

**Областное государственное автономное профессиональное
образовательное учреждение
«Белгородский строительный колледж»**

**Учебное пособие по английскому языку для студентов
специальности
«Строительство и эксплуатация зданий и сооружений»
1 часть**

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Введение.

Учебное пособие по английскому языку для студентов специальности «Строительство и эксплуатация зданий и сооружений» 1 часть предназначено для студентов средних профессиональных учебных заведений, в программу которых входит изучение современных отраслей строительного дела. Пособие составлено в соответствии с рабочей программой учебной дисциплины ОГСЭ.03 «Иностранный язык» (английский) по специальности СПО 08.02.01 «Строительство и эксплуатация зданий и сооружений» и рассчитано на обучающихся, имеющих начальную языковую подготовку.

Цель пособия – развитие навыков чтения и перевода специальной научно-технической литературы для извлечения информации, ознакомление с узкоспециальной строительной терминологией на английском языке, а также развитие навыков устной речи по специальности.

Учебное пособие состоит из уроков тем (units): «Архитектура: наука или искусство», «Древняя архитектура», «Современная архитектура», «Архитектура будущего», «Знаменитые архитекторы и инженеры», каждый из которых содержит три-четыре текста, объединенных одной тематикой, предназначенные для обучения различным видам чтения (просмотровое, поисковое, ознакомительное, понимание главной мысли текста). Подобные тексты будут способствовать формированию у студентов технических специальностей в учебных заведениях СПО умений и навыков «гибкого» чтения, при котором стратегия чтения изменяется в соответствии с изменениями задач чтения. В словаре поурочно представлена активная лексика на английском языке. После текстов предложены разнообразные упражнения для проверки понимания текстов, а также закрепления пройденной лексики:

- сопоставить английские эквиваленты с русскими;
- ответить на вопросы к тексту;
- сопоставить части предложения из текста;
- закончить предложения из прочитанного текста;
- выявить истинность предложенных автором предложений;
- составить словосочетания;
- подобрать синонимы или антонимы к словам из текста;

и ряд других.

Для повторения грамматического материала представлены такие грамматические темы как: «Совершенные времена», «Страдательный залог», «Причастие I, Причастие II», «Герундий», «Согласование времен, Прямая и косвенная речь» с подробными правилами и разнообразными упражнениями.

Данное учебное пособие позволит студентам изучить и обобщить специальную лексику, необходимую для профессионального общения на английском языке. Тематика и сложность текстов определяется объемом общетехнических знаний, которыми владеют студенты после 2 лет обучения в ССУЗе. Тексты пособия отобраны с учетом их информативности, аутентичности и соответствия научно-техническим достижениям.

Предлагаемое пособие, через формирование языковой компетенции, включающей в себя не только владение знаниями по иностранному языку:

грамматическим строем, фонетическими особенностями и лексическим минимумом, но и умение своевременно использовать приобретенные навыки в сфере строительства, направлено на формирование профессиональных компетенций специалиста, то есть нацеливает будущего специалиста строительной сферы на овладение профессиональными знаниями в процессе изучения иностранного языка.

Unit 1 Архитектура : наука или искусство.

Text A.From the history of building.

1.Read and translate the text

Many thousands of years ago there were no houses such as people live in today. In hot countries people sometimes made their homes in the trees and used leaves to protect themselves from rain or sun. In colder countries they dwelt in caves. Later people left their caves and trees and began to build houses out of different materials such as mud, wood or stones.

Later people found out that bricks made of mud and dried in the hot sunshine became almost as hard as stones. In ancient Egypt especially, people learned to use these sun-dried mud bricks. Some of their buildings are still standing after several thousands of years.

The ancient Egyptians discovered how to cut stone for building purposes. They erected temples, palaces and huge tombs. The greatest tomb is the stone *pyramid of Khufu¹, king of Egypt. The ancient Egyptians often erected their huge constructions to commemorate their kings or pharaohs.

The ancient Greeks also understood the art of building with cut stone, and their buildings were beautiful as well as useful. They often used pillars, partly for supporting the roofs and partly for decoration. Parts of these ancient buildings can still be seen today in Greece.

Whereas the ancient Greeks tried to embody the idea of harmony and pure beauty in their buildings, the Roman architecture produces the impression of greatness, might, and practicalness.

The Romans were great bridge, harbor and road builders. In road works the Romans widely used timber piles. They also erected aqueducts, reservoirs, water tanks, etc. Some of their constructions are used till now. It is known that the manufacture of lime is one of the oldest industries used by man. Lime is a basic building material used all over the world as today so in the ancient world. One of the Romans, Marcus Porcius Cato, gave an idea of a kiln for lime production: it's shape and dimensions. They are rough cylindrical or rectangular structures, built of stone in a hillside with an arched opening at the front to enable the fire to be made and the lime to be withdrawn. Such kilns were fired with wood or coal and were extremely inefficient. There are still many remains of kilns in some places of Great Britain as well as roads and the famous Hadrian Wall, which was erected to protect the Romans from the Celtic tribes in the first century A. D. Britain was a province of the Roman Empire for about four centuries. There are many things today in Britain to remind the people of the Romans: towns, roads, wells and the words. By the way, Hadrian, the Roman emperor, was also the one who suggested the absolutely new for that time idea of building the Pantheon with a dome. He constructed it, and alongside with a number of other outstanding buildings such as the Coliseum and the Baths of Caracalla, it is still there in Rome. Many ancient buildings in Rome were designed by Hadrian as well as by other Roman emperors. In a period of 800 to 900 years the Romans developed concrete to the position of the main structural material in the

empire.

It is surprising, therefore, that after the fall of the Empire, much of the great knowledge should have disappeared so completely. The knowledge of how to make durable concrete has been lost for centuries, *but mention was made of it in the writings of architects from time to time². Fusion of Roman and North European traditions in construction was reflected in many ways. Buildings combined the Roman arch and the steep peaked roof of Northern Europe. Roman traditions were continued in the architectural form known as Romanesque. London Bridge, finished in 1209, took thirty-three years to build. It consisted of nineteen irregular pointed arches with its piers resting on broad foundation, which was designed *to withstand the Thames current³. The Roman period was followed by other periods each of which produced its own type of architecture and building materials. During the last hundred years many new methods of building have been discovered. One of the most recent discoveries is the usefulness of steel as a building material.

Nowadays when it is necessary to have a very tall building, the frame of it is first built in steel and then the building is completed in concrete. Concrete is an artificial kind of stone, much cheaper than brick or natural stone and much stronger than they are. The earliest findings of concrete building fragments belonging to prehistoric times were discovered in Mexico and Peru. The Egyptians in the construction of bridges, roads and town walls employed it. There are evidences that the ancient Greeks also used concrete in the building purposes. The use of concrete by the ancient Romans can be traced back as far as 500 B.C. *They were the first to use⁴ it throughout the ancient Roman Empire *on a pretty large scale⁵ and many constructions made of concrete remain till nowadays thus proving the long life of buildings made of concrete. Of course, it was not the concrete people use today. It consisted of mud, clay and pure lime, which were used to hold together the roughly broken stone in foundations and walls. It was the so-called "pseudo concrete". The idea of such building material might have been borrowed from the ancient Greeks as some samples of it were found in the ruins of Pompeii.

2. A few explanations to the text

1. ...pyramid of Khufu — пирамида Куфу
2. ...but mention was made of it in the writings of architects from time to time —
но время от времени можно встретить упоминание об этом в работах архитекторов.
- 3....to withstand the Thames current.— ...чтобы противостоять течению Темзы.
- 4.They were the first to use... — они первыми использовали.
- 5on a pretty large scale— в довольно широких масштабах.

3. Key vocabulary /expressions. Find the words belonging to the prehistory time of construction and compose sentences with them

borrow — (from) занимать, заимствовать;
dome — купол;
fusion — слияние;
dwell — жить, проживать;
embody — олицетворять;
kiln — обжиговая печь;
pile — свая, столб;
pillar — столб, колонна;
remains — остатки, руины;
tribe — племя;
a cave — пещера;
a mud — глина, грязь;
sun — dried - высушенный на солнце;
might — мощь;
a harbor — гавань;
a dimension — размер, объем;
rough — грубый, неправильный;
ahillside — сторона холма;
arched — в виде арки;
to withdraw — удалять, извлекать;
a well — колодец;
alongside — в стороне, поблизости;
to reflect — отражать;
pointed — стрельчатый;
pier — стойка, опора, столб;
to be completed — завершаться;
to employ — применять, использовать;
evidence — очевидность, факт;
to trace back — относиться;
throughout — на протяжении;
a sample — образец.

4. Translate the extract into Russian

The term "*civil engineering*" is usually applied to such activities as the excavation and then the construction of different buildings, bridges, roads, docks, harbors and embankments as well as to the water control by dams and reservoirs, canals and aqueducts, pipelines and the reclamation of land.

By the way: What does the international word "reclamation" mean here? Explain it in the most detailed way in Russian.

5. Explain in English the meaning of the following words

sun-dried mud bricks _____

timber piles _____
pseudo concrete _____
the ruins of Pompeii _____
harmony and pure beauty _____

6. Find in the text equivalent English phrases to the following Russian

доисторические времена _____
римский период _____
бесполезность использования стали _____
в качестве строительного материала _____
грубо обтесанный камень _____
они первыми использовали _____
недавние открытия _____
в довольно широких масштабах _____

7. General understanding. Answer the questions

1. Call main building materials used by men in ancient times. What are differences between them due to climatic zones?
2. What did hardness of mudbrick depend upon?
3. Do you know how the ancient Egyptians discovered the secret of cutting stone for building purpose? Say in details.
4. What for did they erect huge construction?
5. How do you understand this expression “buildings in ancient Greece were beautiful as well as useful”? How could they do it?
6. What were differences between attitude to building of the Greeks and the Romans?
7. What kind of building materials did the Romans use and what did they build?
8. Can you explain work of a kiln? What is the purpose of its production?
9. How did a dome influence to building in ancient Rome?
10. What were differences of using building materials between the Greeks and the Romans?
11. Why did much of knowledge disappear almost completely after the fall of the Empire?
12. Can you call examples of Romanesque? What were differences between building in Roman style and this one?
13. Can you explain why steel is the useful building material?
14. What are differences between “pseudo concrete” and modern concrete? Which of them is much stronger and why?

8. Divide the text into logical parts and make the plan.

Text B. Architecture

1. Read and translate the text

The science of the building is Architecture. Any engineer cannot take a

form of the building without consideration of structural principles, materials, social and economic requirements. So a building cannot be considered as a work of architecture. From the very beginning architecture of many skills, systems and theories have been used for the construction of the buildings that men have housed in all their essential activities. The coexistence of change and survival is evident in all phases of the human history. This change and repetition is clearly illustrated in any architectural style. The historical background of architecture is the value of our cultural heritage. The heritage of the past cannot be ignored. Such recognition of continuity does not imply repetition or imitation. It must be expressed in contemporary terminology.

Writing on architecture is almost as old as writing itself. There are a lot of books on the theory of architecture, on the art of the building and on the aesthetic appearance of buildings. The oldest book is a work of Marcus Vitruvius Pollio, written in the first century B.C. Nearly 2000 years ago the Roman architect Vitruvius set the principles upon which buildings should be designed and aims to guide the architect. He was the first who listed three basic factors in architecture – “convenience, strength and beauty”. The sequence of these three basic aims- “convenience, strength and beauty”- has its own significance. These three factors are always present and are always interrelated in the best structures. It is impossible for a true architect to think of one of them without considering the other two as well. Thus architectural design entails a consideration of the constant interaction of these factors. At last we can say that every element in a building has a triple implication. At the same time its contemporary expression must be creative and consequently new.

Architecture is an art. The triple nature of architectural design is one of the reasons why architecture is a difficult art. The architect does not first plan a building from the point of view of convenience, then designs around his plan a strong construction to shelter it, and finally adjusts and decorates the whole to make it pretty. It takes him a special type of imagination as well as - long years of training and experience to produce a designer capable of making the requisite in the light of these three factors — "use, construction, aesthetic effect— simultaneously. First of all, the designer must have sufficient knowledge of engineering, building materials to enable him to create economically. We see, any building is built because of some definite human need. The use problem — "convenience" — is therefore primary. In addition, the designer must possess the plan and the creative imagination which will enable him to integrate the plan and the construction into one harmonious whole. The architect's feeling of satisfaction in achieving such as integration is one of his greatest reward.

2 Key words and expressions

science – наука ;

without consideration – без рассмотрения;

requirements. – требования;

coexistence – сосуществование;

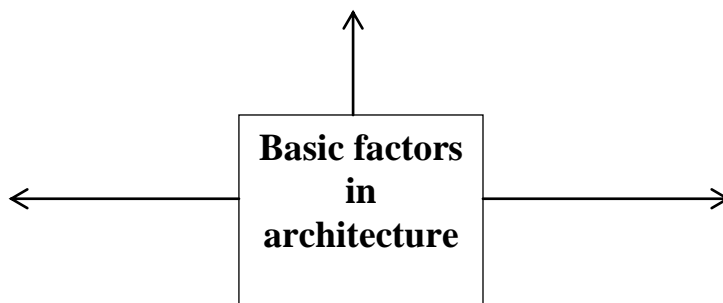
to be evident – быть очевидным;

to be illustrated – чтобы проиллюстрировать;

historical background – исторический фон;
cultural heritage – культурное наследие;
recognition – признание;
aesthetic appearance – эстетический вид;
set the principles – устанавливать принципы;
to guide – руководить, управлять;
convenience – удобство;
strength – сила;
significance – важность;
to be interrelated- быть взаимосвязанным;
to entail – влечь за собой;
to adjust – регулировать;
simultaneously – одновременно;
sufficient knowledge – достаточные знания;
creative imagination – творческое воображение;
a reward – награда.

2 Read the text again and find the main idea of each paragraph.

3 Read the text once more and complete the spidergram:



4. Complete the following sentences:

- Architecture is art...
- ... finds little place ...
- ... in any architectural style.
- ... change and repetition is clearly illustrated ...
- Nearly two thousand years ago
- The designer must have a ...
- ... have taken great pains ...
- ... is one of his greatest rewards.
- The heritage of the past...

***5. Read the following statements and say whether they are true or false.
Correct the false statements:***

- The historical background of nineteenth-century architecture finds little place

in this article.

- The heritage of the past cannot be ignored.
- Nearly five thousand years ago the Roman architect Vitruvius listed three basic factors in architecture.
- The designer must have a sufficient knowledge. Architecture is the sport.
- Paradox of change and repetition is clearly illustrated in any architectural style.
- The architect's feeling of love is one of his greatest rewards. Of any truly great building we can say that every element in it has a triple implication.

Text C. People in architecture

1. Read and translate the text

Are you planning on a career in architecture? If so, you probably want to be an architect, but some students don't understand the diversity of this field. Whether self-employed or with a firm, architects depend on relationships with other professionals. They interact daily with clients, surveyors, contractors, and consultants.

