



---

**МИНИСТЕРСТВО ОБРАЗОВАНИЯ РЕСПУБЛИКИ БЕЛАРУСЬ**  
**Белорусский национальный технический университет**

**Кафедра «Английский язык № 1»**

**PRACTICAL ENGLISH GRAMMAR  
FOR MINING ENGINEERING  
STUDENTS**

**Пособие**

**Qo'llanma**

**Минск  
БНТУ  
2024**

МИНИСТЕРСТВО ОБРАЗОВАНИЯ РЕСПУБЛИКИ БЕЛАРУСЬ  
Белорусский национальный технический университет

---

Кафедра «Английский язык № 1»

**PRACTICAL ENGLISH GRAMMAR  
FOR MINING ENGINEERING STUDENTS**

Пособие

для студентов специальности 7-07-0714-01 «Машины и оборудование  
для горнодобывающих производств. Горная электромеханика»  
и 7-07-0724-01 «Разработка месторождений  
полезных ископаемых»

Qo'llanma

Tog'-kon sanoati kon mashinalari va uskunalari. Kon elektromexanikasi  
(7-07-0714-01), Foydali qazilmalar konlarini o'zlashtirish  
(7-07-0724-01) mutaxassisliklari talabalari uchun mo'ljallangan

*Рекомендовано учебно-методическим объединением по образованию  
в области горнодобывающей промышленности*

Минск  
БНТУ  
2024

УДК 811.111'36 (076.5)(075.8)

ББК 81.2 Англ. я 7

П69

А в т о р ы:

*Е. И. Яловик, О. А. Лапко, Ю. В. Безнис, М. Б. Ганиханова*

Р е ц е н з е н т ы:

кафедра английского языка естественных факультетов  
ФСК Белорусского государственного университета  
(зав. кафедрой, канд. филол. наук, доцент *А. Э. Черенда*);  
доцент кафедры речеведения и теории коммуникации  
УО «Минский государственный лингвистический университет»,  
канд. филол. наук, доцент *Т. А. Сысоева*

**Practical English Grammar for Mining Engineering Students** : пособие для студентов специальности 7-07-0714-01 «Машины и оборудование для горнодобывающих производств. Горная электромеханика» и 7-07-0724-01 «Разработка месторождений полезных ископаемых» / Е. И. Яловик [и др.]. – Минск : БНТУ, 2024. – 112 с.  
ISBN 978-985-31-0016-7.

Данное пособие представляет собой сборник грамматических упражнений и является дополнением к пособию *English for Mining Engineering Students* и предназначен для студентов 1 и 2 курсов факультета горного дела и инженерной экологии специальностей 7-07-0714-01 «Машины и оборудование для горнодобывающих производств. Горная электромеханика», 7-07-0724-01 «Разработка месторождений полезных ископаемых».

Цель практикума – развитие грамматических умений по основным темам, предусмотренным учебной программой, на базе профильной лексики и аутентичных текстов по специальности. Комплекс упражнений и заданий по грамматике английского языка позволяет максимально эффективно развить умения правильного оформления речи в типичных коммуникативных ситуациях профессионального общения. Пособие рассчитано на 170 часов аудиторных занятий.

УДК 811.111:62 (075.8)

ББК 81.2 Англ. я 7

Ushbu qo'llanma grammatik mashqlar to'plami bo'lib, Mining Engineering Students uchun ingliz tili qo'llanmasiga qo'shimcha bo'lib, konchilik va muhandislik ekologiyasi fakultetining 1 va 2-kurs talabalari uchun mo'ljallangan bo'lib, Tog'-kon sanoati kon mashinalari va uskunalari. Kon elektromexanikasi (7-07-0714-01), Foydali qazilmalar konlarini o'zlashtirish (7-07-0724-01).

Seminarning maqsadi – o'quv rejasida nazarda tutilgan mutaxassislik bo'yicha ixtisoslashtirilgan lug'at va autentik matnlar asosida asosiy mavzular bo'yicha grammatik ko'nikmalarni rivojlantirishdan iborat. Ingliz tili grammatikasi bo'yicha mashqlar va topshiriqlar to'plami professional muloqotning tipik kommunikativ vaziyatlarida nutqni to'g'ri loyihalash ko'nikmalarini eng samarali rivojlantirishga imkon beradi. Qo'llanma 170 soatlik auditoriya mashg'ulotlariga mo'ljallangan.

ISBN 978-985-31-0016-7

© Белорусский национальный  
технический университет, 2024

# Lesson 1

## Higher Education in Great Britain

### Имя существительное Ot so'z turkumi (The Noun)

- I. При помощи суффиксов образуйте существительные от следующих слов:

Qo'shimchalar yordamida quyidagi so'zlardan otlar hosil qiling:

1. **-ance, -ence**  
to occur, to attend, to disturb, to resist, to resemble, to guide, to exist, to enter
2. **-ity, -ty**  
productive, probable, prior, major, minor, divisible, applicable, infinite, equal, cruel, proper, conductive
3. **-ion (-sion, -tion)**  
to estimate, to act, to extract, to expand, to discuss, to reduce, to include
4. **-ment**  
to move, to fulfill, to achieve, to accomplish, to enlarge, to enjoy
5. **-ness**  
hard, complete, full, close, clever, happy, sound, bright
6. **-ship**  
friend, scholar, leader, champion, partner, member

- II. При помощи суффиксов (**-or, -er, -ant, -ist, -ian**) образуйте существительные, которые обозначают профессии или вид деятельности людей:

Quyidagi qo'shimchalar (**-or, -er, -ant, -ist, -ian**) dan foydalanib, odamlarning kasblari yoki faoliyat turini bildiruvchi otlarni hosil qiling:

to play, to write, to teach, to mine, to survey, to act, to sail, to create, to translate, to assist, to apply, to explore, to supervise, to interpret, to employ, to design, physics, chemistry, mathematics

**III. Определите морфологический состав следующих существительных:**

**Quyidagi otlarning o'zaklarini aniqlang:**

organization, requirement, glass, examination, scholarship, point, management, degree, employment, misprint, waterfall, fireman, ice-box, network, irregularities, attraction, micrometer, surveyor, framework, microwave, sandstorm, retransmitter, wavelength, landslide, usefulness

**IV. Образуйте форму множественного числа от следующих существительных:**

**Quyidagi otlarning ko'plik shaklini hosil qiling:**

value, form, example, equation, direction, theorem, curve, place, mass, method, law, area, particle, ray, degree, limit, coordinate, relationship, constant, group, test, subject, point, root, product, graphic, boundary, body, density, property, volcano, photo, hero, life, half, self, leaf, knife, roof, chief, tooth, foot, child, series, means, datum, equilibrium, maximum, stratum, abacus, calculus

**V. Распределите существительные по двум колонкам в зависимости от того, являются ли они *исчисляемыми* или *неисчисляемыми*:**

***Sanaladigan otlarni birinchi, sanalmaydigan otlarni ikkinchi ustunga ajratib quyidagi jadvalni davom ettiring:***

<i>Исчисляемое</i> <i>Sanaladigan otlar</i>	<i>Неисчисляемое</i> <i>Sanalmaydigan otlar</i>
method	liquid

law, gravitation, physics, mass, science, concentration, intellect, demonstration, course, meaning, example, root, power, research, argument, function, decomposition, respect, notebook, computer, picture, order, experiment, definition, region, consequence, distribution, contribution, cheese, difficulty, milk, water, fluid, coal, purpose, light, behavior, mathematics, advice, knowledge, expression, news, success

