an invention, following an age-old German tradition. British courts don't agree with this interpretation. Following a 1959 Australian decision ("NRDC"), they believe that it is not possible to grasp the invention concept in a single rule.

In the United States, all patent applications are considered inventions. The statute explicitly says that the American invention concept includes discoveries, contrary to the European invention concept. The European invention concept corresponds to the American "patentable subject matter" concept: the first test a patent application is submitted to. While the statute virtually poses no limits to patenting, courts have decided in binding precedents that abstract ideas, natural phenomena and laws of nature are not patentable. Various attempts were made to substantiate the "abstract idea" test, which suffers from abstractness itself, but eventually none of them was successful. The last attempt so far was the "machine or transformation" test, but the U.S. Supreme Court decided in 2010 that it is merely an indication at best.

6. Подтвердите или опровергните следующие высказывания, начав свое высказывание соответствующей фразой: Yes, you are right. I think, you are right. Certainly. Sure. I (quite) agree with you.

Или: I don't think so. I think you're mistaken. I disagree. You're wrong.

1. In Europe some requirements were posed to patent. 2. The European Patent Convention stated what patent application related to an invention. 3. All European countries agreed with this interpretation. 4. In Australia all patent applications are considered inventions. 5. The European Patent Convention considered discoveries and software as inventions. 6. It was decided that abstract ideas, natural phenomena and laws of nature are patentable.

7. Соедините разрозненные части предложений.

1. Invention should be ...
2. The technical character of an application is ...
3. British courts believe it is not possible ...
4. In the United States, all patent applications are ...
5. Abstract ideas, natural phenomena and laws of nature ...

- a) ... to grasp the invention concept in a single rule.
- b) ... considered inventions.
- c) ... new and sufficiently inventive.
- d) ... decisive for it to be an invention.
- e) ... are not patentable.

8. Замените выделенные слова (а) их контекстуальными синонимами (б):

- a) 1. British courts don't agree with this statement. 2. It is not possible to catch the invention concept in a single rule. 3. All patent applications are believed inventions. 4. The law definitely says that the American invention concept includes discoveries. 5. Different attempts were made to substantiate the "abstract idea" test.
- b) interpretation, considered, various, grasp, statute explicitly.

9. Найдите в тексте ответы на следующие вопросы:

1. Какой вопрос представлялся на рассмотрение при утверждении патента? 2. Какие требования предъявлялись к патенту? 3. Что исключали правила Европейской Конвенции по патентам? 4. В какой стране все патенты считались изобретениями? 5. Что не относилось к патентам? 6. Что решил Верховный Суд США в 2010 году?

10. Расскажите о законе о патентах, используя следующие выражения:

The text is about ...

I'm going to speak about ...

The main idea of this text is ...

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Методические указания
по английскому языку для студентов,
обучающихся по специальности 222000
«Инноватика в строительстве»
(часть 2)

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