Before any construction can begin, architects work with surveyors. For new construction, land surveyors and geotechnical surveyors usually assess the site first. Building surveyors are often called in to assess existing structures. Many engineers contribute to the project before and during construction. Structural engineers work with the architect to ensure the building's structural integrity. Electrical engineers and mechanical engineers design the building's utilities. Acoustic engineers handle noise reduction. This is especially important in apartment buildings.

Specialists allow architects to focus on what they do best. Some architects have specialties of their own, like landscape architects. No single person can become an expert in every field. Architectural teams work together to make building designs a reality.

2. Key vocabulary /expressions.

the diversity – разнообразие;

an architect – архитектор;

self-employed – индивидуальный предприниматель, самозанятый;

relationship - отношения;

to interact – взаимодействовать;

client – клиент;

contractor – подрядчик;

surveyor (land ..., geotechnical ..., building...) – геодезист(землемер), геотехнический геодезист, строительный геодезист;

to contribute – внести свой вклад;

structural engineer – инженер-строитель;

electrical engineer – инженер-электрик;

mechanical engineer – инженер-механик;

acoustic engineer – акустический инженер;

structural integrity – структурная целостность;
building's utilities – инженерные коммуникации здания;
noise reduction – уменьшение шума.

3. Put different kinds of questions to the text.

4. Choose the correct answers, according to the text.

- 1 What is the purpose of the article?
A to review the benefits of internship at architectural firms
B to explain how technology has changed architectural careers
C to describe different kinds of people that architects work with
D to compare modern architectural careers with those of the past
- 2 Which job is not completed by an engineer?
A assessing the construction site
B designing the building's utilities
C ensuring the building's structural integrity
D handling noise reduction
- 3 Which professional's work is especially important when building apartments?
A building surveyor
C acoustic engineer
B structural
D landscape architect

5 Match the words and phrases (1-8) with the definitions (A-H).

- | | | | |
|---|------------|---|---------------------|
| 1 | firm | 5 | self-employed |
| 2 | client | 6 | building surveyor |
| 3 | contractor | 7 | structural engineer |
| 4 | consultant | 8 | mechanical engineer |

- A working for oneself rather than an employer
B a business involving the partnership of two or more people
C a person who designs a building's heating and ventilation systems
D a person or company responsible for the physical construction of a building
E a person who measures and draws the existing landscape and buildings
F a person responsible for making sure the building is safe
G a person or entity for whom a job is performed
H an expert who provides professional advice

6 Write a word or phrase that is similar in meaning to the underlined part.

- 1 Lauren is studying to be a person who plans and designs buildings.

- 2 After primary construction was finished, the company hired a person who specializes in outdoor designs.
- 3 In apartment buildings, it's especially important to have a person who specializes in noise reduction. _ _
- 4 The company hired a new person who determines the boundaries of a property. _ _ _ _ _ .
- 5 James used to be a person who designs a building's electrical systems. _
- 6 If the ground is unstable, the person who assesses the earth at a site will discover it.

Text D. Qualities of an Architect

Rhodes Job Listing

Architect wanted

Date: January 14

Reply to : jobs@curtis-burke.com

1 Before you read the passage, talk about these questions.

- 1 What are some of the qualities of a good architect?
- 2 Why must an architect be both artistic and logical?

2. Read and translate the job listing.

A local architecture partnership is looking for a creative, dedicated architect. We are seeking a candidate with experience designing residences. We want to work with someone who is enthusiastic about home design! Experience with custom home building is a plus, but not necessary. The ideal candidate will be hardworking and computer savvy. Up-to-date knowledge of drafting software is essential. A qualified candidate will have a working knowledge of design trends.

Our partnership creates custom homes for clients in the southwest area. Candidates should be persistent, organized, and patient with our clients. Attention to detail is a must. Many of our clients have unconventional visions for their homes. Architects must be artistic and able to think outside the box. They must also think of logical solutions to design problems.

Please send resumes and cover letters to the above email address. You can also send a hard copy by mail. Please visit our website for further contact information.

3 Key vocabulary / expressions

partnership – партнёрство;

creative – творческий;

dedicated - посвященный;

to seek – искать;

with experience – с опытом;

enthusiastic – восторженный, полный энтузиазма;

hardworking – трудолюбивый;

computer savvy – опытный (подкованный) в области компьютеров;
 up-to-date knowledge – современные знания;
 drafting software – разработка программного обеспечения;
 persistent – настойчивый;
 organized – организованный;
 patient – терпеливый;
 attention to details – внимание к деталям;
 artistic – художественный;
 outside the box – нестандартно(идиома);
 logical solution – логичное решение.

4 Choose the correct answers.

- 1 What does the architecture partnership do?
 - A educate architects about new drafting software
 - B build custom homes with unconventional designs
 - C cultivate enthusiasm for home design
 - D hold training on current trends in architecture
- 2 Which is NOT required of applicants?
 - A experience building custom homes
 - B knowledge of current drafting software
 - C ability to implement both artistic and logical solutions
 - D functional understanding of design trends
- 3 According to the listing, why should architects be able to think outside the box?
 - A because of the particular region that the company works in
 - B because they need patience to handle clients
 - C because the company places emphasis on dedication
 - D because clients have unconventional design ideas

5 Match the words and phrases (1-8) with the definitions (A-H).

- | | | | |
|---|-----------|---|---------------------|
| 1 | logical | 5 | patient |
| 2 | artistic | 6 | computer savvy |
| 3 | organized | 7 | outside the box |
| 4 | dedicated | 8 | attention to detail |

- A skilled with planning and arranging in an orderly manner
- B having a strong aesthetic sense
- C committed to an idea or purpose
- D able to solve problems rationally
- E educated and skilled in the use of current technology
- F able to handle situations calmly and without rushing
- G ability to identify and appreciate small aspects of the overall whole

It done in an atypical or unconventional way

6Read the sentence pairs. Choose which word best fits each blank.

1 creative / persistent

A A _____ person will not give up easily.

B _____ people come up with unique ideas.

2 hardworking / enthusiastic

A _____ people put a lot of effort into their work.

B _____ people are very passionate about what they do.

GRAMMAR

Perfects

1. The Present Perfect употребляется для выражения действия, совершившегося к настоящему моменту, результат которого имеется налицо в настоящем времени. Действие могло совершиться как непосредственно перед моментом речи, так и в более отдаленное время в прошлом. При употреблении Present Perfect, говорящий обращает внимание собеседника на результат, вытекающий из совершенного действия, а не на время его совершения. Наличие результата связывает совершившееся действие, выраженное Present Perfect, с настоящим.

I have broken my pencil.

Я сломал свой карандаш.

(Говорящий имеет в виду конкретный результат действия have broken, а именно, что карандаш сломан. Он мог бы это также выразить предложением: My pencil is broken. Мой карандаш сломан.)

2. В зависимости от значения глагола результат действия, выраженного в Present Perfect, может и не быть конкретным, как в приведенных примерах, а выражаться иным образом:

I have not read that book.

Я не читала этой книги.

(Говорящий хочет сообщить, что книга им не прочитана, т.е. что он не знает ее содержания. Он мог бы это выразить также предложением: I don't know the contents of that book. Я не знаю содержания этой книги.)

3. Present Perfect употребляется для выражения как однократного действия, так и действия, повторявшегося несколько раз:

I have read that book twice.

дважды.

Я прочитал эту книгу

I have seen this film three times.

раза.

Я видел этот фильм три

Примечание. И Present Perfect и Past Simple соответствуют в русском языке прошедшему времени. Однако Past Simple и Present Perfect

коренным образом отличаются друг от друга. Past Simple выражает действие, совершившееся в истекшем отрезке времени, констатирует факт совершения действия в прошлом. Поэтому Past Simple употребляется в повествовании. Present Perfect выражает действие, хотя и совершившееся в прошлом, но связанное с настоящим благодаря наличию его результата в настоящем времени. Поэтому Present Perfect употребляется не в повествовании, а в разговоре или сообщении, касающемся положения вещей в настоящее время.

Present Perfect	Past Simple
<p>I have finished my work and am going home now.</p> <p>Я окончил свою работу и иду теперь домой.</p> <p>The manager has signed the letter. Can you post it at once?</p> <p>Заведующий подписал мое письмо. Не можете ли вы отправить его немедленно?</p> <ul style="list-style-type: none"> - Has the steamer arrived? - No, it hasn't . - Пароход прибыл? - Нет. 	<p>I finished my work and went home.</p> <p>Я окончил свою работу и ушел домой.</p> <p>The manager signed letter, and I posted it at once.</p> <p>Заведующий подписал письмо, и я отправил его немедленно.</p> <ul style="list-style-type: none"> - Did the steamer arrive yesterday? - No, it didn't. - Пароход прибыл вчера? - Нет.

Сводка случаев употребления Present Perfect

1. Действие, результат которого имеется в настоящем (в русском языке соответствует прошедшему времени)	I have written the letter; here it is.	Я написал письмо; вот оно.
2. Вместо Present Perfect Continuous (в русском языке соответствует настоящему времени)	I have known him for three years.	Я знаю его три года.
3. Будущее совершенное действие в придаточных предложениях времени и условия (в русском языке соответствует будущему времени)	After I have read the book, I'll give it to you.	После того, как я прочту эту книгу, я дам ее вам.

Exercise 1. Put in the correct verb for:

I've done (I/do) all the housework. The flat is really clean now.

A young couple bought (buy) the house next door. But they didn't live there long.

1. Our visitors (arrive). They're sitting in the garden.

2. There's still a problem with the television. Someone (repair) it, but then it broke down again.

3. (I/lose) my bank card. I can't find it anywhere.

4. The match (start). United are playing well.

5. My sister (run) away from home. But she came back two days later.

6. Daniel (earn) some money last week. But I'm afraid he's already spent it all.

7. (we/plant) an apple tree in the garden. Unfortunately it died.

8. Prices (go) up. Everything is more expensive this year.

9. Someone (run) on the hi-fi. What's that song called?

10. (I/phone) the office at eleven to speak to the manager, but he isn't there today.

11. (I/make) a cake. Would you like a piece?

12. The runner Amos Temila(break) the world record for the 1500 metres in Frankfurt. Then two days later in Helsinki, Lee Williams ran it in an even faster time.

Exercise 2. Things that have happened today are on the radio and TV news. Give the news using the Present Perfect and Past Simple:

the Prime Minister/visit Luton University/speak to students there/earlier today

The Prime Minister has visited Luton University. He spoke to students there earlier today.

1. the train drivers / go on strike / stop work / at twelve o'clock

2. the Queen / arrive in Toronto / fly there / in an RAF aircraft

3. two men / escape from Parkhurst Prison / get away / during the night

4. the actor Howard Bates / die in a car accident / his car / crash into a wall

5. Linda Jones / win the women's marathon / run it / in 2 hours 27 minutes.

Exercise 3. Complete this letter to a newspaper. Put in the Present Perfect or Past Simple:

A few days ago we learned (learn) that someone plans to knock down the

White Horse Inn. This pub has been (be) the centre of village life for centuries. It (stand) at our crossroads for 500 years. It (be) famous in the old days, and Shakespeare once (stay) there, they say. I (live) in Brickfield all my life. The villagers (know) about the plans for less than a week and already there's a 'Save our Pub' campaign. Last week we (be) happy, but this week we're angry. We will stop them, you'll see.

Exercise 4. Put in this, last, today or yesterday:

Last month prices went up, but this month they have fallen a little.

1. It's been dry so far week, but week was very wet.
2. I went shopping earlier and spent all the money I earned
3. We didn't have many visitors year. We've had a lot more year.
4. I don't feel so tired now. We got up quite late morning. I left really tired when we got up so early.

Exercise 5. Decide which word is correct:

I'd like to borrow this book. Has Anna read it yet?

a) done b) for c) just d) yet

1. Ben writes very quickly. He's finished his essay.

a) already b) been c) for d) yet

2. What are you going to do? ~ I don't know. I haven't decided.....

a) just b) long c) since d) yet

3. I've to London. I went there in June.

a) been b) gone c) just d) yet

4. Have you done any skiing?

a) ever b) for c) just d) long

5. My boyfriend hasn't rung week.

a) for b) last c) since d) this

6. I haven't seen that coat before. How have you had it?

a) already b) for c) long d) since

7. The girls have to the cinema. They won't be back until ten o'clock.

a) already b) been c) gone d) just

8. I haven't seen my parents last Christmas.

a) already b) before c) for d) since

9. This is the first I've ever lived away from home.

a) already b) since c) that d) time

10. This programme must be new. I've seen it before.

a) ever b) never c) since d) yet

Past Perfect

The Past Perfect Tense образуется с помощью вспомогательного глагола to have в форме прошедшего времени (had) и формы причастия прошедшего времени (Past Participle) смыслового глагола: I had worked, he had done.

В вопросительной форме вспомогательный глагол ставится перед подлежащим: Had you worked? Had he done?

Отрицательная форма образуется при помощи частицы not, которая ставится после вспомогательного глагола: I had not worked.

Past Perfect употребляется только в повествовании, в рассказах, повестях и т.д. (only in the narrative).

Форма PastPerfect употребляется:

1. когда нужно показать, что данное действие или событие кончилось к какому-то моменту в прошлом.

Определенный момент в прошлом может быть выражен обстоятельством времени с предлогом by (к):

by that time	к тому времени
by 10 o'clock	к десяти часам
by the end of the week	к концу недели
by the beginning of last year	к началу прошлого года
by 1998	к 1998 году

They had completed their work by 12 o'clock.	Они закончили свою работу к 12 часам.
--	---------------------------------------

By the end of the year I had learned many English words and expressions.	К концу года я выучила много английских слов и выражений.
--	---

This article had been translated into English by 2 o'clock.	Эта статья была переведена на английский язык к 2 часам.
---	--

2. Когда нужно показать, что данное действие или событие предшествовало какому-то другому действию или событию в прошлом. Более позднее действие выражено глаголом в Past Simple:

When we came to the theatre, all the tickets had been sold out.	Когда мы пришли в театр, все билеты были уже проданы.
When I looked out of the window, I saw that the rain had not stopped.	Когда я выглянул в окно, я увидел, что дождь еще не прекратился.

Exercise 1. Read about each situation and then tick the right answer:

Two men delivered the sofa. I had already paid for it.

Which came first, a) the delivery, or b) the payment?

1. The waiter brought our drinks. We'd already had our soup.

Which came first, a) the drinks, or b) the soup?

2. I'd seen the film, so I read the book.

Did I first a) see the film, or b) read the book?

3. The programme had ended, so I rewound the cassette.

Did I rewind the cassette a) after, or b) before the programme ended?

4. I had an invitation to the party, but I'd arranged a trip to London.

Which came first, a) the invitation, or b) the arrangements for the trip?