**VI. Переведите на русский язык:  
O'zbek tiliga tarjima qiling:**

a piece of paper, a piece of equipment, a piece of work, a piece of writing, a piece of research, a piece of information, a piece of news, a piece of advice, an article of furniture, an article of clothing, an article of food, a grain of salt, a grain of sand, a grain of truth, a lump of cheese, a lump of clay, a lump of metal, a lump of coal, a block of sugar, a block of ice, a block of stone, a block of marble, a tube of toothpaste, a slice of cheese, a slice of bread, a slice of lemon, a loaf of bread, a glass of milk, a carton of juice, a breath of air, a flash of lightning, a clap of thunder, a puff of smoke

**VII. Переведите на русский язык:  
O'zbek tiliga tarjima qiling:**

the engineers' decision, the children's book, Peter the Great's innovations, Mr. Jones's career, Plato's and Aristotle's contributions to science, the world's population, the country's natural resources, a week's holiday, two miles' distance, today's program, yesterday's report, the Sun's rays, the Moon's orbit, the Earth's attraction, the volcano's eruption, John and Helen's project, Newton's three laws of motion

**VIII. Переведите предложения на русский язык, предварительно определив синтаксическую функцию существительного:  
Gapda birinchi kelgan otning gapdagi sintaktik vazifasini aniqlagan holda jummalarni o'zbek tiliga tarjima qiling:**

1. The new student is ill.
2. Geodesy classes will start next week.
3. He is a highly qualified mining engineer.
4. His father was a miner.
5. Uranium can be produced from thorium.
6. Do you have any laboratory experience?
7. In the radio telephone sound waves are converted into radio waves.
8. Bodies are lighter in water than they are in air.

**IX. Переведите следующие атрибутивные группы на русский язык:  
Quyidagi jummalarni o'zbek tiliga tarjima qiling:**

measuring instruments, angle-measuring instruments, control system, system control, micrometer microscope, reference point, light beam, ultrahigh-frequency radio beam, oil tank, voltage transformer, boiling point, fixed point, power station, power train, gamma ray spectrum, amplitude frequency method, horse power, flash coating, flash light, data processing equipment, high aluminum cement, raw material production countries, battery-charging equipment, coal mine construction project, automobile repair plant construction project, a six-point control plan, a general purpose computer

**Артикль  
Artikllar  
(The Article)**

**I. Вставьте неопределенный артикль *a* или *an*:  
Nuqtalar o'rniga *a* yoki *an* artiklini qo'ying:**

... axis, ... horizontal axis, ... curve, ... distance, ... arrow, ... vector, ... angle, ... equation, ... square, ... hour, ... sample, ... error, ... interval, ... circle, ... point, ... trajectory, ... operation, ... unit, ... side, ... pair, ... root, ... easy explanation, ... operation, ... mathematical operation, ... obtuse angle, ... right angle, ... element, ... unique element, ... method, ... alternative method, ... example, ... given example, ... interesting example

**II. Переведите на русский язык. Объясните использование артиклей *a* / *an*, *the*:  
O'zbek tiliga tarjima qiling. *A* / *an* va *the* artikllarning qo'llanilishiga izoh bering:**

1. This is a lake. The lake is deep. It's one of the deepest lakes in the world. This is the Lake Baikal. The Baikal is the largest body of fresh water in Eurasia.

2. Did you write a plan? Give me your plan, please. The plan is very detailed.
3. The Black Sea is in the South of Russia. The Ural Mountains divide Eurasia into two parts – Europe and Asia.
4. Who is this young man? This is Nick. He works as an engineer. He is a good engineer.
5. The Petrovs are a hard-working and friendly family. They are the most famous dynasty of miners in our town.
6. Winter begins in December. The winter months are December, January and February.
7. He was the first to test this device. The device to be used is the most advanced and the most sophisticated.
8. To get higher education in Belarus you have to graduate from university. Our university is one of the largest technical universities in the country. The university is situated in the heart of Minsk. Students from our country and from abroad study at the university.

**III. В случае необходимости заполните пропуски подходящим артиклем *a / an*, или *the*:**

**Nuqtalar o'rniga *a / an* yoki *the* artikllarining mos keladiganini qo'ying:**

1. Last week I met my... friend. He was with ... young girl. ... girl was a student of our ...University.
2. She is ... teacher. She is our teacher of ... English. She is ... very good teacher. She speaks ... English fluently.
3. ... earth is our home. The earth revolves around ... sun. ... moon is a satellite of the earth. The sun rises in ... east and sets in the west.
4. Rock salt is widely used in ... food and chemical industries. ... rock salt is the main source of table salt. Rock salt is extracted by ... mining methods.
5. ... Kamchatka is famous for its geysers. ... Taimyr peninsular is a very cold place.
6. ... Neman is one of ... biggest rivers in Belarus. There are a lot of fish in ... river. In the past the Neman was a navigable ... river.
7. In ... Germany, ... coal is extracted by open-cast mining. Coal is still ... important energy source.
8. I am planning to go through ... Sahara on a motorbike.



## Местоимение Olmosh (*The Pronoun*)

### I. Вместо пропусков вставьте личные местоимения: Nuqtalar o'rniga egalik olmoshlari qo'ying:

1. A friend of mine works for a large international company. ... is an assistant manager.
2. Methane is a very dangerous gas. A high concentration of ... in the mine leads to an explosion.
3. Yesterday there was a methane release in the mine. Some workers were injured. ... are in the hospital now.
4. Last week my classmates and I were on an excursion to the mine. ... were told how potassium is extracted.
5. At the physics lecture, students received a lot of information on the topic of electricity. I think ... will be useful to them in the future.
6. I don't think this machine is worth repairing. ... is already outdated.
7. Students from our university took an active part in the scientific conference. ... presented some reports on the most important aspects in various fields of science and technology.

### II. Переделайте предложения во множественное число: Gaplarni ko'plik shakliga o'tkazing:

*Example:* This is a star. – *These are stars.*

That is a worker. – *Those are workers.*

1. This is a student.
2. This is an engineer.
3. This is a mine.
4. This is a university.
5. That is a book.
6. That is a mountain.
7. That is a device.
8. That is an instrument.
9. This is a computer.

10. This is an excavator.
11. This is a classroom.
12. That is an ecologist.
13. That is a machine tool.

**III. Заполните пропуски притяжательными местоимениями:  
Nuqtalar o'rniga mos egalik olmoshlarini qo'ying:**

1. Professor Frolov is known all over the world. I am familiar with ... scientific publications.
2. In June, the second-year students had an industrial practice in the mine. They are expected to present ... practice reports by the end of July.
3. He is the best worker of our plant. This is ... photo in the newspaper.
4. My friend's name is Kate. ... parents are miners.
5. Last year, Peter and Alex entered Oxford University. They're ... friends. We've been friends for six months.
6. Mary and Anna are fifth-year students. ... term papers were highly appreciated by the supervisor.
7. Students of ... university regularly participate in scientific conferences. ... research articles are regularly published in scientific journals.
8. ... classmate is going to study in Moscow. She's leaving tomorrow. This is ... plane ticket.