Exercise 2. Add a sentence with the past perfect using the notes:

Claire looked very suntanned when I saw her last week.

She'd just been on holiday. (just/be on holiday)

1. We rushed to the station, but we were too late.

..... (the train / just / go)

2. I didn't have an umbrella, but that didn't matter.

..... (the rain / stop)

3. When I got to the concert hall, they wouldn't let me in.

..... (forget / my ticket)

4. Someone got the number of the car the raiders used.

..... (steal / it / a week before)

5. I was really pleased to see Rachel again yesterday.

..... (not see / her/ for ages)

6. Luckily the flat didn't look too bad when my parents called in.

..... (just / clean / it)

7. The boss invited me to lunch yesterday, but I had to refuse the invitation.

..... (already / eat / my sandwiches)

Exercise 3. Put the verbs in the present perfect (have done) or past perfect (had done):

It isn't raining now. It's stopped (stop) at last.

We had no car at that time. We'd sold (sell) our old one.

1. The park looked awful. People (leave) litter everywhere.

2. You can have that newspaper. I (finish) with it.

3. There's no more cheese. We (eat) it all, I'm afraid.

4. There was no sign of a taxi, although I..... (order) one half an hour

before.

5. This bill isn't right. They (make) a mistake.

6. I spoke to Melanie at lunch-time. Someone (tell) her the news earlier.

7. I was really tired last night. I (have) a hard day.

8. Don't you want to see this programme? It (start).

9. It'll soon get warm in here. I (turn) the heating on.

10. At last the committee were ready to announce their decision. They (make) up their minds.

Exercise 4. Read the situations and write sentences from the words in brackets:

1. You went to Jill's house but she wasn't there. (she / go / out) ... She had gone out...

2. You went back to your home town after many years. It wasn't the same as before.

(it / change / a lot)

3. I invited Rachel to the party but she couldn't come.

(she / arrange / to do something else)

4. You went to the cinema last night. You arrived at the cinema late.

(the film / already / begin)

5. I was very pleased to see Tim again after such a long time.

(I / not / see / him for five years)

6. I offered Sue something to eat but she wasn't hungry.

(she / just / have / breakfast)

Exercise 5. Read the situation and write sentences ending with before. Use the verb given in brackets:

1. The man sitting next to me on the plane was very nervous. It was his first flight.

(fly) ... He had never flown before, OR He hadn't flown before. ...

2. A woman walked into the room. She was a complete stranger to me.

(see) I before.

3. Simon played tennis yesterday. He wasn't very good at it because it was his first game.

(play) He

4. Last year we went to Denmark. It was our first time there

(be) We

Future Perfect

The Future Perfect образуется при помощи вспомогательного глагола to have в будущем времени (shall have, will have) и формы причастия прошедшего времени (Past Participle) смыслового глагола: I shall have worked, he will have done.

В вопросительной форме первый вспомогательный глагол ставится перед подлежащим: Shall I have worked? Will he have worked?

В отрицательной форме частица not ставится после первого вспомогательного глагола: I'll not have worked.

The Future Perfect употребляется сравнительно редко, эта форма употребляется в тех случаях, когда нужно показать, что речь идет о будущем действии, которое должно заканчиваться до наступления другого будущего действия или до определенного момента в будущем. Момент, до которого совершается действие, может быть указан:

1. Обозначением времени, таким как by 5 o'clock - к пяти часам, by Saturday - к субботе, by the end of the year - к концу года, by that time - к тому времени и т.п.

We'll have translated the article by Saturday.	Мы (уже) переведем статью к субботе.
Students will have finished their Study by 20 December.	Студенты закончат учебу к 20 декабря.

2. Другим будущим действием, выраженным глаголом в Present Simple, в придаточных предложениях времени и условия:

The train will have left by the time we get to the station.	Поезд уже уйдет к тому времени, как мы приедем на вокзал.
I'll have finished this work if you come at 7 o'clock.	Я уже закончу эту работу, если ты придешь в 7 часов.

The Future Perfect не употребляется в придаточных предложениях времени и условия. В этих случаях вместо Future Perfect употребляется Present Simple или Present Perfect:

We'll send them the documents after we have received the goods.	Мы pošлем им документы, после того как получим товары.
---	--

Exercise 1. Paul wants to be an artist. He's reading about a famous artist called Winston Plummer:

Winston Plummer was a great artist, who had a wonderful career. He won lots of prizes before he was twenty. By the age of twenty-five he had had his own exhibition. He was the subject of a TV documentary by the time he was thirty. By the age of thirty-five he had become world-famous. He made millions of pounds from his pictures before he was forty.

Paul is daydreaming about his own future career. What does he think?

I hope I'll have won lots of prizes before I'm twenty.

1. Perhaps my own exhibition by the age of twenty-five.
2. I wonder if by the time I'm thirty.
3. Maybe by the age of thirty-five.
4. I hope by the age of forty.

Exercise 2. How good is your maths? Can you work out the answers?

It's quarter to six. Melanie is putting something in the oven.

It needs to be in the oven for an hour and half. When will it have cooked?

It will have cooked at quarter past seven.

1. It's seven o'clock in the evening, and Andrew is starting to write an essay. He writes one page every fifteen minutes. He plans to finish the essay at midnight. How many pages will he have written? He will have written pages.

2. It's Monday morning, and Sarah is travelling to work. It's twenty miles from her home to the office. How far will she have traveled to and from work by the time she gets home on Friday?

3. Matthew is doing press-ups-one every two seconds. How many will he have done after five minutes?

Exercise 3. Put the verb into the correct form, will be (do)ing:

1. Phone me after 8 o'clock. (we/finish) dinner by then.

2. B has to go to a meeting which begins at 10 o'clock. It will last about an hour.

A: Will you be free at 11.30?

B: Yes, (the meeting/finish) by that time.

3. Tom is on holiday and he is spending his money very quickly. If he continues like this, (he/spend) all his money before the end of his holiday.

4. Jane is from New Zealand. She is traveling around Europe at the moment. So far she has traveled about 1,000 miles. By the end of the trip,(she/travel) more than 3,000 miles.

Unit 2 Древняя архитектура(Исторические стили архитектуры)

Text A A Return to the Classics

1 Before you read the passage, talk about these questions.

- 1) What are some features of classical architecture?
- 2) What are some features of Gothic architecture?

2 Read and translate the text

More and more contemporary architects are turning to historical designs for inspiration. Early building styles add both elegance and history to new structures.

Many new designs incorporate elements of Gothic architecture. The ribbed vault on the ceiling of the famous Gracetown Theatre is one of the examples. It was built five years ago, but it feels like a structure from another century. It even has the classic buttresses along its outer walls.

Some architects are also reviving the strong, bold styles of classic architecture. Some features, like the classical dome, have never gone out of fashion. Many Renaissance buildings also have classical elements.

Some modern architects construct classical columns according to the rules of the five orders. Early books on the subject are becoming more and more popular in classrooms and architectural firms. Architects diligently ensure that each column has the diameter and height required by each order. Then they construct the columns with the proper spacing. Broad lintels can be found across wide entryways.

So what will historically-minded architects bring back next? Some ambitious architects are designing buildings to look like Egyptian pyramids. Could that be the next big trend in architecture? We'll see.

3 Key vocabulary /expressions.

inspiration – вдохновение;
to add – добавить;
elegance – элегантность;
to incorporate – включать;
the ribbed vault – ребристый свод;
buttress – контрфорс, подпора;
outer walls – наружные стены;
to revive – возрождать;
classical dome – классический купол;
to go out of fashion – выходить из моды;
Renaissance – Возрождение;
rules of the five orders – правило пяти ордеров (арх.)
on the subject – по теме, по предмету;
diligently – старательно;
to ensure – чтобы обеспечить;
diameter – диаметр;

height –высота;
 required –требуемый;
 the proper spacing – правильный интервал;
 broad lintels – широкие перемычки;
 entryways – вход, передняя.

4 Mark the following statements as true (T) or false (F).

- 1 –The Gracetown Theater was built during the Gothic period.
- 2- Classical column designs each have rules regarding size and spacing.
- 3 – According to the article, some architects are renovating deteriorating Egyptian pyramids.

5 Write a word or phrase that is similar in meaning to the underlined part.

- 1 The architects studied the style of the ancient tombs in Egypt.
- 2 The design of the theater has elements of styles from ancient Greece and Rome.
- 3 Many architects have guides to the different types of classical columns.
- 4 The cathedral ceiling features a Gothic arched design.

6 Put the words from the list under the correct heading.

Renaissance, column, Gothic, classical, spacing, height, buttress, diameter, lintel

Historical periods	Types of structures	Measurements
_____	_____	_____
_____	_____	_____
_____	_____	_____

Text B The Egyptian Pyramids

1 Before you read the passage, talk about these questions.

- 1) What the oldest monuments of architecture do you know?
- 2) What pyramids do you know?

2 Read and translate the text

It was mentioned, that Architecture is the science of building. A man who designs buildings and makes the plans for them is called an architect. First of all, an architect has to think what he wants to build. He must not forget what it is to be used for. He must not forget the sort of material to be used in the building.

It may be stone, a brick, wood or steel and concrete.

We know that Architecture is the art, which makes buildings beautiful to look at. There were many different styles or kinds of architecture in the past. Now they tell us about advanced civilization of ancient countries. One of the oldest monuments, constructed about 6.000 years ago, are the colossal pyramids of Egyptian. The pyramids are large triangular buildings which were placed over the tombs of Egyptian kings. The best known of the pyramids are a group of three built at Giza south of Cairo. The largest of these is 482 feet high. There are many building of different styles today in different pails of the world, which are much spoken about in our days.



3Key vocabulary /expressions.

sort of material – вид материала;
different styles –разные стили;
triangular buildings–треугольные здания;
colossal pyramids – огромные пирамиды;
civilization–цивилизация;
ancient Egypt – Древний Египет.

4 Answer the following questions to the text:

- 1)What problems did the Egyptian architects have?
- 2)What materials were for construction of pyramids used? What is an Egyptian pyramid?
- 3)What interesting facts do you know about the Egyptian pyramids?
- 4)What do they tell us about civilization?

5 Read the text again and complete the sentences:

- 1)... many different styles or kinds ...
- 2)... the sort of material to be used ...
- 3)... are a group of three built at...
- 4)... which are met within architecture ...
- 5)... man who designs ...
- 6) They tell us of the advanced ...
- 7) He must not forget...
- 8) Architecture is the art...
- 9)«... to think not only of what...
- 10) The largest of these is ...
- 11)... the colossal pyramids ...

6Read the statements and say whether they are true or false. Correct the false statements:

- 1)The oldest monuments were constructed about 4,000 years ago.
- 2)A man who designs buildings and makes the plans for them is called the singers.
- 3)The pyramids are large square buildings.
- 4)Architect must not forget the sort of material to be used in the building.
- 5)The largest of pyramids is 582 feet high.
- 6)Architecture is the art which makes buildings beautiful to look at as well as useful.
- 7)The best known of the pyramids are a group of three built at Giza south of Cairo.

Text C Architectural styles: Modernism

1Before you read the passage, talk about these questions.

- 1) What are some design characteristics of modern architecture?
- 2)What are some materials used in modern architecture?

2 Read and translate the text

In the early twentieth century, functionalism swept the architectural world. Architects adopted the phrase "form follows function" as a design principle. They favored stark, efficient designs. These ideas fueled Modernism.

Architects like Frank Lloyd Wright and Le Corbusier embraced simplicity and function in their designs.

Le Corbusier famously said, "A house is a machine for living in." In other words, a building's primary function is to be useful, much like a car or telephone.

Indeed, the new technology of the day inspired modern designs. Materials were very industrial. Architects used iron, steel, concrete, sheet glass, and monolithic stone. They believed in the principle of truth to materials. They didn't try to hide the natural appearance of their materials. As such, many modern structures are beige, gray, white, or black.



Bauhaus was one of the earliest and most influential architectural schools. Throughout the 1920s and 1930s, Bauhaus architects created buildings with simple shapes and flat surfaces. They featured open plans that lacked decoration.



Bauhaus later evolved into International Style. This style employed frequent use of transparency. Architects created "curtain walls" out of glass.

In the 1950s,

Brutalism would reject this trend. Instead, Brutalism architects used concrete and brick. They wanted their work to feel heavy and substantial, not light and airy.



3 *Key vocabulary /expressions.*

functionalism – функционализм;

form follows function – форма следует за функциональностью;

stark - сильный, суровый;

Modernism – Модернизм;

efficient – рациональный, четкий;

to embrace – брать на вооружение, учитывать;

machine – машина;

primary function – основная функция;

to inspire – вдохновлять;

industrial – промышленный;

sheet glass – листовое стекло;

monolithic – монолитный;

truth to materials – естественность материалов;

natural appearance – естественный вид;

Bauhaus – направление модернистской архитектуры, которое преобладало в 1930-1960-х гг., художественное течение, связанное с основными геометрическими фигурами (квадратом, треугольником, кругом) и базовыми цветами ;

influential – влиятельный;

open plans – открытая планировка;

to lack – отсутствовать;

decoration – украшение;

International Style – Интернациональный стиль архитектуры;

frequent use – частое использование;

transparency – прозрачность;

Brutalism – Брутализм- направление в архитектуре периода 1950-х — 1970-х годов, одна из ветвей послевоенного архитектурного модернизма.

4 *Complete the table.*

Architectural Style	Design feature
Bauhaus	1 _____ _____
2 _____ _____	Frequent use of transparency
Brutalism	3 _____ _____

5 Match the words (1-8) with the definitions (A-H).

- | | |
|--------------|-----------------------|
| 1 efficient | 5 transparency |
| 2 machine | 6 functionalism |
| 3 decoration | 7 Brutalism |
| 4 monolithic | 8 International Style |

- A a mechanical device that is designed to perform a particular function
 B not wasteful of materials or energy
 C a style that used substantial materials and repetitive shapes
 D design element that makes something more visually appealing
 E the quality of being easy to see through
 F an architectural principle that focuses on purpose rather than appearance
 G made or appearing to be made with a single, large stone
 H a school that rejected designs linking a structure to a specific location

6 Write a word or phrase that is similar in meaning to the underlined part.

- 1 The architect's motto is "the building's shape should be based on how it is used."
- 2 The school that combined art and technology started in Germany in 1919.
- 3 The designer prefers bare, minimal designs instead of elaborate ones.
- 4 The movement that emphasized function and simplicity lasted until the 1960s.
- 5 The single large space instead of numerous small rooms makes the building feel bigger.
- 6 Architects believed in the notion of "using materials in their natural form".
- 7 The architect designed a large wall made of a flat, clear material.
- 8 Architects used materials that are very frequently found in factories.

Text D The Middle Ages: the Gothic Period

1 *Read and translate the text*



The Gothic style was mainly introduced in Britain by the monastic order of Cistercians. They brought a simplified version of Gothic from their homeland in Burgundy, France. Many of the finest and largest works of English architecture the medieval cathedrals of England, were built in this Gothic style which flourished during the Middle Ages.