**IV. Переведите притяжательное местоимение свой в следующих предложениях:**

**Quyidagi gaplardagi egalik olmoshlarini tarjima qiling:**

1. I showed the teacher ... (*свой*) (*o'zinning*) (*uning*) drawing.
2. Mary gave me ... (*свой*) (*o'zining*) (*uning*) invitation ticket to the concert.
3. The students passed ... (*свои*) (*o'zilarining*) (*ularning*) tests for checking.
4. Nick sent ... (*свое*) (*o'zining*) (*sizning*) resume to a number of employment agencies.

5. Show me ... (*свое*) (*o'zingizning*) (*sizning*) solution to this problem.
6. We have revised ... (*свои*) (*o'zimizning*) (*ularning*) conclusions and come to the following decision.
7. After the redesign, the room has completely changed ... (*свои*) (*o'zining*) (*uning*) interior and has become much more cozy.

**V. Вместо пропусков вставьте *some, any, no* или их производные:  
Nuqtalar o'rniga *some, any* yoki *no* so'zlarini qo'yib gaplarni tugating:**

1. You don't have to give me ... money. During the holidays I am going to work in the factory and earn ... money myself.
2. Our teacher of English didn't give us ... homework yesterday.
3. You look very tired. You can rest for ... time before the conference starts.
4. I have ... questions about the content of your term paper, but I do have ... questions about its structure.
5. Have you borrowed ... textbooks on economics from the library? – No, I haven't borrowed ... textbooks on economics. But I took ... English textbooks.
6. Excuse me, I need ... information about the flight to London.
7. In this difficult situation, we will be glad to get ... help.
8. Mr. Smith has ... questions that he wants to ask you.
9. ... knows what will happen to him tomorrow, that is why you have to enjoy every day of your life.
10. Do you have ... difficulties with this drawing. – I don't have ... difficulties, I have already drawn everything.
11. Petrov left the classroom without saying ... to ... .
12. ... conditions must be met for the accuracy of the experiment.
13. Have you got ... time to spare? I'd like to ask you ... questions.
14. I can't finish writing my essay. There is ... ink in my pen.
15. The question was so difficult that ... could answer it.
16. Can you add ... cement to this mixture?

**VI. Вставьте вместо пропусков *few* или *a few*:  
Nuqtalar o'rniga *few* yoki *a few* so'zlaridan birini qo'yib yozing:**

1. Susan has ... friends. She doesn't feel lonely.
2. You have ... mistakes in the test. Correct them!

3. It was not a secret, ... people knew about it.
4. It was a secret, very ... people knew about it.
5. I really need to see him. I've got ... questions to ask him.
6. There are ... days left to hand in the reports.

**VII. Вставъте вместо пропусков *little* или *a little*:**

**Nuqtalar o'rniga *little* yoki *a little* so'zlaridan birini qo'yib yozing:**

1. The bottle was not empty. ... water was left.
2. There is still ... work to do.
3. She has ... free time and can have a rest.
4. She has ... free time. She is always very busy.
5. He earns ... money and cannot afford an expensive car.
6. Mary earned ... money and was able to help her parents.

**VIII. Вместо пропусков вставъте *many* / *much* / *a lot of*; *few* / *little*; *a few* / *a little*:**

**Nuqtalar o'rniga *many* / *much* / *a lot of*; *few* / *little*, *a few* / *a little* so'zlaridan mosini qo'yib qo'ying:**

1. Alex earned ... money and was able to buy himself a new phone.
2. He earned ... money and could not live in a big city.
3. Too ... students are absent because of illness.
4. The teacher gives us ... time to prepare before a test.
5. We need ... boxes to put all these tools in.
6. There are only ... days left to hand in the reports.
7. I don't know how ... time I have to spend in the lab to complete the experiment.
8. I just have ... friends, but we're really close.
9. How ... money have you got? How ... dollars have you spent?
10. There were too ... students at the conference.
11. He had very ... information on the subject and could add nothing.
12. He had ... information on the subject and could add some details.
13. There are ... shops near the university. Go and buy ... bread and milk.

14. How ... people are there in your office? – At the moment there are ... employees in the office.
15. John will have ... exams next year. He has to study ... information.
16. Did ... students fail the examination? ... students failed the exam.

**IX. Прочитайте письмо и выберите правильный вариант:  
Xatni o'qing va to'g'ri keladigan so'zlardan birini tanlang:**

Dear Helen,

Thanks *a lot / much* for your letter. I'm glad you had a good time in summer. I enjoyed myself in summer too. I spent two weeks with my parents in Italy and in August I entered the technical university. So, I have *a little / a few* things to tell you about my studies at the university. There are *many / much* students in my faculty and I have very *much / a lot of* friends. This year we study *a lot of / much* new subjects. They are interesting, though quite difficult. I haven't got very *much / many* free time because I have *a lot of / much* hobbies. Please write to me soon and tell me *a little / a few* about your studies.

Best wishes,  
Ann

**X. Переведите предложения на русский язык, обращая внимание на синтаксическую функцию местоимения *it* в предложении:  
Gaplardagi *it* olmoshining sintaktik vazifasiga e'tibor bergan holda jummalarni o'zbek tiliga tarjima qiling:**

1. This is my new car. But my wife doesn't like it.
2. What kind of fuel is coal? – It is a solid fuel. It is not mined in our country.
3. What time is it? – It's 15 minutes past ten. It's time to start the conference.
4. What day is it today? – It's the 20th of October. Today is the anniversary of the foundation of our university.
5. We find it necessary to repeat the experiment.
6. We believe it possible to take part in this discussion.
7. It's dangerous to drive fast you can get into an accident.

8. It takes me fifteen minutes to get to the university.
9. He looks very tired. It seems he is working hard on the course-work.
10. It would be worth visiting the mine for students of our faculty to see how potassium is extracted.
11. It took me ten minutes to explain her the meaning of this word.
12. It is Petrov whom I want to send to the library. He knows which dictionary to take.
13. It was this formula that had to be applied when solving this task.

**XI. Переведите предложения. Обратите внимание на перевод местоимения *that / those* в зависимости от его функции в предложении: Gaplarni tarjima qiling. *That / those* olmoshlarining gapdagi vazifasiga qarab tarjimasiga e'tibor bering:**

1. *That* university was founded in the early 18th century.
2. Can you repeat all *those* examples which he gave at the last lecture?
3. He's a good student. *That* is clear to me.
4. All the guys know *that* he is a real friend.
5. The girl *that* is reading the timetable is our student.
6. You must know the abbreviations *that* are used in technical articles.
7. He said *that* he would finish his experiments in a month.
8. *That* he declined to take part in our conference surprised everybody.
9. The fact is *that* I can't find this book anywhere.
10. He published the results of his experiment in order *that* everyone might use them.
11. She spoke so fast *that* it was difficult to follow her.
12. Now, *that* he has finished his experiments, he can publish the results.
13. It was in the field of radio-waves and electronics *that* the development of physics ran parallel with *that* of industry.
14. The efficiency of the new engine is much higher than *that* of the old one.
15. We have received some new lathes similar to *those* installed in your laboratory.