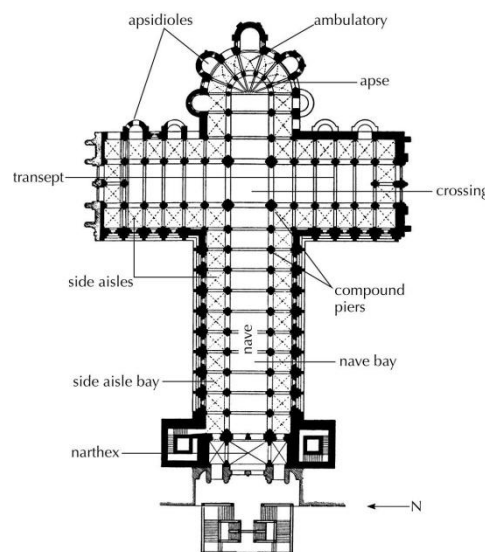
Characteristic features of this style include tall pointed arches and tall narrow windows and columns. This choice was due to the fact that the Cistercians wanted to show their ideas of spiritual elevation in all expressions of monastic life, including architecture.

There are three main periods in Gothic architecture:

1. Early English style dates back to the 13th century and its main features are tall, narrow, pointed windows with no decorative stonework.
2. The Decorated style was typical of the first half of the 14th century and introduced more decorative patterns of ornamental stone carving around windows and doors. The simple geometric shapes of the Early English period gave way to the use of more complex curves.
3. Perpendicular style is the third phase of Gothic architecture in England. It features large windows, vertical lines and fan vaulting (ceiling patterns in stone). This style characterized the second half of the 14th and 15th century.

Most Gothic churches have a cruciform plan. The nave is the main body of the church and is longer than the other three arms. Across the main body of the church is the transept.

The aisles are on the both sides of the nave, which is higher and wider. The nave receives direct lighting from a clearstory – the windowed area above the aisles. Masonry vaulting over the aisles and nave is a typical characteristic.



2 *Key vocabulary /expressions.*

Cistercians –Цистерцианцы;
simplified version –упрощенная версия;
medieval cathedrals –средневековые соборы;
to flourish –процветать;
the Middle Ages –Средневековье;
arch – арка;
due to the fact –из-за того, благодаря тому;
spiritual elevation –духовное возвышение;
pointed windows –остроконечные окна;
decorative patterns –декоративные узоры ;
carving –резьба, гравировка,
complex curves –сложные кривые;
fan vaulting –ребристый, веерный свод;
a cruciform plan – крестообразный план;
the nave –неф;
the transept – трансепт, поперечный неф;
aisle –проход, предел(церк.);
a clear story –верхний ряд окон, освещающий хоры ;
masonry vaulting - каменныйсвод.

3Answer the questions to the text.

- 1) Who introduced the Gothic style in Britain?
- 2) What works of English architecture are built in Gothic style?
- 3) What features is this style characterized by?
- 4) How many periods does Gothic architecture consist of? Name them.
- 5) What style characterized the second half of the 14th and 15th century?
- 6) What is the main body of the Gothic church?
- 7) What other typical characteristics of the most Gothic churches do you know?

3Choose the correct option

- 1 The Cistercians came from ...
 - A. Spain
 - B. France
 - C. Wales
- 2 They wanted to express their ideas of ... in architecture.
 - A. spiritual elevation
 - B. monastic life
 - C. decorative stonework
- 3 Early English style is characterized by ...

- A. 13th
B. 14th
C. 15th

4 Complete the table

<i>Period in Gothic Architecture</i>	<i>Time period</i>	<i>Characteristic features</i>
_____	_____	_____
_____	_____	_____
_____	_____	_____

GRAMMAR

Passive Voice.

Формы страдательного залога английских глаголов образуются с помощью вспомогательного глагола *to be* в соответствующем времени, лице и числе и **ПРИЧАСТИЯ II (Participle II)** смыслового глагола:

Перевод пассивного оборота во всех временах

Present Simple Tense

Houses **are built** very quickly now. 1. Дома строятся теперь очень быстро.

Past Simple Tense

The house **was built** last year.

1. Дом был построен в прошлом году.
2. Дом построили в прошлом году.
3. Дом построен в прошлом году.

Future Simple Tense

The house **will be built** next year.

1. Дом будет построен в будущем году.
2. Дом построят в будущем году.
3. Дом будет строиться в будущем году.

Present Continuous Tense

The house **is being built**.

1. Дом строится.
2. Дом строят.

Past Continuous Tense

The house **was being built** when I arrived.

1. Дом строился, когда я приехал.
2. Дом строили, когда я приехал.

Present Perfect Tense

The house **has (already) been built**.

1. Дом (уже) построили.
2. Дом (уже) построен.

Past Perfect Tense

The house **had been built** before I arrived.

1. Дом был построен, прежде, чем я приехал.
2. Дом построили, прежде чем я приехал.

Future Perfect Tense

The house **will have been built** by May.
маю.

1. Дом будет построен к маю.
2. Дом (уже) построят к маю.

Future Simple in the Past

He said that the house **would be built** next year.

1. Он сказал, что дом будет построен в будущем году.
2. Он сказал, что дом построят в будущем году.

Future Perfect in the Past

He said that the house **would have been built** by May.

Exercise 1. Complete the sentences using the Passive Voice (present or past) of the verbs in brackets:

Example: The car last year (buy).

The car was bought last year.

Машину купили в прошлом году.

1. Paper from wood (make).

2. The room every day (clean).

3. My car last week (steal). The next day it by the police (find).

4. She has a very good job. She £ 3000 a month (pay).

5. Two trees down in the storm last night (blow).

Exercise 2. Translate into Russian using the Passive Voice:

Example: The house was torn down in 1960.

Дом снесли в 1960 г.

1. This film is much talked about.

2. The mail was looked through in the morning.

3. Many new houses have been built this year.

4. When will this question be discussed?

5. All the meanings of this word were explained to them.

6. He had been told this news before he left.

7. At the party they were shown a very interesting film.

8. His jokes are always laughed at.

Exercise 3. Translate into English using the Passive Voice:

1. Над его шутками всегда смеются.

2. Ему сказали, что он должен прийти в 7 часов.

3. Не беспокойтесь, за вашими вещами присмотрят.

4. Им объяснили все значения этого слова.

5. Со мной так еще никогда не разговаривали.

6. Когда будет обсуждаться этот вопрос?

7. Мне только что предложили интересную работу.

8. На английском языке разговаривают во всем мире.

9. Об этом фильме много говорят.

Exercise 4. Translate these sentences into Russian, putting the correct form of a verb:

1. These tickets (was, were) booked beforehand.

2. This book (is, are) usually read by students.

3. When (was, is) this museum built?
4. (Were, are) these questions discussed at yesterday's meeting?
5. By whom (was, were) our guests met on Friday?
6. The luggage (will be, is) weighed and registered in ten minutes.

Exercise 5. Use the Passive Voice in these sentences:

Example: We watched this wonderful film yesterday.

This wonderful film was watched by us yesterday.

1. Mary invited her friends to her birthday party.
2. Students usually study English at the University.
3. The teacher will give a lecture after a break.
4. My friend gave me a nice kitten for my birthday present.
5. He takes his dog out for a walk two times a day.
6. She read this thrilling detective novel last month.

Exercise 6. Put the verbs into brackets in correct tense using the Passive Voice:

1. Those books (return) to the library yesterday. 2. The paintings (exhibit) till the end of the month. 3. Why your home task (not do)? 4. The patient (take) to the hospital today, and (operate) tomorrow morning. 5. This room (use) only on special occasion. 6. Letter must not (leave) here. 7. This newspaper (not read) because the pages (not cut). 8. Dictionaries may not (use) at the examination. 9. Usually the experiment (carry out) every day, but they (not carry out) yesterday. 10. The book (return) to the library yesterday. 11. Thousands of new houses (build) every year. 12. This room (not use) for a long time. 13. These methods (use) in production.

Exercise 7. Translate these sentences using the Passive Voice:

1. Эта книга была прочитана всеми. 2. Письмо будет отправлено завтра. 3. Её часто спрашивают? 4. На ваш вопрос ответят завтра. 5. Текст переводился вчера с двух до трёх. 6. Работа только что закончена нами. 7. Эти книги будут использоваться до конца года. 8. Телеграмма уже получена?. 9. Мне предложили очень интересную работу. 10. В нашем городе сейчас строится много новых зданий. 11. Ключи были утеряны вчера. 12. Делегацию нужно встретить завтра в 9 часов утра в аэропорту. 13. Вам сказали об этом? 14. Сотни новых домов будут построены к концу этого года. 15. Этот текст будет переведен к 10 часам завтра.

Unit3 Современная архитектура

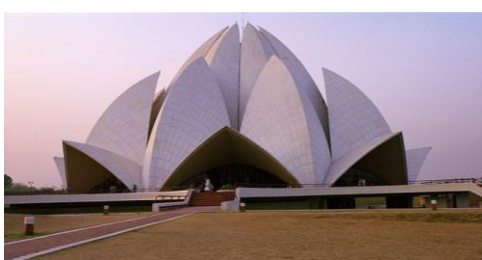
Text A. Contemporary Architecture: Fluidity.

1 Read and translate the text



In today's architecture, we see many surprising forms and structures. Some types of contemporary architecture are simply innovative approaches to traditional styles. Other types are radically different from historical architectural styles. In any case, contemporary architecture typically blends functionalism with aesthetic value. It tends to have a delicate, fluid appearance, which creates fascinating visual illusions.

Many types of architecture are associated with this dynamic style. Deconstructivism is characterized by unconventional shapes that create something unexpected. The outcome includes lines and forms that appear to be in motion rather than - static. Expressionist Architecture is centered on communicating emotions.



Forms are distorted to achieve an emotional effect. These designs can be breathtaking, disturbing, and beautiful all at once. Sculpturism is characterized by the influence of the fine arts. These buildings typically involve bold, curved structures. Sometimes these designs include recognizable

representations of scenes and people. In other cases, the meaning of the form is up for interpretation.

These styles should not be confused with Novelty Architecture. Its exaggerated shapes sometimes look like Deconstructivism, Sculpturism, and other contemporary forms. However, Novelty Architecture is generally commercial, and very literal. Contemporary architecture is more symbolic. It is based on artistic and philosophical ideas.



2 Key vocabulary /expressions.

contemporary – современный;
innovative – новаторский, передовой;
approach – подход;
aesthetic – эстетический;

to blend – смешивать;
 fluid – плавный, подвижный, изменчивый;
 illusion – иллюзия, видимость;
 dynamic – динамичный;
 Deconstructivism – Деконструктивизм – направление в современной архитектуре, основанное на применении в строительной практике идей французского философа Жака Деррида;
 unconventional shape – необычная форма;
 unexpected – неожиданный;
 outcome – результат;
 Expressionist Architecture – архитектура Экспрессионизма;
 are distorted – искажаются;
 breathtaking – захватывающий дух;
 disturbing – волнующий;
 Sculpturism – Скульптуризм;
 influence – влияние;
 curved – изогнутый;
 Novelty Architecture – Новая архитектура;
 to exaggerate – преувеличивать.

3 Choose the correct answers

- 1 What is the article mainly about?
 - A the characteristics of different types of architecture
 - B why certain types of architecture are better than others
 - C how modern architecture has influenced contemporary architecture
 - D the different materials used in contemporary buildings
- 2 According to the chapter, which of the following is the feature of Expressionist Architecture?
 - A rigid shapes
 - B fine arts influence
 - C distorted forms
 - D bold lines
- 3 What does novelty architecture have in common with contemporary architecture?
 - A exaggerated shapes
 - B commercialism
 - C literal representations
 - D philosophical ideas

4 Match the words (1-9) with the definitions (A-I)

- | | |
|---------------|----------------|
| 1 Dynamic | 6 Sculpturism |
| 2 Influence | 7 aesthetic |
| 3 Exaggerated | 8 fluid |
| 4 Distort | 9 contemporary |
| 5 Unexpected | |

- A having characteristics that flow
- B being dramatically magnified
- C related to beauty
- D not something people think will occur
- E to change something so it no longer resembles its previous form
- F having characteristics that change or progress
- G the person or thing that affects on outcome
- H made up of the characteristics of the present
- I an architectural style that is influenced by the arts

5 Read the sentence pairs. Choose which word or phrase best fits each blank

1 Expressionist Architecture/ illusion

A It gives the _____ of movement.

B In _____, buildings are designed to convey or provoke emotional response.

2 Novelty Architecture/ Deconstructivism

A The big donut on top of the shop is an example of _____.

B In _____, shapes are sometimes confusing and disturbing.____

Text B Everyday art: Architecture

1 Read and translate the text



Art is everywhere, and not just in museums. Wherever we go, we are likely to see extraordinary and imaginative art in contemporary buildings. Each style draws from different time periods. For example, today's Organic Architecture really emerged in the late 19th century. Its purpose was to integrate buildings with their natural surroundings. In

contemporary schools, Organic Architecture still seeks that union.

Neoclassical Architecture began as a resurgence of classical styles in the mid-eighteenth century. Much of its inspiration came from ancient Greece and Rome.



Today, Neoclassical architects focus on emphasizing large walls and planes to create a grand affect.



Structural Expressionism or High-Tech architecture emerged in the mid-twentieth century. Over the years, its characteristics have varied. But high-tech buildings still display technical parts, such as steel

structures and piping. In the 1980s, Critical Regionalism gave buildings local character by drawing inspiration from geographical surroundings. Today, buildings in this style use local materials to enhance their identities.



Appearing in the early 21 century, Blobitecture gave buildings an organic, wavy shape. These buildings often feature bulges protruding from their facades. The Neomodern period also largely influences architecture today. It is characterized by a renewed simplicity, as first seen in the modern era.



2_Key vocabulary /expressions.

imaginative – образный, творческий;

to draw – рисовать;

Organic Architecture – Органическая Архитектура;

to emerge – возникать;

to integrate – интегрировать;

to seek – искать;

Neoclassical – Неоклассика;

resurgence- возрождение;

inspiration – вдохновение;

to emphasize – подчеркивать, выделять;

Structural Expressionism(High-Tech) – Структурный Экспрессионизм (Хай-Тек);

piping – трубопровод;

Critical Regionalism – Критический Регионализм;

local – местный;

Blobitecture = blob architecture – архитектура нечётких форм;

wavy shape – волнистые форма;

bulge – округлый выступ, выпуклость;

to protrude – выступать, выдаваться;

Neomodern – Неомодернизм;

simplicity – простота.