**XII. Определите функцию местоимения *one / ones* и переведите предложения на русский язык:**

***One / ones* olmoshlarining xususiyatlarini aniqlang va matnni o'zbek tiliga tarjima qiling:**

1. When preparing for the examination, *one* should take into consideration the teacher's advice.
2. This book is more interesting than the *one* we read last week.
3. – I don't like this book. Give me another *one*.  
– Here are two books. Which *one* would you like?
4. These toolboxes are too small. We need some bigger *ones*.
5. *One* should be careful when carrying out experiments with acid.
6. This student's thesis is better than that *one*.
7. January is the first month of the year, and December is the last *one*.
8. There are many advantages of using this method, the main *ones* are its cost and efficiency.
9. *One* may expect that this substance dissolves easily in water.
10. The problem of environmental pollution is the most important *one* at this conference. In many cases it has become a dominant *one* in relation to many others.
11. *One* must know all the properties of this substance.
12. They study organic processes and inorganic *ones*.

**XIII. Выберите правильный вариант. Обратите внимание на перевод местоимений *both / either / neither* и союзных слов *neither...nor / either...or / both...and*:**

**Berilgan so'zlardan mosini tanlab nuqtalar o'rnini to'ldiring. *both / either / neither* olmoshlari va *neither...nor / either...or / both...and* bog'lovchilarining tarjimasiga e'tabor qiling:**

1. He gave me two magazines yesterday and I have read (*both / neither*).
2. Mike and John are good students. (*Both / Neither*) of them passed the test.
3. We have asked them both but (*neither / both*) of them knows his address.
4. The students gave two answers to this question. (*Either / Neither*) answer was correct.

5. (*Both / Neither*) this book (*and / nor*) these articles have already been translated into English.
6. She is very slim. I think she is (*either / neither*) a sportsman (*or / nor*) a model.
7. They (*both / neither*) graduated from the University last year.
8. (*Either / Neither*) Nick (*or / nor*) Peter could do this exercise.
9. Ann never works all day. She works (*either / neither*) in the morning (*or / nor*) after lunch.
10. John is interested in (*both / neither*) geography (*and / nor*) geology.
11. (*Either / Neither*) of them invited me to the conference, so I didn't go there.
12. I asked two friends to help me with the test, but (*either / neither*) of them knew the answer.
13. We can meet (*either / neither*) today (*or / nor*) tomorrow. I am terribly busy.
14. (*Both / Neither*) the students (*and / nor*) the teacher always speak English in class.



## Lesson 2

### Higher Engineering Education in Belarus

#### Глагол *to be*. Формы и функции *To be* fe'li. Uning vazifalari va qo'llanilishi (*The verb to be*)

- I. Выберите правильную форму глагола *to be*:  
*To be* fe'lining to'g'ri qo'llanilgan shaklini tanlang:
1. BNUT (*is / are*) one of the largest higher educational institutions in Belarus.
  2. There (*is / are*) many higher educational institutions in Belarus.
  3. All students at a university (*is / are*) provided with halls of residence.
  4. The students (*is / are*) carrying out an experiment in the lab now.
  5. Great success (*was / were*) achieved in the field of mineral exploration last year.
  6. The results of the experiment (*was / were*) presented at the conference two days ago.
  7. This drilling rig (*was / were*) introduced into production last year.
- II. Переведите следующие предложения на русский язык. Объясните функции глагола *to be*:  
Quyidagi gaplarni o'zbek tiliga tarjima qiling. *To be* fe'lining vazifalarini tushuntiring:
1. Secondary education is compulsory in Belarus.
  2. Engineering and technology education is offered on full-time and part-time basis.
  3. Laboratory work is an important part in training mining specialists at BNUT.
  4. Research is constantly being carried out in the field of mining and quarrying.
  5. The academic year at universities in Belarus is divided into two terms.

6. All university students are to pass exams at the end of the term.
7. The results of the experiment are of great interest to the scientists.

**Глагол *to have*. Формы и функции**  
***To have* fe'lining shakli va qo'llanilishi**  
**(*The verb to have*)**

**I. Выберите правильную форму глагола *to have*:**

***To have* fe'lining to'g'ri qo'llanilgan shaklini tanlang:**

1. Engineering students (*have / has*) the opportunity to take part in scientific conferences.
2. He (*have / has*) a lot of miner friends.
3. They (*have / has*) to undergo practical training at mine.
4. The university (*have / has*) its own scientific research laboratory.
5. Students (*have / has*) to pass tests and examinations at the end of the term.
6. This student (*has / had*) a very interesting presentation at the conference yesterday.
7. She (*has / had*) to spend a lot of time in the lab.

**II. Переведите следующие предложения на русский язык. Объясните функции глагола *to have*:**

**Quyidagi gaplarni o'zbek tiliga tarjima qiling. *To have* fe'lining vazifalarini tushuntiring:**

1. Applicants have to pass maths and physics to enter a technical university.
2. Some students in our country have to pay for their studies.
3. Each university in Belarus has its own hostels where students can live during their course of study.
4. Peter had already graduated from university and applied for a job with an oil company.
5. Our country does not have many mineral deposits.
6. At the mining department, he has studied geology for two years.
7. Last year students had the opportunity to take part in the scientific conference.

## **Глагол *to do*. Формы и функции** ***To do* fe'lining shakli va qo'llanilishi** ***(The Verb to do)***

- I. Переведите следующие предложения на русский язык. Объясните функции глагола *to do*:  
**Quyidagi gaplarni o'zbek tiliga tarjima qiling. *To do* fe'lining vazifalarini tushuntiring:**

1. Not all applicants in Belarus become budget students, do they?
2. The university administration does everything possible to attract foreign students.
3. Higher education in Belarus does not only mean lectures, seminars and exams.
4. Higher education does help graduates to get well-paid jobs.
5. Full-time students with positive grades receive a monthly scholarship, don't they?
6. The need for highly qualified specialists in the national economy does increase every year.
7. The university teaching staff take part in scientific conferences every year and so do the students.

## **Основные формы глагола** **Личные и неличные формы глагола** **Fe'lining asosiy shakllari** **Fe'lining aniq va noaniq shakllari** ***(Verb Forms. Finite and Non-Finite Forms)***

- I. Назовите основные формы следующих глаголов:  
**Quyidagi fe'llarning asosiy shakllarini bering:**

to provide, to enter, to finish, to study, to begin, to write, to receive, to get, to make, to know, to teach, to pass, to become

- II. Перечислите: а) *первые формы*; б) *вторые формы*; в) *третьи формы* следующих глаголов:

Quyidagi fe'llarning: а) *birinchi shakli*; б) *ikkinchi shakli*; в) *uchinchi shakllarini* aytib bering:

break, dug, froze, shook, burn, taken, put, sink, burnt, shaken, broke, sunk, split, shake, grind, driven, broken, dig, took, freeze, ground, take, drove, frozen, sank, drive

- III. Назовите словарные (первые) формы следующих глаголов: Quyidagi fe'llarning lug'at (*birinchi*) shaklini ayting:

grinding, finished, gave, using, approved, cut, gave, training, offered, divided, built, dug, reading, received, found, got, split

- IV. Определите личные и неличные формы глагола: Fe'llarning shaxsli va shaxssiz shaklini aniqlang:

to receive, receives, to be received, received, is received, to have received, had received, is receiving, to be receiving, to have been receiving, has received, receiving, being received, having been received, was received, has been received

## **Структура повествовательного предложения** **Darak gaplarning tuzilishi** **(Declarative Sentences)**

- I. Проанализируйте следующие простые повествовательные предложения. Укажите признак(и) нахождения сказуемого. Переведите предложения на русский язык:

Quyidagi darak gaplarni tahlil qiling. Fe'l-kesimni topish belgis(lar)ini ko'rsating. Jummalarni o'zbek tiliga tarjima qiling:

1. Higher engineering education in Belarus is provided by a number of universities.
2. At Belarusian universities students can study for free.
3. In Belarus engineering and technology education is offered on full-time and part-time bases.

4. At universities the teaching process consists of practical and lecture courses.
5. Foreign students can also enter Belarusian higher educational institutions.
6. He has studied English at university for two years.
7. In mining departments at universities students usually study geology, surveying, geodesy and mining engineering.

**II. Восстановите структуру предложений:  
Gaplarni to'g'ri tuzing:**

1. the, world, Belarusian, recognized, universities, are, all, over.
2. country, get, every, in, our, can, free, citizen, education.
3. usually, and, the, students, practical, attend, lectures, classes.
4. have, students, different, training, at, enterprises, practical.
5. sport, become, an, has, essential, of, students', part, lives.
6. graduates, receive, a, university, of, bachelor, diploma, of, science.
7. university, can, fields, work, graduates, science, in, various, of, and, technology.

**III. Переведите следующие предложения на английский язык:  
Quyidagi gaplarni ingliz tiliga tarjima qiling:**

1. Стать студентом не так-то просто.
  2. Учиться на бюджетной основе могут только самые лучшие абитуриенты.
  3. Очная форма обучения является наиболее распространенной и востребованной.
  4. После окончания университета молодые специалисты имеют возможность поступать в магистратуру.
  5. Высшее образование в нашей стране доступно всем желающим.
1. Talaba bo'lish oson emas.
  2. Faqat eng yaxshi abituriyentlar byudjet asosida o'qishlari mumkin.
  3. Kunduzgi ta'lim eng keng tarqalgan va talabga ega bo'lgan o'quv shakli.
  4. Yosh mutaxassislar universitetni tamomlagach, magistraturaga o'qishga kirish imkoniyatiga ega bo'ladilar.
  5. Mamlakatimizda oliy ta'lim hamma uchun mavjud.

## Структура вопросительного предложения So'roq gaplarning tuzilishi (*Interrogative Sentences*)

### I. Задайте вопросы к следующим предложениям:

Quyidagi gaplarga savol bering qo'ying:

1. Higher education is available for everyone in our country. (*общий / umumiy savol*)
2. Foreign students can enter Belarusian higher educational institutions. (*к подлежащему / egaga savol*)
3. The academic year is divided into two terms at Belarusian universities. (*альтернативный / tanlov savol*)
4. One of the necessary qualifications for higher school is a complete secondary education. (*специальный / maxsus savol*)
5. Knowledge, science and culture open the prospects for the future. (*разделительный / tasdiqlovchi savol*)
6. Engineering and technology education is offered on full-time and part-time basis. (*альтернативный / tanlov savol*)
7. Graduates of universities start working in different branches of science, economy and production. (*специальный / maxsus savol*)

### II. Составьте вопросы, ответами на которые будут являться следующие предложения:

Quyidagi javoblarga mos keluvchi so'roq gaplar tuzing:

1. Yes, they did. (*The students attended lectures in geology last term.*)
2. No, it does not. (*The teaching process consists of practical and lecture courses.*)
3. Yes, it has. (*Sport has become an essential part of students' life.*)
4. No, there are not. (*There are not many higher educational institutions in Belarus where students can get mining education.*)
5. Yes, it does. (*The higher school gives knowledge to the students and develops their abilities to think and to work productively.*)

**III. Дополните разделительные вопросы:**

**Tasdiqlovchi so'roq gapni to'ldiring:**

1. Laboratory work is an important part in training mining specialists, ...?
2. The scientists carried out research in the fields of mining and geology, ...?
3. Petrov was not able to attend the scientific conference last year, ...?
4. Every year thousands of graduates get diplomas of higher education, ...?
5. He did not receive a scholarship last month, ...?
6. Becoming a budget student in Belarus is not an easy thing to do, ...?
7. Only the best university students, of course, take part in scientific conferences, ...?

**IV. Поставьте по пять типов вопросов к каждому предложению:**

**Har bir gapga besh turdagi savollar tuzing:**

1. Students must attend lectures and practical classes every day.
2. Students can get practical knowledge at mines, plants and other industrial enterprises.
3. After graduation all students are provided with the first workplaces.

**Конструкция *there is / are*  
*There is / are* konstruksiyasi  
(*There is / are Structure*)**

**I. Выберите правильную форму глагола:**

**Fe'lining to'g'ri shaklini tanlang:**

1. There (*is / are*) many international students at our university.
2. There (*is / are*) three departments in the Faculty of Mining Engineering.
3. There (*was / were*) a lot of students at the lecture in geology yesterday.

4. There (*is / are*) a large library and several reading rooms at our university.
5. There (*was / were*) only ten students at the laboratory class.
6. There (*is / are*) Belarusian Academy of Sciences near the university.
7. There (*is / are*) thousands of books and magazines in the university library.

**II. Поставьте следующие предложения в вопросительную и отрицательную форму:**

**Quyidagi gaplarni so'roq va inkor shakllarga aylantiring:**

1. There was a tutor and two students in the lab.
2. There are many flowers in the university campus every spring.
3. There were some students in the reading room.
4. There is a large stadium and several sports grounds close to the university.
5. There were a few excellent students in our group.
6. There is a museum at our university.
7. Last year there were 20 international students in our department.

**III. Переведите следующие предложения на русский язык:**

**Quyidagi gaplarni o'zbek tiliga tarjima qiling:**

1. There are two very difficult exercises in the students' book.
2. There were two speakers from our group in the list of conference participants.
3. There are a number of technical universities and colleges in Belarus where students can gain technical skills.
4. In winter, sometimes there is much snow in Belarus and students help to clean it up.
5. There are many faculties at our university where students can get theoretical and practical skills.
6. There is a broad network of educational establishments in the system of higher education of Belarus.



# Lesson 3

## Earth's Structure

### Предлог Predlog (*The Preposition*)

- I. Вместо пропусков вставьте соответствующие предлоги. Переведите предложения на русский язык:  
Bo'sh joylarni mos predloglar bilan to'ldiring. Gaplarni o'zbek tiliga tarjima qiling:

a) предлоги места: *in, between, below, on, close to, at, around*  
joyni ifodalovchi predloglar: *in, between, below, on, close to, at, around*

1. Earth is a planet \_\_\_ which many species of plants and animals live.
2. There are large quantities of natural resources \_\_\_ the interior of the earth.
3. The mantle lies \_\_\_ the crust and consists of hot, dense, hard rock.
4. The asthenosphere is \_\_\_ the upper mantle of the earth.
5. The boundary \_\_\_ the inner and outer core is approximately as hot as the surface of the sun.
6. In the solar system, all the planets revolve \_\_\_ the sun.
7. Sedimentary rocks occur \_\_\_ the earth's surface.
8. Salt mining waste is stored \_\_\_ the mining site.

b) предлоги движения: *to, down, over, away from, out of, towards, into*  
harakatni ifodalovchi predloglar: *to, down, over, away from, out of, towards, into*

1. In the ocean, the remains of plants and animals fall \_\_\_ to the seabed.
2. From the crater of the volcano, the red-hot rock comes \_\_\_ the surface of the earth in the form of lava.