3 Choose the correct answers

1 What is the article mainly about?

A Local examples of contemporary architecture

B Architects who specialize in contemporary architecture

C Time periods reflected in contemporary architectures

D Likely future trends in contemporary architecture

2 Which of the following is true of Critical Regionalism?

- A It draws from early Greek and Roman styles
- B It incorporates local materials
- C It typically displays technical parts
- D It is characterized by straight, rigid lines

3 Which contemporary influence emerged most recently/

- A Organic Architecture
- B Structural Expressionism
- C Neoclassical Architecture
- D Blobitecture

4 Match the words (1-8) with the definitions (A-H)

- | | |
|----------------|----------------------------|
| 1 Blobitecture | 5 Neomodern |
| 2 inspiration | 6 Organic Architecture |
| 3 Neoclassical | 7 simplicity |
| 4 High-Tech | 8 Structural Expressionism |

A having structural qualities that are functional and simple

B the quality of being plain

C someone or something that influences others' actions

D a type of architecture that focuses on technical and functional components

E a type of architecture in which buildings have an organic, wavy form

F being built to show its technical structure

G a type of architecture that focuses on union with nature

H being reminiscent of ancient styles and traditions

5 Complete the table.

<i>Styles of Contemporary Architecture</i>	<i>Time periods</i>	<i>Characteristic features</i>

6 Write a word or phrase that is similar in meaning to the underlined part.

1 The building where I had my meeting had a swollen, rounded area on the front of it.

2 In the late 1900s, there was a reappearance of more simple techniques.

3 The builders tried to incorporate two different styles into the design.

- 4 When Harold needs ideas for designs, he gathers information from classical architecture.

Text C. Bio-Architecture

1 Read and translate the text

Bio-architecture is new building approach that respects life and earth. Its aim is to create “healthy” building with little ecological impact ,creating harmony between buildings and nature . For this reason two basic principles have to be followed:

- Using the nature presence of the sun, good thermal insulation and nature ventilation to reduce energy consumption;
- Using renewable energy resources (solar, wind, water and geothermal) to achieve energy autonomy;

Bio-architects and designers follow the principles of natural design that rule all nature, so by studying and understanding the regularity and balance that we can find in nature , they try to establish rules that can be applied to architecture . They use special geometric shapes , symmetries, proportions, natural patterns and universal symbols to create pleasant and harmonious spaces. Bio-architects follow simple rules that include:

- Designing spaces using natural geometries , shapes and growth patterns in order to create sustainable systems;
- Avoiding “negative”forms such as sharp angles, and creating harmonious spaces;
- Using all kinds of biological materials and avoiding steel, aluminum and plastics when possible;

The materials used in bio-architecture should be chosen paying attention to the damage (production of toxic gases, water and soil pollution) that they may cause to the environmental ecosystem. Eco-materials should:

- Be biodegradable and recyclable;
- Not be dangerous for out health;
- Contribute to a more sustainable environmental future;

Examples of materials that can be used in bio-architecture are timber, brick, stone, cork and natural paints and varnishes. It is easy to choose eco-friendly materials thanks to certifications.

2 Key vocabulary /expressions.

new approach – новый подход;

ecological impact – экологическое воздействие;

thermal insulation – теплоизоляция;
 to reduce energy consumption – чтобы уменьшить потребление энергии;
 renewable – возобновляемые источники;
 to achieve – достигать;
 to establish rules – устанавливать правила;
 geometric shapes – геометрические фигуры;
 harmonious space – гармоничное пространство;
 sustainable – устойчивый, стабильный, жизнеспособный;
 sharp angles – острые углы;
 to avoid – избегать;
 to cause damage – наносить вред;
 toxic gas – токсичный газ;
 soil pollution – загрязнение почвы;
 biodegradable – биоразлагаемый;
 recyclable – пригодный для переработки;
 eco-friendly – экологически-чистый;
 timber – древесина;
 cork – пробковое дерево.

3 Make words combinations

soil	materials
toxic	architecture
eco	resources
bio	angle
basic	gases
energy	spaces
geometric	principle
harmonious	pollution
sharp	system
sustainable	shapes

4 Read the text again and answer the questions:

- 1) What is the aim of bio-architecture?
- 2) What are two basic principles of this architecture?
- 3) What do bio-architects use to create pleasant and harmonious spaces?
- 4) What rules do bio-architects follow?
- 5) What characteristics should eco-materials have?

5 Decide whether these statements are True or False.

- 1) Sustainable architecture aims at creating harmony between man and nature.
- 2) Bio-architecture tries to mirror the balance we find in nature.
- 3) The rules of bio-architecture are very complex.

- 4)Sharp angles are a good example of harmonious spaces.
 5)Steel and plastics are widely used in bio-architecture.

GRAMMAR

Participle 1

Причастие 1 (причастие настоящего времени), образованное при помощи окончания **–ing**, имеет активную и пассивную (страдательную) формы:

	Несовершенный вид	<i>Совершенный вид</i>
Active активная	asking	having asked
Passive страдательная	being asked	having been asked

Причастие 1 употребляется в функции:

1. Определения:

*The man **sitting** at the table is our teacher.* -Человек,**сидящий** за столом- наш учитель.

*The houses **being built** in our town are not very high.* –Дома,**строящиеся** в нашем городе, невысоки.

2. Обстоятельства:

Going home I met an old friend.-**Идя** домой, я встретил старого друга.

Having finished work I went home.-**Закончив** работу, я пошел домой.

Participle II

Причастие II (причастие прошедшего времени) всегда пассивно. Образуется оно прибавлением суффикса –ed к основе правильного глагола или путем чередования звуков в корне неправильного глагола.

Причастие II употребляется в функции:

1. Определения.

*The book **translated** from English is very interesting.* - Книга, переведенная с английского языка, интересная.

2. Обстоятельства (причины и времени):

Given the task he began to work.-Когда ему дали задание, он начал работать.

If annealed, steel becomes mild.-**Если** сталь отжечь, она становится мягкой.

Если перед причастием прошедшего времени в функции обстоятельства стоят союзы **if, when**, то оно переводится на русский язык обстоятельственным придаточным предложением.

Steel hardens when **hammering**.- Сталь упрочняется, когда её проковывают.

- Если причастия настоящего и прошедшего времени стоят перед определяемыми существительными, то они, утрачивая в значительной степени своё отглагольное значение, выражают качество и приближаются по значению к обычному прилагательному:

Alloyed steel- легированная сталь;

Sold goods- проданный товар.

- Если причастия настоящего и прошедшего времени стоят после определяемого существительного, то они не выражают качества, а имеют лишь глагольное значение. Такие причастия могут быть заменены определительным придаточным предложением.

All parts **machined**-все детали, которые были обработаны

Instructions **received**- получение инструкции (инструкции, которые были получены)

Exercise 1. Translate Participles and compose sentences with them:

Machining-machined

Welding-welded

Heating-heated

Connecting-connected

Manufacturing-manufactured

Exercise 2. Translate sentences:

1. We used parts welded from two pieces.
2. The electrodes being used were not of good quality.
3. Spectrography is a reliable method being used in materials testing.
4. When used, this method gives the best results.

Exercise 3. Form Participle I from the following verbs and translate them into Russian:

e.g. to invent – inventing – изобретать, изобретающий

to construct, to talk, to reach, to lead, to disclose, to describe, to hold, to address, to take part, to wait.

Exercise 4. Express the following in Russian:

1. The young man holding a bouquet of flowers is my friend. 2. Do you know the name of the speaker standing at Nelson's Column? 3. The boys and the girls decorating the interior of the club are students of our group. 4. The guide joined the group of tourists who were gathering near the arch. 5. Taking part in the Olympic games this year the runner set a new record. 6. This style of flat and shallow carving continued in the centuries to come. 7. In his work the

architect used supporting arches and columns of the Greek order. 8. As to the exterior he planned to construct covered porticos linking the corridors. 9. Being very old Tom could not walk very fast.

Exercise 5. Express the following in English:

рисующий, украшающий, принимающий участие, бегущий, стоящий, бросающий, создающий, наблюдающий, устраняющий, движущийся, держащий, хватающий;

художник, рисующий картину; рабочие, украшающие здание; атлет, бросающий диск; лектор, обращающийся к студентам; здание, стоящее фасадом к парку; колонны, поддерживающие крышу; изучая этот предмет; изобретая новый метод; держа вазу в руках; поднимаясь по лестнице; выступая (разговаривая) с трибуны; украшая интерьер.

Exercise 6. Make sentences beginning Having ... :

Having finished the work, she went home.

1. She finished her work. Then she went home.
2. We bought our tickets. Then we went into the theatre.
3. They continued their journey after they'd had dinner.
4. After Lucy had done all her shopping, she went for a cup of coffee.

Exercise 7. Make sentences beginning –ing or Not –ing. Sometimes you need to begin with Having (done something):

Feeling fired, I went to bed early.

1. I felt tired. So I went to bed early.
2. I thought they might be hungry. So I offered them something to eat.
3. She is a foreigner. So she needs a visa to stay in this country.
4. I didn't know his address. So I wasn't able to contact him.
5. Sarah has travelled a lot. So she knows a lot about other countries.
6. The man wasn't able to understand English. So he didn't know what I wanted.
7. We had spent nearly all our money. So we couldn't afford to stay in a hotel.

Exercise 8. Put the sentences together, using conjunction+...ing

BEGININGS	ENDS
Don't go swimming	Before(talk) to Eric
Have a rest every hour or so	Before (go) on stage
He has been terribly depressed	He began to feel ill
I had a word with Janet	Immediately after (eat)
I often solve problems in my head	Since (fail) the exams
She always gets nervous	We haven't even time to unpack
Since(come) back from America	When (drive) long distance
A few days after (return) from	While (run)

Exercise 9. Rewrite the sentences, using -ing or -ed clauses without conjunctions

1. As he had left school at twelve, he had no qualifications.
2. It tastes delicious if it is fried in butter and sprinkled with lemon juice.
3. She worked over to her desk and picked up her paper.
4. The water came into the houses, and flooded the downstairs rooms.
5. As I knew his tastes, I took him a large box of expensive chocolates.
6. He put on his coat and went out.
7. A lorry broke down in Bond Street, and caused a massive traffic jam.
8. As I didn't want to frighten her, I phoned before I went round.
9. If it is sent first class, it should arrive tomorrow.
10. At 3 a.m. Simon came in, and woke everybody in the house.

Unit 4 Архитектура будущего

Text A. Nanotechnology's for Real in the Building Industry.

Read and translate the text

Nanotechnology is sometimes seen as all hype, with little real world application. But nanomaterials are already all around us. Take the buildings that we live and work in, for instance. You will find nanotechnology used to create stronger steel, self-cleaning glass, solar-collecting fabrics, and even smog-eating concrete. And not only are these nanomaterials present in our buildings, they are making them better places to live and work.

Self-cleaning glass has a nanoparticle coating dirt can't stick to, eliminating the need for expensive and dangerous manual window washing on tall buildings. Solar-collecting fabric is the first of a new wave of building components that convert solar radiation into electricity. That means no more applying unattractive solar panels to the roof, but instead integrating energy production into building facades. Nanocomposite steel is more corrosion resistant than conventional steel, and can reduce installation costs by up to 50%. And the quantity required to make a building may be up to 40% less than conventional steel. Smog-eating concrete is produced by applying a nanolayer of titanium dioxide to concrete, which triggers a catalytic reaction that destroys many pollutants in contact with surface. At the very least, these materials reduce building maintenance costs, leaving more money for other improvements, and they can help clean up the environment. They can reduce energy costs as well. And for every nanomaterial available today, there are approximately seventy more in research and development, meaning that building construction and architecture are in for some big changes thanks to small technology.

2 Find in the text:

приблизительно –	сокращать -
поверхность –	загрязняющий агент –
обычный –	обман -
коррозионно-устойчивый –	самоочищающийся -
высотное здание –	солнечные панели -
обычная сталь –	затраты на установку -

3 Explain what is :

- smog-eating concrete;
- nanocomposite steel;
- self-cleaning glass;
- solar-collecting fabric.

4 Find in the text antonyms to the words:

increase –
cheap –
safe –
deinstallation –
exactly –

5 Find in the text synonyms to the words:

start –
change, reconstruct –
use –
material, cloth –
usual –

6 Make up the plan of the text.

7 Define the tense forms:

Are making, to create , convert , can reduce , is produced, is seen, live and work, can't stick to , will find, are.

Text B. Smart buildings - the buildings of the future.

1 Read and translate the text



Traditionally, conversations about infrastructure have focused on improving roads and bridges. But now infrastructure comes in many forms — physical and virtual. It's made of more than just concrete and steel; it's also about power grids, telecommunications, smart factories, and Internet-of-Things-enabled buildings.

What all of this really means is that the next generation of automation is here. From assembly-line robotics to driverless cars, it's transforming the modern business agenda, lifestyle, and infrastructure of our society. And part of this idea of smart infrastructure is also about connected buildings that leverage big data for predictive capabilities and energy efficiency.

Siemens is at the forefront of this digital transformation of buildings for customers in the US. Its automation expertise and technology portfolio connects various building systems to an [integrated building management system \(IBMS\)](#), monitoring and controlling things such as lighting, heating, fire safety, and security.

The IBMS is effectively the "brain" of the building. Using a cloud-based platform, it collects significant amounts of data about the building, and combines it with more data about occupant behavior to increase productivity and efficiency, and also reduce downtime and labor costs.

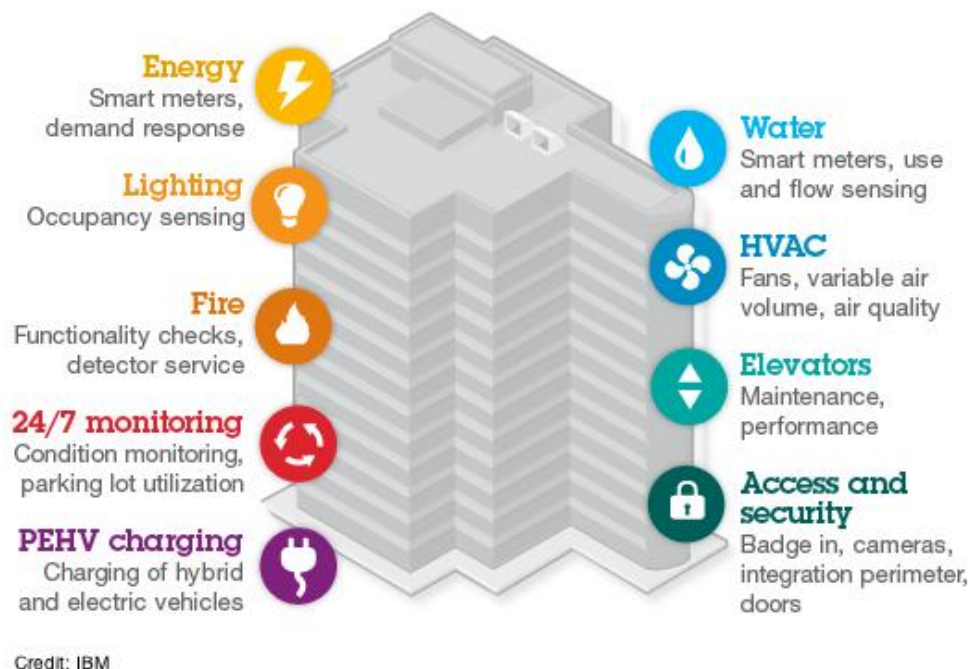
Siemens has also developed an Intelligent Infrastructure Solutions concept, or "I2S", which is a customer-centric approach built around three core components: IBMS ("the brain"), [Advanced Analytics \(with the Navigator platform\)](#), and [Digital Services](#). Advanced Analytics monitors energy consumption, system performance, energy supply, and many other components that go into optimizing building performance. Digital Services is where highly skilled building experts at Siemens work with customers to determine and apply the right combination of solutions, services and data to meet their needs.

While building technologies have been around for some time, they're now being used successfully in different ways. Today, they can offer a glimpse look into the future, as they allow us to predict maintenance requirements. Building operators can also be in two places at once, by remotely accessing systems in

real time. Not needing to be on-site, in terms of either time or place, is the main idea behind the ultimate tech-trend endgame: autonomous buildings.

The next shift will move building owners and managers away from reactive and preventative behavior and more toward a predictive and proactive mindset. Advanced analytics, for example, will be able to anticipate and set optimal temperature points, based on calendar and weather data. Eventually, the building may know what you need before you want it, helping to save money and fight climate change — all on its own.

The idea of autonomous buildings once seemed so far away. But with each technological advancement, it's becoming closer to reality.



2 Key vocabulary /expressions

infrastructure – инфраструктура;

power grids – электросети;

assembly-line robotics – конвейерная робототехника;

modern business agenda – современная деловая программа (повестка);

of our society – нашего общества;

predictive capabilities – прогнозируемые возможности;

energy efficiency – энергоэффективность;

digital transformation – цифровое преобразование;

integrated building management system (IBMS) – комплексная система управления зданием;

fire safety – пожарная безопасность;
significant amounts of data – значительный объем данных;
to combine – сочетать;
productivity – производительность;
to reduce downtime – сокращать время простоя;
consumption – потребление;
highly skilled – высококвалифицированный;
to have a glimpse look into the future – заглянуть в будущее;
maintenance requirements – требования к техническому обслуживанию;
remotely accessing systems – удаленный доступ к системам;
technological advancement – совершенствование технологии.

3 Make up your own sentences with the topical words.

4 Divide the text into logical parts and make the plan.

5 Say whether these sentences are True or False.

- 1) Now infrastructure comes in only one form.
- 2) The next generation of automation is transforming the modern business agenda, lifestyle, and infrastructure of our society.
- 3) The IBMS is effectively the "heart" of the building.
- 4) "I2S" is a customer-centric approach built around four core components.
- 5) Digital Services is where highly skilled building experts work with customers to determine and apply the right combination of solutions, services and data.
- 6) Building operators can only be in one place by remotely accessing systems in real time.
- 7) With each technological advancement, the idea of autonomous buildings is becoming closer to reality.

6 Answer the following questions:

- 1) In what forms does infrastructure come?
- 2) What is transforming our modern business agenda, lifestyle, and infrastructure of our society?
- 3) What is IBMS?
- 4) What does this system connect and for what purpose?
- 5) What are the three main components of an Intelligent Infrastructure Solutions concept, or "I2S"?
- 6) What is Advanced Analytics?
- 7) What are Digital Services?
- 8) What are building technologies allow us to predict?

Text C 3D Concrete Printing: The Future of Construction

Read and translate the text



The introduction of highly sophisticated computer modeling technologies has meant that designing the shape and form of a building is now only limited by an architect's imagination. Leading architectural practices such as [Foster+Partners](#) are designing buildings to a level of geometrical complexity unheard of ten years ago. However, while these forms can often be achieved through offsite factory-based manufacturing techniques, there are significant limits to the levels of intricacy obtainable. For example, pouring concrete into a framework can go some way to fulfilling these ambitions, but the reality is that the achievable complexity is still limited. The manufacturing processes required to turn these complex building designs into reality have remained elusive—until now.

This may be about to change, if current research in the [Freeform Construction Project](#) at Loughborough University comes to fruition. The research group has been inspired by 3D printing, an additive manufacturing process. Here, information created from computer generated models is exported to a 3D printer, which then builds up a model, or a component, layer by layer. The virtual model is, in effect, materialized. At Loughborough, instead of using powder and glue, they are experimenting with concrete, to create large scale building components.

Xavier De Kestelier, Associate Partner at Foster+Partners, says, “The research here at Loughborough University gives us tremendous opportunities. We are able to have a little peak into the future, to see what would construction then actually will be in the next five to ten years.”

Concrete printing works on the basis of a highly controlled extrusion of cement based mortar, which is precisely positioned according to computer data. The process has the potential to create architecture that is more unique in form, but crucially, components do not have to be made from solid material, and so can use resources more efficiently than traditional techniques.

Dr. Richard Buswell, Principle Investigator at Loughborough University adds, “This process is capable of producing building components with a degree of customization that's not yet been seen. And it could create an era of architecture that's adapted to the environment and fully integrated with engineering function.”

Imagine whole sections of a building being printed and then assembled on



site with their service provision already installed. Above all, imagine a building whose form and scale could take on limitless possibilities.

2 Key vocabulary /expressions

highly sophisticated – очень сложный;
computer modeling – компьютерное моделирование;
imagination – воображение;
geometrical complexity – геометрическая сложность;
can be achieved – может достигаться;
manufacturing techniques – технология производства;
intricacy – сложность;
pouring concrete – заливка бетона;
framework – каркас;
to require – требовать;
current research – текущее исследование;
fruition – осуществление;
to be inspired – вдохновляться;
virtual model – виртуальная модель;
large scale – широкомасштабный;
tremendous – огромный;
extrusion – выдавливание, экструзия;
solid material – твердый(прочный) материал;
mortar – раствор;
a degree of customization – степень адаптации;
to be adapted – адаптироваться;
assemble on site – собирать на объекте;
to install – устанавливать;
limitless possibilities – безграничные возможности.

3 Finish the sentences with suitable endings.

- 1) The introduction of highly sophisticated computer modeling technologies has meant... .
- 2) Leading architectural practices are designing buildings to... .
- 3) The research group has been inspired by 3D printing
- 4) Information created from computer generated models is exported to a 3D printer, which then... .
- 5) Concrete printing works on the basis of... .
- 6) It could create an era of architecture that's... .
- 7) Imagine whole sections of a building being printed and then

4 Read the text again and make up the plan of it.

GRAMMAR

The Gerund

Герундий- это неличная форма глагола, которая выражает действие как процесс, и образуется прибавлением окончания – **ing** к основе глагола. Герундий является промежуточной формой между глаголом и существительным и поэтому обладает свойствами глагола и существительного.

СВОЙСТВА ГЛАГОЛА И ГЕРУНДИЯ

1. Герундий имеет следующие формы времени и залога:

	<i>Active</i>	<i>Passive</i>
<i>Indefinite</i>	Writing	being written
<i>Perfect</i>	having written	having been written

Indefinite Gerund выражает процесс в наиболее общем виде и действие, одновременное с действием глагола в личной форме.

*We prefer **using** new methods of work.*

Мы предпочитаем использовать новые методы работы.

*We prefer new methods of work **being used**.*

Мы предпочитаем, чтобы использовались новые методы работы.

Prefect Gerund выражает действие, которое обычно предшествует действию, выраженному глаголом в личной форме.

*I remember **having given** this instruction.*

Я помню, что дал (давал) это указание.

*I remember **having been given** this instruction.*

Я помню, что мне давали это указание.

Чаще всего формы пассивного герундия на русский язык переводятся придаточными предложения.

1. Герундий может иметь прямое дополнение:

*We are interested in **improving** working conditions.*

Мы заинтересованы в том, чтобы улучшить условия работы (в улучшении условия работы).

2. Герундий может определяться наречием:

*We have to insist on your **replying** promptly.* Мы вынуждены настаивать, чтобы вы ответили немедленно.

Свойства существительного у герундия

1. Герундий может определяться притяжательным местоимением или существительным в притяжательном падеже:

*Insist on his (the inspector's) **coming** as soon as possible.* Я настаиваю на том, чтобы он (инспектор) приехал как можно скорее.

2. Перед герундием может стоять предлог:

*On **receiving** a letter we shall immediately take action.* По получении

письма мы немедленно примем меры.

Употребление герундия

1. После следующих глаголов без предлогов:

а) **to begin, to start, to finish, to stop, to continue, to keep** (продолжать) и др.

Please keep sending us letters at this address. Пожалуйста, продолжайте посылать нам письма по этому адресу.

б) **to like, to enjoy, to prefer, to mind, to excuse, to remember, to suggest, to avoid, to need, to want, to require** и др.

The results need being checked. Результаты необходимо проверить.

2. После глагола с предлогами:

to apologize for, to thank for, to look forward to, to congratulate on, to insist on, to depend on, to object to, to be interested in, to be responsible for и др.

We insisted on continuing the experiment. Мы настаивали на продолжении эксперимента.

3. После существительного с предлогом: **way of, programme of, reason for, process of** и др.

The way of using is indicated in the instructions. Способ использования указан в инструкциях.

4. После составных предлогов и словосочетаний:

On account of в виду, из-за

Because из-за

Due to благодаря, из-за

With a view to с (для того чтобы)

Despite несмотря на

We could not continue the work because of no raw materials being supplied.

Мы смогли продолжать работу из-за отсутствия поставки сырья.

Герундий употребляется:

1. В качестве подлежащего:

Reading is useful. Чтение полезно.

2. Как часть сказуемого после глаголов **to finish, to start, to continue, to go on, to keep** и др.

He started reading the book. Он начал читать книгу.

3. Как предложное пополнение:

I am fond of reading. Я люблю читать.

4. Как прямое дополнение:

Do you mind my reading here? Вы не против моего чтения здесь?

5. Как обстоятельство времени:

After reading he closed the book. После чтения он закрыл книгу.

6. Как обстоятельство образа действия:

Instead of reading he went to the movies. Вместо чтения он пошел в кино.

Перевод герундия на русский язык

Герундий может переводиться на русский язык:

1. Существительным
*We are interested in **buying** these goods.* Мы заинтересованы в покупке этих товаров.
2. Инфинитивом
*Everybody went on **working**.* Все продолжали работать.
3. Деепричастием
*On **coming** to the laboratory he got down to work.* Придя в лабораторию, он принялся за работу.
4. Придаточным предложением
*We regretted **having done** it.* Мы сожалели о том, что сделали это.

Exercise 1. Find the Gerund and define its meaning:

1. Would you please stop writing to us at this address?
2. What is the result of melting two metals together?
3. We can start welding by touching the weld with electrode tip.
4. Please, excuse me for waiting too long.
5. The process can go faster due to raising the temperature.
6. Some time was lost because of necessary preparing.
7. Poor heat treatment is responsible for breaking of the parts.
8. We are interested in buying these goods.
9. They insisted on being sent the result of machine tests.
10. What is the purpose of his going there?
11. I am grateful for his helping me. I am grateful for his having helped me.
12. We inform you of the tests being successfully done.
13. We thank you for sending us your letter.
14. The method of steel hardening depends on the properties we want to get.
15. We can start testing the materials as soon as we receive them.
16. We can locate the growing of the inner crack by ultrasound control.
17. Upon reviewing the records of tests we could find the reason of failure.

Exercise 2. Translate into Russian. Define the Gerund and the Verbal nouns:

I'm fond of reading books. Reading always has been a pleasure for me.
Quick walking is good exercise. She liked walking quickly.
His being invited to take part in this work is natural.
I was awakened by their loud talking.
He took part in the sittings of the committee.

Exercise 3. Answer the questions using the notes in brackets:

Mike: Is your car working now? (they/not/finish/repair/it)

You: No, *they haven't finished repairing it* get.

1. Laura: Have you done the crossword? (I/give up/try)

You: No,

2. Daniel: There's story here in the paper about a 110-year-old man.
(I/can/not/imagine/be)

You: Good Lord. so old.

3. Tom: Do you like football? (I/enjoy/watch/it/on TV)

You: Well,

4. Rachel: Whose idea was in to invite all these people? (suggest/have/a party)

You: I'm not sure. Someone

Exercise 4. Some friends have had a meal together in a restaurant. Put in the inn-forms. Use these verbs: change, discuss, eat, miss, ring, try, wait, walk, get:

Vicky: Shall we go then?

Rachel: Daniel hasn't finished *eating* yet.

Daniel: It's OK it's just a piece of chocolate.

Matthew: Chocolate? After that enormous meal?

Daniel: I know. I've eaten too much. When I find something new on the menu, I just can't resistit.

Rachel: How are we getting home?

Vicky: I don't mind I feel like some fresh air.

Rachel: You're crazy. It's miles. And we've just eaten.

Matthew: I suggest for a taxi. It'll save around for a bus.

Emma: Good idea. I couldn't face cold again after being in the warm all evening.

Rachel: Yes, the bus journey is too complicated. It involves buses in the centre. We don't want to risk A bus and having to wait half an hour.

Daniel: Or we could take a taxi to the bus station and then get a bus from there.

Matthew: Well, you can carry on the problem, but I'm going to ring for a taxi.

Exercise 5. Complete the conversation between Claire and her sister Sophie:

Put in the verbs with these prepositions: for, in, like, of, on.

Sophie: Where's that little radio of yours?

Claire: Oh, it got broken. Henry knocked it off the table. Unfortunately he hasn't succeeded in getting (get) it to work again.

Sophie: Oh, what a pity.

Claire: It was only a cheap thing. In fact I'd been thinking (buy) a new one. But Henry not only apologized (break) it, he insisted (buy) me a much nicer one. It's in the dining-room.

Sophie: Henry is such a gentleman.

Claire: He didn't really need to buy me one, but I didn't feel
(argue).

Exercise 6. Comment on these situations. Join each pair of sentences using a preposition and an ing-form:

The police prevented the crime. It didn't take place.

The police prevented the crime from taking place.

1. Laura blamed Trevor. He forgot the tickets.

Laura

2. The doctors succeeded. They saved the driver's life.

The doctors

3. The customers complained. They didn't receive the goods.

4. Emma has accused Matthew. She says Matthew broke his promise.

.....

5. Melanie is insisting. She's going to cook a meal for David.

6. A new traffic scheme has stopped cars. They can't go into the town centre.

.....

7. Everyone congratulated Claude. He won the quiz competition.

.....

8. Some football fans were arrested. They attacked a policeman.

.....

Exercise 7. Complete Emma's letter to her friend Kristy. Put in a preposition and an ing-form:

Thank you for inviting (invite) me to come and see you next month. I'm already excited (see) you again.

You must be very pleased (get) the job you wanted. Congratulations. Personally, I wouldn't be keen (travel) forty miles to work.