3. During volcanic eruptions, steam, ash and a huge amount of gases are released \_\_\_ the atmosphere.
4. The clouds of ash and dust that formed during the eruption of the volcano are carried by the wind \_\_\_ long distances.
5. Mineral waste is transported \_\_\_ the mine and dumped on heaps.
6. Lava that rises \_\_\_ the earth's surface sometimes only lifts layers of sedimentary rocks and solidifies in the form of a compact body (laccolith).
7. Tectonic plates sometimes move \_\_\_ each other and collide to form mountains.
8. Where tectonic plates move \_\_\_ each other, cracks and fissures appear in the earth.

с) предлоги времени: *since, for, during, through, ago, within, after, in*

vaqtini ifodalovchi predloglar: *since, for, during, through, ago, within, after, in*

1. \_\_\_ many millions of years, tectonic plates have been moving, changing the relief of the earth's surface.
2. Various natural disasters can occur \_\_\_ a volcanic eruption.
3. \_\_\_ life appeared on the earth, the relief of the earth's surface has changed a lot.
4. The earth's surface has been changing and transforming \_\_\_ many millions of years.
5. \_\_\_ ancient times, people believed that the earth was flat.
6. A lot of stars are forming \_\_\_ the galaxy.
7. \_\_\_ the flood, some houses in our village were destroyed.
8. Vesuvius last erupted 79 years \_\_\_ in 1944.

II. Переведите предложения на русский язык. Обратите внимание на перевод выделенных предлогов:

Gaplarni o'zbek tiliga tarjima qiling. Ajratib ko'rsatilgan predloglarning tarjimasiga e'tibor bering:

1. *Due to* the volcanic eruption, there was severe flooding.
2. Many scientists state that climate change on the earth occurs *because of* harmful human activity.

3. *Thanks to* the research of many scientists, we know a number of interesting facts about the structure of the earth.
4. The tsunami was caused *because of* a volcanic eruption on the seabed.
5. *In accordance with* the latest data of scientists, the water level of the World ocean is constantly rising.
6. Workers cannot go down into the mine *because of* the release of methane.
7. We were all *outside* the house when the earthquake happened. During the earthquake, all the furniture *inside* the house was shaking too.
8. The whole brigade of miners, with the exception of two workers, went *down into* the mine.
9. Steep cliffs stretch *along* the whole coastline.
10. During a trip to Austria, a bus with tourists drove *through* a tunnel in the Alps.

III. Переведите на русский язык слова, образованные с помощью отрицательных префиксов *un-, in-, dis-, non-, im-*:  
 Inkor ma'noni beruvchi prefikslardan foydalanib qarama qarshi ma'noli so'zlar yasang. *un-, in-, dis-, non-, im-* prefiksli so'zlarni o'zbek tiliga tarjima qiling:

1) known	<i>известный</i> <i>taniqli</i>	unknown
2) happy	<i>счастливый</i> <i>baxtli</i>	unhappy
3) official	<i>официальный</i> <i>rastmiy</i>	unofficial
4) popular	<i>популярный</i> <i>mash'hur</i>	unpopular
5) complete	<i>полный</i> <i>to'liq</i>	incomplete
6) direct	<i>прямой</i> <i>to'g'ri</i>	indirect
7) legal	<i>законный</i> <i>qonuniy</i>	illegal

8)	logical	<i>логичный</i> <i> mantiqiy</i>	illogical
9)	regular	<i>регулярный</i> <i> muntazam; to 'g'ri</i>	irregular
10)	reversible	<i>обратимый</i> <i> qaytariladigan;</i> <i> ikki tomonlata</i>	irreversible
11)	possible	<i>возможный</i> <i> mumkin</i>	impossible
12)	to like	<i>любить</i> <i> yoqtirmoq</i>	to dislike
13)	to charge	<i>заряжать</i> <i> quvvatlatmoq</i>	to discharge
14)	to connect	<i>соединять</i> <i> bog'latmoq</i>	to disconnect
15)	to mount	<i>монтировать</i> <i> o'rnatmoq</i>	to dismount
16)	to assemble	<i>собирать</i> <i> jamlatmoq</i>	to disassemble
17)	proportional	<i>пропорциональный</i> <i> proporsional</i>	disproportional
18)	ferrous	<i>цветной</i> <i>(о металле)</i> <i> rangli (metal)</i>	non-ferrous
19)	professional	<i>профессиональный</i> <i> professional</i>	non-professional
20)	recoverable	<i>восстанавливаемые</i> <i> qayta tiklanadigan</i>	non-recoverable

**IV. Назовите префиксы и начальные формы слов, от которых были образованы следующие производные:**

**Quyidagi yasama so'zlarning old qo'shimchalari va boshlang'ich shakllarini ayting:**

to resell, to rebuild, to recycle, to reproduce, to misunderstand, to misinform, to overpay, to underpay, to overestimate, to underestimate, pre-historic, pre-glacial, post-war, antivirus, antifriction,

intergranular, international, interdependent, overpopulated, overweight, ultra-short, ultraviolet

- V. От слов, указанных в скобках, образуйте новые при помощи префикса *un-*. Переведите предложения на русский язык:  
Qavs ichidagi so'zlardan *un-* prefiksi bilan yangi so'zlar yasang. Gaplarni o'zbek tiliga tarjima qiling:

1. The results of the laboratory tests were ... (*satisfactory*).
2. Peat is an ... (*consolidated*) sedimentary rock.
3. Peat consists of loose, ... (*cemented*) remains of plants and animals.
4. During exploration work under a layer of volcanic ash, scientists discovered ... (*usual*) formations.
5. As the experiment was ... (*successful*), there was no need to publish its results.
6. It was ... (*necessary*) to climb the mountains in such bad weather.
7. During archaeological excavations, scientists have found perfectly ... (*deformed*) jewellery of ancient people.
8. The worker was ... (*able*) to go down the mine due to illness.

**Простое (неопределенное) время**  
**Oddiy (noaniq) vaqt**  
**(Simple (Indefinite) Tenses**  
**Active Voice)**

- I. Поставьте глаголы *to be* и *to have* в соответствующую форму **Present Simple Active**:  
*To be* va *to have* fe'llarini **Present Simple Active** ning mos shakliga qo'ying:
1. Earth ... (*to be*) a planet of the Solar system on which there is life.
  2. Each layer of the earth ... (*to have*) a unique chemical composition.
  3. The continental crust ... (*to be*) thick and has relatively low density.
  4. The Mohorowitsch boundary ... (*to have*) a sharp increase in seismic velocity.

5. The four main components of the earth's structure ... (*to be*) the crust, the mantle, the outer core, and the inner core.
6. The earth's core ... (*to be*) the very hot and the very dense center of our planet.
7. Oceanic and continental crust ... (*to have*) different chemical and physical properties.
8. The asthenosphere ... (*to have*) a part of the upper mantle.
9. Weather conditions and temperature changes ... (*to have*) a destructive effect on the rocks of the earth's crust.
10. There ... (*to be*) two very different types of the earth's crust: oceanic and continental.

**II. Поставьте глагол в скобках в соответствующую форму Present Simple Tense:**

**Qavsdagi fe'llarni Present Simple Tense ning mos shakliga qo'ying:**

1. Heat and pressure ... (*to convert*) igneous and sedimentary rocks to metamorphic rock.
2. Geologists often ... (*to refer to*) the rocks of the oceanic crust as sima.
3. The science of petrography ... (*to study*) the rocks of the earth's crust.
4. The structure of igneous rocks ... (*to depend on*) the composition of the magma and the conditions of its solidification.
5. The thickness of the earth's crust ... (*to vary*) from 5 to 70 km deep from the surface.
6. Scientists ... (*to distinguish*) three shells in the internal structure of the earth: the crust, the mantle and the core.
7. The earth's magnetic field ... (*to save*) our planet from harmful cosmic rays.
8. The temperature of the mantle ... (*to increase*) with depth.

**III. Задайте общий вопрос к следующим предложениям:**

**Quyidagi gaplarga umumiy savol bering:**

1. The earth's crust is hard and the thinnest outer shell of Earth.
2. The top part of the earth has a solid shell called the lithosphere.

3. The structure of rocks shows the conditions under which they were formed.
4. Living organisms play an important role in the life processes of the earth.
5. The organisms that make up the biosphere have an amazing ability to reproduce and spread around the planet.
6. The average age of the oceanic crust is 100 million years.

**IV. Образуйте формы *Past Simple* от следующих глаголов:  
Qaydagi fe'llardan *Past Simple* shakllarini hosil qiling:**

to show, to form, to save, to convert, to bend, to break, to compose, to cover, to cleave, to cut, to dig, to erupt, to create, to drive, to fall, to sink, to fill, to freeze, to grow, to extend, to conduct, to lie, to rise, to split, to shake, to involve, to move, to divide, to transform, to recycle, to accumulate, to subject

**V. Поставьте глаголы в скобках в форму *Past Simple Active*:  
Qavsdagi fe'llarni *Past Simple Active* shaklida yozing:**

1. Millions of years ago, the earth ... (*to remain*) uninhabited.
2. Living organisms ... (*to appear*) on the earth about 3–4 billion years ago.
3. In ancient times, people ... (*to think*) about the origin of the world in which they (*to live*).
4. In ancient times, people ... (*to believe*) that the gray spots on the moon were seas.
5. The first continental structures ... (*to appear*) about 3 billion years ago.
6. Exploration for new mineral resources ... (*to begin*) with the first use of metal (*copper and gold*) about 7000 years ago.
7. Most of the first prospectors ... (*to rely*) mainly on luck when discovering deposits.
8. In the last century we ... (*to drain*) thousands of square kilometers of wetlands and ... (*to disrupt*) the ecological balance.

**VI. Образуйте форму *Future Simple* от следующих глаголов:  
Quyidagi fe'llardan *Future Simple* shakllarini hosil qiling:**

to dissolve, to break down, to transport, to weather, to expose, to decompose, to erupt, to change, to produce, to collect, to bury, to crack, to accumulate, to convert, to bend, to extend, to conduct, to move, to divide, to transform, to resist, to explore, to contribute

**VII. Поставьте глаголы в скобках в форму *Future Simple Active*:  
Qavsdagi fe'llarni *Future Simple Active* shaklida yozing:**

1. Perhaps in the nearest future people ... (*to start*) searching for minerals on other planets of the solar system.
2. The development of this deposit ... (*to require*) a huge capital investment.
3. Next week, workers ... (*to install*) the equipment necessary for ore extraction.
4. Basalt ... (*to be*) in demand by the enterprises of our country in the nearest future.
5. Geologists ... (*to discover*) and ... (*to develop*) those types of mineral raw materials that are in demand in the economy today.
6. The management ... (*to carry out*) work to attract foreign investment in the development of this deposit.
7. For the search and exploration of new mineral deposits, scientists ... (*to introduce*) the most modern equipment.
8. It is possible that in the next 30–50 years, due to the increase of industrial production, all countries ... (*to extract*) more minerals from the depths.

**VIII. Преобразуйте предложения в отрицательную форму. Также к каждому предложению задайте по пять типов вопросов и дайте краткий ответ на общий вопрос:**

**Gaplarni inkor shaklga o'zgartiring. Har bir gap uchun besh turdagi savol bering. Umumiy savolga qisqacha javob bering:**

1. Graduates of our faculty occupy responsible positions in the mining industry.



2. Our country will apply the most modern technique of prospecting for new natural deposits.
3. In the last century, prospectors looked for visible signs of mineralization on the surface of the earth.

**IX. Поставьте глаголы в скобках в соответствующую временную форму (*Present, Past, Future Simple Active*):**

**Qavs ichidagi fe'llarni tegishli zamonga qo'ying (*Present, Past, Future Simple Active*):**

1. Last year, coal output in the mine ... (*to exceed*) coal output this year.
2. The deepest geological and exploration wells ... (*to reach*) up to 9000 m.
3. I think that the methods and techniques of exploration and extraction of minerals ... (*to change*) in the future.
4. The thickness of sedimentary layers ... (*to be*) approximately 15 km.
5. The surface of the moon ... (*to reflect*) the sun's rays, so it ... (*to shine*) at night.
6. Expanding our knowledge and capabilities in the field of technology, especially robotics, ... (*to help*) us to explore mineral deposits in space more effectively.
7. In 2015, the United States ... (*to allow*) the search for minerals on the Moon.
8. Earth ... (*to make*) a complete revolution around its axis every 24 hours, this is how day and night change.
9. Oceans ... (*to surround*) all the continents and islands on the earth.
10. Weathering ... (*to facilitate*) the destruction or dissolution of rocks and minerals on the earth's surface.
11. At the beginning of the last century, prospectors ... (*to rely on*) direct observation of mineralization on the earth's surface to search for valuable minerals.
12. Scientists believe that dreams of mining in space soon ... (*to become*) a reality.

**Продолженное время**  
**Uzoq vaqt**  
**(Continuous (Progressive) Tenses**  
**Active Voice)**

- I. **Образуйте формы *Present Continuous* от следующих глаголов:**  
**Quyidagi fe'llardan *Present Continuous* shakllarini hosil qiling:**

to dissolve, to break down, to transport, to weather, to expose, to decompose, to change, to collect, to bury, to crack, to extend, to conduct, to transform, to resist, to explore, to contribute, to show, to save, to convert, to bend, to compose, to cover, to cleave, to cut, to dig, to erupt, to create, to drive, to fall, to sink, to fill, to freeze, to grow, to lie, to rise, to split, to shake, to involve, to move, to divide, to recycle, to accumulate

- II. **Поставьте глаголы в скобках в форму *Present Continuous Active*:**  
**Qavsdagi fe'llarni *Present Continuous Active* shaklida yozing:**

1. Engineers and scientists ... (*to look for*) new methods of prospecting and mining.
2. The country's leadership ... (*to work*) to attract foreign investment in the development of mineral deposits.
3. Intense internal processes constantly ... (*to take*) place in the earth's interior.
4. At the moment, the students of our group ... (*to make*) a topographic survey of the area.
5. Rivers in the southern part of our country now ... (*to flow out*) of their banks and ... (*to flood*) large areas because of rising temperatures and melting snow.
6. Weather and climatic conditions on the earth constantly ... (*to change*).
7. It should be noted that oil production technologies ... (*to develop*) and ... (*to improve*).
8. The weathering and destruction of rocks ... (*to take place*) all around us.