I apologize (not write) sooner, but a week in bed with flu has prevented me (do) anything. I haven't even felt (write) letters until today. I must be getting better because I'm starting to feel bored (do) nothing. I'm thinking (go) back to work tomorrow.

Exercise 8. Underline the Gerund:

1. I don't mind going for a walk on Sunday.

2. "Do you mind my borrowing your textbook?" asked he.

3. "Is this new film worth seeing?" "Certainly, it is," she answered.

4. "What is Mr. Smith doing?" "He is busy reading the letters."

5. He couldn't help telling her that her acting was marvelous.

6. What are his reasons for refusing their invitation?

7. Instead of stopping the rain increased.

8. His coming late surprised everybody.

Exercise 9. Put the verbs in brackets in the correct form:

1. Do you mind ... (travel) such a long way to work?
2. Ann loves ... (cook) but she hates (wash) up.
3. I tried to be serious but I couldn't ... (laugh).
4. You can improve your English by ... (do) a lot of reading.
5. Tom left without ... (finish) his dinner.
6. She ran five miles without ... (stop).
7. They got into the house by ... (break) a kitchen window and climbing in.
8. It's nice to go on holiday without ... (have) to worry about money.

Exercise 10. Choose the prepositions given in brackets (in, of, for, to, like, on):

He insisted ... buying me a dress.
I'm looking forward ... meeting her.
Has he succeeded ... finding a job yet?
He apologized ... keeping me waiting.
I'm thinking ... buying a flat.
We don't feel ... going out tonight.

Exercise 11. Complete the sentences using the words in brackets.

- Rachel: Do you want to walk? Vicky: Yes, let's get a bus. (instead of)
Vicky wants to walk instead of getting a bus.
1. Sarah: Did you get through the work? Mark: Yes, I stayed up all night.
(by) Mark got through the work
 2. Melanie: When do you take the pills? David: The minute I wake in the morning. (on) David has to take the pills
 3. Mike: So you got the answer? Harriet: Yes, and I didn't use a calculator.
(without) Harriet got the answer
 4. Emma: Why the rucksack? Matthew: So I can carry the food. (for) The rucksack is
 5. Trevor: Sorry I forgot the sugar. Laura: Well, you had it on your list.
(in spite of) Trevor forgot the sugar
- Mark: Do you have to do the typing? Secretary: Yes, and book some flights.
(as well as) The secretary has to book some flights.

Unit 5 Знаменитые архитекторы и инженеры.

Text A FRANCOIS HENNEBIQUE (1842-1921), REINFORCED CONCRETE PIONEER.



1 Read and translate the text

F. Hennebique was born in France, in the family of a farmer. Already in his childhood he became fond of natural sciences and spent his free time on reading books on natural sciences.

At the age of 18 he became an apprentice of a builder and at the same time he continued his studies of theoretical technology. At the age of 25 years Hennebique specialized in restoring churches. He travelled all over the country (France) visiting cathedrals and examining their architecture and construction. As years passed by, he grew interested in railway works, including bridges and viaducts.

In 1844 he designed a house for a client and, to prevent damage by fire, combined good-quality steel (as opposed to iron) with concrete in compression. In this way he realized a new idea to put steel rods in the bottom of the slab in order to prevent any damage by fire. That building with its fire resistance guarantee was completed in 1880 and stood until destroyed during the First World War. From that time on, F. Hennebique concentrated on the development and production of reinforced concrete constructions.

One of his reinforced concrete buildings of that time, a single-storey structure in Paris, had a concrete and glass roof.

His first concrete bridge was designed and constructed in 1899. Soon his name was associated with bridges all over the world, and, by 1906, he had designed 700 (with an average of over 100 a year), since the construction of the first reinforced concrete bridge. And by 1920 he had completed 3600 bridges (!)

F. Hennebique travelled all over Europe setting up his agencies and firms. Contracts with his numerous clients had doubled each year and by 1917 his firms had completed 35000 contracts. He also constructed reservoirs and water works and by that time there were 7500 of them completed. As to his railway works (total 300), they included offices and hotels in Cairo. He built the enormous sports stadium in Turin covering an area of 11 ha, with places for 70000 spectators.

In Britain the first building in reinforced concrete was a six-storey concrete framed construction. As to the 15-storey Royal Liver Building in Liverpool, it was built in 1909 and up till now is considered to be Britain's first "skyscraper". Built with an entirely reinforced concrete frame, the building has become a symbol of the city. F. Hennebique left behind a great number of very fine and famous buildings and structures. But that is not all! Maybe his greatest contribution to the industry was the fact that he attracted and trained a great number of talented engineers who were to go on and develop their own practices. Many of them became consulting engineers working not only with reinforced concrete. They dealt also with many fields of general engineering.

2 Key vocabulary /expressions

natural sciences – естественные науки;

an apprentice – ученик;
 to restore – восстанавливать;
 good-quality steel – качественная сталь;
 concrete – бетон;
 steel rods – стальные стержни;
 bottom of the slab – нижняя часть плиты;
 fire resistance – огнестойкость;
 reinforced concrete constructions –
 to be associated – железобетонные конструкции;
 bridge – мост;
 to set up – устанавливать;
 numerous clients – многочисленные клиенты;
 to complete – завершать;
 skyscraper – небоскреб;
 frame – каркас;
 greatest contribution – крупнейший вклад;
 to deal with – иметь дело ;
 many fields of general engineering – во многих отраслях машиностроения.

3 Answer the questions:

- 1) What was F. Hennebique fond of in his childhood?
- 2) Why did he begin to put steel rods in the bottom of the slab?
- 3) What did F. Hennebique concentrate on?
- 4) When did he design his first bridge?
- 5) How many bridges had he completed by 1920?
- 6) What did F. Hennebique construct besides the bridges?
- 7) What building is considered to be the first Britain's "skyscraper"?
- 8) What is his greatest contribution to the construction industry?

4 Make up word combinations

natural	concrete
theoretical	stadium
bottom	technology
damage	engineering
fire	sciences
reinforced	construction
numerous	resistance
enormous	by fire
framed	clients
general	of a slab

5 Find in the text synonyms to the words:

to go on –
 a building –

understand –
to stop –
was finished –
start, arrange –
to instruct –
colossal –
many, great number –

Text B THE FATHER OF THE AMERICAN SKYSCRAPER

1 Read and translate the text



William Le Baron Jenney (1832-1907) was an American civil engineer and architect who became known as the Father of the American skyscraper. Jenney was born in Fairhaven, Massachusetts on September 25, 1832. Jenney first began his formal education at the Lawrence Scientific school at Harvard in 1853, but transferred to Paris to get an education in engineering and architecture. He graduated in 1856, one year after his classmate, Gustave Eiffel, the designer of the Eiffel Tower. In 1861, he returned to the US to join the Union Army as an engineer in the Civil War. After the war, in 1867, Jenney moved to Chicago, Illinois and began his own architectural office, which specialized in commercial buildings and urban planning.

In 1998, Jenney was ranked number 89 in the book "1,000 Years, 1,000 People: Ranking the Men and Women Who Shaped the Millennium". Jenney is best known for designing the ten-storey Home Insurance Building in Chicago. The building was the first fully metal-frame skyscraper, and is considered the first skyscraper. It was built from 1884 to 1885, enlarged in 1891, and demolished in 1931. In his designs, he used metal columns and beams, instead of stone and brick to support the building's upper levels. The steel needed to support the Home Insurance Building weighed only one-third as much as a ten-storey building made of heavy masonry. Using this method, the weight of the building was reduced, thus allowing the possibility to construct even taller structures.

Later, he solved the problem of fireproof construction for tall buildings by using masonry, iron, and terracotta flooring and partitions. He displayed his system in the Leiter Building, also built in Chicago between the years 1889 and 1891.



2 Key vocabulary /expressions

civil engineer and architect – инженер-строитель и архитектор;
 to transfer – переводить, переносить;
 to graduate – заканчивать;
 urban planning. – планирование города;
 was ranked – занял;
 fully metal-frame – полностью металлический каркас;
 is considered – считается;
 to demolish – сносить, разрушать;
 to enlarge – расширять;
 upper levels – верхние уровни;
 the weight – вес;
 to reduce – сокращать;
 allowing the possibility – разрешая вопрос о возможности;
 fireproof construction – пожаробезопасная конструкция;
 partition – перегородка.

3 Say whether these sentences are True or False.

- 1) William Le Baron Jenney (1832-1907) was an Italian civil engineer and architect.
- 2) Jenney first began his formal education at the Lawrence Scientific school at Harvard in 1853.
- 3) He graduated in 1856, together with his classmate, Gustave Eiffel, the designer of the Eiffel Tower.
- 4) Jenney moved to Chicago, Illinois and began his own architectural office, which specialized in tunnels and bridges.
- 5) Jenney is best known for designing the ten-storey Home Insurance Building in Chicago.
- 6) Home Insurance Building was the second fully metal-frame skyscraper.
- 7) In his designs, he used metal columns and beams, instead of stone and brick to support the building's upper levels.

4 Finish the following sentences:

- 1) William Le Baron Jenney became known as
- 2) William Le Baron Jenney transferred to Paris to get
- 3) In 1861, he returned to the US to
- 4) Home Insurance Building in Chicago was the first
- 5) Using this method, the weight of the building
- 6) William Le Baron Jenney solved the problem of

5 Find in the text antonyms to the words:

to finish -	to enter -	to separate -	before -
to reduce -	lower -	light -	rural -

Text C Vladimir Grigoryevich Shukhov

1 Read and translate the text



Vladimir Grigoryevich Shukhov (1853—1939) was a great Russian engineer, scientist and architect renowned for his pioneering works on new methods of analysis for structural engineering that led to breakthroughs in industrial design. Besides the innovations he brought to the oil industry and the construction of numerous bridges and buildings, Shukhov was the inventor of a new family of doubly-curved structural forms. These forms based on non-Euclidean hyperbolic geometry are known today as hyperboloids of revolution. Shukhov

developed not only many varieties of light-weight hyperboloid towers and roof systems, but also the mathematics for their analysis.

V.G. Shukhov is referred as the Russian Edison. He was one of the first to develop practical calculations of stresses and deformations of beams, shells and membranes on elastic foundation. These theoretical results allowed him to design the first Russian oil tanker, new types of oil tanker barges, and oil reservoirs. The same principle of the shell on an elastic foundation allowed calculating the optimal diameter, wall thickness and fluid speed for the fluid pipelines.



V.G. Shukhov also left a lasting legacy to the Constructivist architecture of early Soviet Russia. As a leading specialist of metallic structures (hyperboloid structures, thin-shell structures, tensile structures), he may be compared with G. Eiffel. Shukhov's innovative and exquisite constructions still grace many towns across Russia.

For the 1896 All-Russia industrial and art exhibition in Nizhny Novgorod V.G. Shukhov built the steel lattice 37-meter tower which became the first hyperboloid structure in the world. The astonishing hyperboloid steel grid shell caused delight of the European specialists. After the exhibition had closed, the tower of rare beauty was bought by the well-known Maecenas of that time Yu.S. Nechayev-Maltsov and placed in his estate Polibino, Lipetsk oblast, where it has preserved until now under the state protection. In the subsequent years, Shukhov developed numerous structures of various hyperboloid steel grid shells and used them in hundreds of water towers, sea lighthouses and supports for power transmission lines. The hyperboloid structures appeared abroad only 10 years after Shukhov's invention.

Petrovsky Passage is an elite department store opened in Petrovka Street in downtown Moscow in 1906. Vladimir Shukhov designed a covered arcade with two wide three-storey galleries covered with high-pitched semi-cylindrical glass vaulting.



The second storeys of opposite galleries are connected by exquisitely designed ferroconcrete catwalks. In the 1990s, the shop was revamped as the centre of one of the most expensive shopping areas in Europe.

The Kiyevsky Rail Terminal is one of the nine rail terminals of Moscow. The station was built between 1914 and 1918 in the Byzantine Revival style.

Originally named the Bryansk Rail Terminal, it was designed by Ivan Rerberg and Vladimir Shukhov; it is considered an important landmark of architecture and engineering of the time. The station building is flanked by a gigantic landing platform which is distinguished by its simplicity and constructive boldness. The platforms are covered by massive glassed arch structures in the form of a parabola. Open-work steel trusses are clearly visible, and they demonstrate the elegance of the grandiose building.



The Shukhov radio tower, also known as the Shabolovka tower, is a broadcasting tower in Moscow designed by V. Shukhov. The 160-metre-high free-standing steel structure was built in the period of 1919 — 1922. It is a hyperboloid structure. Due to its lattice structure the steel shell of the Shukhov Tower experiences minimum wind load (the main hazard for high-rising buildings). The tower sections are single-cavity hyperboloids of rotation made of straight beams, the ends of which rest against circular foundations. The tower is located a few kilometers south of the Moscow Kremlin.



Shukhov is also reputed for his original designs of more than 180 bridges across the Volga, Yenisey, Dnieper, and other rivers.

2 *Key vocabulary /expressions*

breakthrough – прорыв;

doubly-curved structural forms – структурные формы двоякой кривизны;

to base on – основываться;

hyperboloids of revolution – гиперboloид вращения;

to be referred as – называться;

practical calculations of stresses – практический расчёт напряжений;

deformations of beams – деформация балок;

to allow – позволять;

the shell on an elastic foundation – цистерна на упругом основании;

wall thickness – толщина стен;

a lasting legacy – долговечное наследие;

exquisite – изысканный;

steel lattice – стальная решетка;
astonishing – поразительный, изумительный;
to cause delight – вызывать восторг;
under the state protection – под защитой государства;
power transmission lines – линии электропередач;
arcade – аркада, пассаж, сводчатая галерея;
high-pitched – высокий;
ferroconcrete catwalks – железобетонные подиумы;
rail terminals – железнодорожная станция;
to be flanked – примыкать, сопровождаться;
boldness – смелость, дерзость;
due to – благодаря;
wind load – ветровая нагрузка;
to rest – лежать, находиться, покоиться.

3 Answer the questions to the text:

- 1) What was Vladimir G. Shukhov?
- 2) For innovations in what spheres is he known?
- 3) What are double-curved structures based on and how are they known today?
- 4) What allowed Shukhov to design the first Russian oil tanker?
- 5) Why is Shukhov compared with G.Eiffel?
- 6) What became the first hyperboloid structure in the world?
- 7) What is the design of Petrovsky Passage?
- 8) When was Kiyevsky Rail Terminal built?
- 9) Why is it considered an important landmark of architecture and how does it look like?
- 10) What is Shabolovka tower? What is its height?

3 Read the text again and make the plan of it.

5 Write down all engineering masterpieces of Shukhov.

Text D Modern and Contemporary Masters of Architecture

1 Read and translate the texts

2 Complete the text with the architects from the box

Renzo Piano, Frank Lloyd Wright, Richard Meier, , Richard Rogers, Le Corbusier, Norman Foster, Frank Gehry



One of the most influential American architects of the first half of the 20th century was (1) _____. His works are based on the idea of organic architecture, which gives great importance to the relationship between the site, the building and the client's

requirements. The Guggenheim Museum in New York is one of his most famous works. It has a spiral form and interior looks like the inside of seashell. The artworks are viewed by walking up the walkway.

Born in Switzerland, Charles-Edouard Jeanneret, known as (2) _____ was an architect famous for his contributions to what is now called Modernism and for providing better living conditions for citizens in crowded cities. His 'Villa Savoye' (1929-1931) was the one that best summarized his five main ideas about architecture which are:

- Reinforced concrete stilts or pillars;
- A free-façade with no supporting walls;
- An open floor plan without any supporting walls;
- Long strips of horizontal ribbon windows on the second floor;
- A ramp joining the ground to the roof garden level.



(3) _____ is an American architect. His works have been particularly influenced by Le Corbusier's ideas, many of which were expanded by him.

The Jubilee Church (opened in 2003) is a church and a community centre located in the suburbs of Rome. A work of contemporary architecture, it was conceived as a centre to revitalize an isolated quarter of Rome. Meier used three large curved walls or 'shells' made of pre-cast concrete which appear like whale sails. In between these 'shells' are glass walls and skylights.



(4) _____ is one of the most significant British architects of our time and the winner of a great number of prize and awards. His ideas of prefabrication, structural simplicity and energy-efficient buildings are typical of his modernist and functionalist designs. In 1971 Rogers started a partnership with Italian architect (5) _____. In that same year, they won the design competition for the Pompidou Centre in Paris. This project made him world-famous and Roger's characteristic high-tech styling can be seen: water, heating and ventilation ducts and stairs, typical elements of the interior are exposed in a new inside-out style. The same controversial



style, taken to the ex... was used for his Lloyd's building in London, where staircases and lift towers are situated in towers and shafts on the exterior.



(6) _____ is one of the most innovative British architects of our time. Between 1968 and 1983 he had a long-lasting partnership with American architect Richard Buckminster Fuller. Their projects were mainly focused on the development of environmentally sensitive approaches to design. As their client wanted to bring back a sense of community into the workplace. Foster's innovative idea was to design open-plan office floors, roof gardens, a swimming pool and gym for the employees. He designer 30 St Mary Axe (known today as The Gherkin') that included several sustainable energy ideas. Often famous works include the Millau Viaduct in southern France which is the tallest bridge in the world, and the iconic New Webley Stadium in London.

(7) _____ is a Canadian prize-winning contemporary architect. His style is called Deconstructivism and unlike Modernism, it goes against social goals and functional necessity. Some expert have criticized his works because his buildings waste structural resources by creating functional forms and do not seem to belong in their surroundings. However, his buildings have become very famous tourists attractions and are often regarded as the most important works in contemporary architecture. His most famous works are the Guggenheim Museum in Bilbao (1997), the Walt Disney Concert Hall in Los Angeles (2003) and the Vitra Design Museum in Germany (1990).



Renzo Piano

Frank Lloyd Wright





Richard Meier

Richard Rogers



Le Corbusier



Norman Foster



Frank Genry



GRAMMAR

The Reported Speech

Различные типы предложений в косвенной речи (Reported speech. Different types of Reported speech)

Для передачи чужой речи своими словами употребляется косвенная речь. При переводе прямой речи в косвенную необходимо соблюдать определенные правила.

Рассмотрим способы передачи в косвенной речи:

1. повествовательных предложений (Reported Statements);
2. общих вопросов (Reported General Questions);
3. специальных вопросов (Reported Special Questions);
4. приказаний и просьб (Reported Commands and Requests).

Reported Statements (Повествовательные предложения)

Reported Statement чаще всего вводятся в косвенную речь глаголами to say, to tell, а также союзом **that**, который часто опускается.

E.g. He says «The play will be a success.»

- He says (that) the play will be a success.

Если после глагола to say имеется предложное дополнение, указывающее на лицо, к которому обращена речь, то он заменяется глаголом to tell.

E.g.: She has **said to me** «I am awfully tired».

- She has **told me** that she is awfully tired.

Reported General Questions (Общие вопросы)

Общий вопрос присоединяется к главному предложению с помощью союзов **if** или **whether**, которые переводятся на русский язык частицей **ли**.

E.g.: He **wants** to know if I **have been** to America.

- Он хочет знать, был ли я когда-нибудь в Америке.

(He **wanted** to know if I **had been** to America.)

John asks the secretary **whether** Mr. Brown has come back.

- Джон спрашивает секретаря, вернулся ли м-р (господин) Браун.

Примечание. При передаче в косвенной речи ответов на общие вопросы слова yes и no опускаются.

E.g.: He answered, «Yes, I can». («No, I can't».)

He answered that he could (he couldn't).

Reported Special Questions (Специальные вопросы)

При переводе специальных вопросов из прямой речи в косвенную соблюдаются те же правила, что и при переводе общих вопросов в косвенную речь. Но специальные вопросы в косвенной речи вводятся соответствующими вопросительными словами (как правило, теми словами, с которых начинается вопрос в прямой речи): who, what, when, where, why, how и др.

E.g.: He asks Jane, «Who won the competition?»

- He asks Jane (wonders) who has won the competition.

She asks me, «What time is it?»

- She wonders what time it is.

- (He **asked** Jane who **had won** the competition.

- She **wondered** what time it **was**.)

- She says, «John, when are you leaving?»

- She asks John when he is leaving.

- (She **asked** John when he **was** leaving.)

Reported Commands and Requests (Приказания и просьбы)

Приказания и просьбы в косвенной речи вводятся при помощи глаголов:

To ask ((по)просить), to tell (велеть, сказать), to order

(приказать).

После этих глаголов всегда следует косвенное дополнение, к которому относится просьба или приказание. Если предложение, вводящее прямую речь, не содержит косвенного дополнения, то вводится личное местоимение, обусловленное контекстом.

E.g.: She says, «Don't book tickets for the theatre for next Friday».

- She **asks** (asked) **me** not to book tickets for the theatre for next Friday.

Правила согласования времён в косвенной речи

Если глагол, вводящий косвенную речь, стоит в прошедшем времени, то все глаголы-сказуемые в косвенной речи «делают шаг назад во времени»

E.g.: «I am going.»

- He said **he was going**.

«Can you type?»

- She asked me **if I could type**.

- «They'll be here tomorrow.»

- She said **they would be there the next day**.

Запомните! При переводе из прямой речи в косвенную речь заменяются следующие указательные местоимения, наречия времени и места:

Direct Speech	Indirect Speech
This	That
These	Those
Now	Then, at that time
Today	That day
Yesterday	The day before
The day before yesterday	Two day before
Tomorrow	The next day, the following day
The day after tomorrow	In two day's time
Next week (month, year)	The following (the next) week (month, year)
Last week (year)	The previous (предыдущий) week (year), a year (week) before
Ago	Before, earlier
Here	There, at that place
First person (1 лицо)	Third person (3 лицо)
Second person (2 лицо)	Third or first person (3 и 1 лицо)

Сводка правил перевода предложений с модальными глаголами в косвенную речь

Can- could	«We can wait», they said. They said (that) they could wait.
May- might	«It may rain», he said. He said that it might rain.
Shall- should	«He shall do it», she said. She said he should do that.
Will-would	«I' ll wait for you at the corner.», - she said. She said she would wait for me at the corner.

Не изменяются:

- Would:** «**Would** you like some cake?», he asked.
He asked me if I **would** like some cake.
- Should:** Mother said, «You **should** take the umbrellas.»
Mother said (that) we **should** take the umbrellas.
- Ought to :** «You **ought to** be careful,» said Paul.
Paul said that I **ought to** be careful.

Exercise 1. Yesterday you met a friend of yours, Charlie. Charlie told you a lot of things. Here are some of the things he said to you:

1. I'm thinking of going to live in Canada.
2. My father is in hospital.
3. Nora and Jim are getting married next month.
4. I haven't seen Bill for a while.
5. I've been playing tennis recently.
6. Margaret has had a baby.
7. I don't know what Fred is doing.
8. I hardly ever go out these days.
9. I work 14 hours a day.
10. I'll tell Jim I saw you.
11. You can come and stay with me if you are ever in London.
12. Tom had an accident last week but he wasn't injured.
13. I saw Jack at a party a few months ago and he seemed fine.

Later that day you tell another friend what Charlie said. Use reported speech.

1. Charlie said that he was thinking of going to live in Canada.
2. Charlie said that _____

Exercise 2. In this exercise someone says something to you which is the opposite of what they said before. You have to answer I thought you said...

E.g.: 'That restaurant is expensive.' 'I thought you said it wasn't expensive.'

1. 'Ann is coming to the party.' 'I thought you said she _____,'
2. 'Bill passed his examination.' 'I thought you said _____,'
3. 'Ann likes Bill.' 'I thought _____,'

4. 'I've got many friends.' 'I thought you said you _____,'
 5. 'Jack and Jill are going to get married.' ' _____,'
 6. 'Tony works very hard.' ' _____,'
 7. 'I want to be rich and famous.' ' _____,'
 8. 'I'll be here next week.' ' _____,'
 9. 'I can afford a holiday this year.' ' _____,'
-

Exercise 3. Now you have to read a sentence and write a new sentence with the same meaning:

E.g.: 'Listen carefully', he said to us. He told us to listen carefully.

'Don't wait for me if I'm late', Ann said.

Ann said not to wait for her if she was late.

1. 'Eat more fruit and vegetables', the doctor said.

The doctor said _____

2. 'Read the instructions before you switch on the machine', he said to me.

He told _____

3. 'Shut the door but don't lock it', she said to us.

She told _____

4. 'Can you speak more slowly? I can't understand', he said to me.

He asked _____ because _____

5. 'Don't come before 6 o'clock', I said to him.

I told _____

Exercise 4. Translate these sentences:

1. Он спросил меня, где работает мой брат.
2. Я спросил секретаря, когда придёт директор.
3. Он только что спросил меня, в котором часу будет лекция.
4. Он сказал, что должен сделать это сам.
5. Я спросил его, где ближайшее почтовое отделение.
6. Доктор не велел мне выходить несколько дней.
7. Спросите его, согласится ли он помочь нам.
8. Я спросил его, когда начнутся переговоры.
9. Он спросил меня, когда открываются магазины.
10. Они сказали, что в настоящее время пароход готовят к новому рейсу.
11. Я спросил его, был ли он когда-нибудь в Средней Азии.
12. Он попросил секретаря, чтобы он принёс ему каталоги, полученные из Санкт-Петербурга.
13. Я спросил её, знает ли она профессора А. Она ответила, что знает.
14. Я спросил её, идёт ли дождь. Она ответила, что идет.

Exercise 5. Somebody says something to you which is the opposite of what they said before. Write a suitable answer beginning I thought you said:

1. A: That restaurant is expensive.
B: Is it? **I thought you said it was cheap.**
2. A: Ann is coming to the party tonight.
B: Is she? I thought you said she
3. A: Ann likes Paul.
B: Does she? I thought
4. A: I know lots of people.
B: Do you? I thought you said you
5. A: I'll be here next week.
B: Will you?
6. A: I'm going out this evening.
B: Are you?
7. A: I can speak a little French.
B: Can you?
8. A: I haven't been to the cinema for ages.
B: Haven't you?

Exercise 6. Here are some things that Ann said to you:

- I've never been to the United States.
- I can't drive.
- I'm working tomorrow evening.
- Jane is a friend of mine.
- I don't have any brothers or sisters.
- I don't like fish.
- Jane has a very well-paid job.
- Dave is lazy.

But later Ann says something different to you. What do you say?

1. Dave works very hard. **But you said he was lazy.**
2. Let's have fish for dinner.
3. I'm going to buy a car.
4. Jane is always short of money.
5. My sister lives in London.
6. I think New York is a fantastic place.
7. Let's go out tomorrow evening.
8. I've never spoken to Jane.

Exercise 7. Complete the sentences with say or tell (in the correct form).

Use only one word each time:

1. Ann **said** goodbye to me and left.
2. us about your holiday. Did you have a nice time?
3. Don't just stand there! something!
4. I wonder where Sue is. She would be here at 8 o'clock.
5. Jack me that he was fed up with his job.
6. The doctor that I should rest for at least a week.
7. Don't anybody what I It's a secret just between us.

8. „Did she you what happened?“ „No, she didn't anything to me.“
9. George couldn't help me. He me to ask Kate.
10. George couldn't help me. Heto ask Kate.

Exercise 8. The following sentences are direct speech:

- Don't wait for me if I'm late.
- Can you open your bag, please?
- Please slow down!
- Don't worry, Sue.
- Will you marry me?
- Mind your own business.
- Could you repeat what you said, please?
- Do you think you could give me a hand, Tom?
- Hurry up!

Now choose one of these to complete each sentences below. Use reported speech:

1. Bill was taking a long time to get ready, so I **told him to hurry up.**
2. Sarah was driving too fast, so I asked.....
3. Sue was very pessimistic about the situation. I told
4. I couldn't move the piano alone, so I
5. The customs officer looked at me suspiciously and ...
6. I had difficulty understanding him, so I
7. I didn't want to delay Ann, so I
8. John was very much in love with Mary, so he
9. He started asking me personal questions, so

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Содержание

1 Введение	2
2 Unit 1 Архитектура: наука или искусство.	4
Text A From the History of Building	4
Text B Architecture	7
Text C People in Architecture	10
Text D Qualities of an Architect	12
3 Grammar . Perfects	14
4 Unit 2 Древняя архитектура(Исторические стили)	22
Text A A Return to the Classics	23
Text B The Egyptian Pyramids	24
Text C Architectural Styles : Modernism	26
Text D The Middle Ages: the Gothic Period	29
5 Grammar. Passive Voice.	31
6 Unit 3 Современная архитектура	34
Text A Contemporary Architecture: Fluidity.	34
Text B Everyday Art: Architecture	37
Text C Bio-architecture	40
7 Grammar Participle I, Participle II.	42
8 Unit 4 Архитектура будущего	45
Text A Nanotechnology's for Real in the Building Industry	45
Text B Smart Buildings - the Buildings of the Future.	46
Text C 3-D Concrete Printing: the Future of Construction	50
9 Grammar. The Gerund.	51
10 Unit 5 Знаменитые архитекторы и инженеры.	57
Text A Francois Hennebique, Reinforced Concrete Pioneer.	57
Text B The Father of the American Skyscraper	60
Text C Vladimir G. Shukhov.	62
Text D Modern and Contemporary Masters of Architecture.	64
11 Grammar . The Reported Speech.	67
12 Список используемой литературы	74
13 Содержание	75

ОГАПОУ «БСК»

**Учебное пособие по английскому языку для студентов специальности
«Строительство и эксплуатация зданий и сооружений» 1 часть**

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