**III. Поставьте глаголы в скобках в форму *Past Continuous Active*:  
Qavsdagi fe'llarni *Past Continuous Active* shaklida yozing:**

1. We ... (*to watch*) television when the earthquake started.
2. All day yesterday the students ... (*to take*) measurements on the ground, and then ... (*to put*) the data on the map.
3. At the moment when I entered the classroom, the teacher ... (*to talk about*) sedimentary rocks.
4. A brigade of workers ... (*to work*) in the mine at the time of the methane release.
5. The workers ... (*to repair*) the drilling rig all day yesterday.
6. The scientist ... (*to prepare*) the equipment for the experiment for three hours.
7. During the experiment, the students ... (*to test*) the instruments for surveying.
8. Throughout the year, geologists ... (*to search for*) new oil deposits.

**IV. Образуйте форму *Future Continuous* от следующих глаголов:  
Quyidagi fe'llardan *Future Continuous* shakllarini hosil qiling:**

to cleave, to cut, to dig, to erupt, to create, to drive, to fall, to sink, to fill, to freeze, to grow, to lie, to rise, to split, to shake, to involve, to extend, to conduct, to move, to divide, to transform, to resist, to explore, to contribute, to dissolve, to break down, to transport, to weather, to expose, to decompose, to change

**V. Поставьте глаголы в скобках в форму *Future Continuous Active*:  
Qavsdagi fe'llarni *Future Continuous Active* shaklida yozing:**

1. Tomorrow, from 9 till 10 a.m., students ... (*to listen to*) a lecture on geology.
2. A partial solar eclipse ... (*to last*) for 3 hours.
3. Surveyors ... (*to survey*) the quarry over the next week.
4. Professor Smirnov ... (*to present*) his report at the time when we have classes in Physics.
5. Geologists ... (*to conduct*) an open-pit survey using drones and aircraft throughout the month.

6. All day tomorrow, scientists ... (*to process*) the obtained surveying measurements with the help of three-dimensional modeling.
7. Tomorrow morning I ... (*to prepare for*) a practical lesson in geology.
8. When my friend goes to the Caucasus in the summer, he ... (*to climb*) Mount Elbrus for six hours.

**VI. К каждому предложению задайте пять типов вопросов. Дайте краткий ответ на общий вопрос. Преобразуйте предложения в отрицательную форму:**

**Har bir gap uchun besh turdagi savol tuzing. Umumiy savolga qisqacha javob bering. Gaplarni inkor shaklga o'zgartiring:**

1. From March till September next year, scientists will be working on the introduction of robotics in the search and exploration of mineral deposits.
2. When the management of the mine comes to the meeting, the miners will be discussing the improvement of working conditions in the mine.
3. Throughout the year, scientists will be working to reduce the extraction of hydrocarbon natural resources.

**VII. Поставьте глаголы в скобках в соответствующую временную форму (*Present, Past* или *Future Continuous Active*):**

**Qavsdagi fe'llarni tegishli zamonga qo'ying (*Present, Past* yoki *Future Continuous Active*):**

1. Engineers and scientists ... (*to work*) on the development of new equipment and special facilities for the needs of the potash industry in Belarus.
2. For several months, the management ... (*to take*) all possible measures to improve the ventilation of the mine.
3. Ecologists ... (*to discuss*) the impact of mining on the environment at an international conference for 6 hours tomorrow.
4. The international community ... (*to take*) active steps to the use of alternative energy sources.
5. They ... (*to solve*) many important tasks for the development of the potash industry in our country.

6. While ambulance workers ... (*to provide*) medical assistance to the victims after the earthquake, survivors ... (*to help*) to pull people out from under the ruins.
7. Over the next ten years, humanity ... (*to go through*) changes in life and work on a global scale.
8. We constantly ... (*to use*) computer technologies both in all fields of science and technology and in everyday life.
9. During the demonstration of the new tunneling machine, all the miners ... (*to look at*) it with great interest and enthusiasm.
10. Scientists constantly ... (*to observe*) the planets of the solar system.

## Lesson 4

### Prospecting and Exploration Activities

#### Совершенное время Mukammal vaqt (*Perfect Tenses* *Active Voice*)

- I. Образуйте форму *Past Participle* от следующих глаголов:  
Quyidagi fe'llardan o'tgan zamon (*Past Participle*) shaklini hosil qiling:

to begin, to break, to analyze, to build, to restore, to cut, to involve, to examine, to drive, to change, to transform, to freeze, to develop, to cleave, to put, to shake, to split, to take, to grind, to bend, to disturb, to foliate, to give, to find

- II. Поставьте глагол в скобках в *Present Perfect*. Задайте к этим предложениям общий вопрос и преобразуйте их в отрицательную форму:

*Present Perfectdagi* qavs ichidagi fe'lni qo'ying. Ushbu gaplarga umumiy savol bering va ularni inkor shaklga aylantiring:

1. Geologists ... (*to explore*) the area for deposits of magnetite for a year.
2. The researchers ... (*to analyze*) all the data collected in the first phase of mapping and sampling.
3. Scientists ... (*to study*) the causes of climate change for decades.
4. Detailed exploration ... (*to reveal*) all the drawbacks of the preliminary exploration.
5. Since last year, geologists ... (*to carry out*) field investigations such as mapping, rock and soil sampling, aerial and seismic surveys.
6. Preliminary exploration already ... (*to demonstrate*) the feasibility of commercial development of the deposit.

7. This exploration method ... (*to become*) the most productive in the search for oil.
8. Geologists already ... (*to carry out*) preliminary exploration.

**III. Поставъте глагол в скобках в *Present Perfect* либо *Past Simple*.  
Переведите предложения на русский язык:  
Qavs ichidagi fe'llarni *Present Perfect* yoki *Past Simple* ga qo'ying.  
Gaplarni o'zbek tiliga tarjima qiling:**

1. a) Scientists ... (*to discover*) deposits of magnetite in this area two years ago.  
b) Scientists already ... (*to discover*) deposits of magnetite in this area.
2. a) For many decades, geologists ... (*to carry out*) exploration work to find new mineral deposits in Belarus.  
b) Last year, geologists ... (*to carry out*) exploration work to find new mineral deposits in Belarus.
3. a) Geologists ... (*to discover*) deposits of uranium, gold, iron ore and other minerals on the territory of our country.  
b) Geologists ... (*to discover*) deposits of uranium, gold, iron ore and other minerals on the territory of our country ten years ago.
4. a) Specialists already ... (*to complete*) a detailed exploration of the area.  
b) Specialists ... (*to complete*) a detailed exploration of the area last week.
5. a) Geologists ... (*to begin*) to exploit the country's subsurface extensively about 80 years ago.  
b) Geologists ... (*to exploit*) the country's subsurface extensively since the middle of the last century.

**IV. Поставъте глагол в скобках в *Past Perfect*. Переведите предложения на русский язык:  
Qavs ichidagi fe'lni *Past Perfect* ga qo'ying. Gaplarni o'zbek tiliga tarjima qiling:**

1. By the end of the last year, the miners ... (*to complete*) the tunneling work.

2. Before the focused exploration of the subsurface began, scientists carefully ... (*to test*) all the preliminary exploration samples in the laboratory.
3. The surveyors ... (*to complete*) the subsurface investigation at the site by the end of September.
4. Scientists, geologists, surveyors, miners and other specialists ... (*to carry*) out an enormous amount of research work before building the mine.
5. By the end of the last year the Belarusian potassium industry ... (*to produce*) about 53 million tonnes of potassium salt.
6. Mining specialists ... (*to conduct*) numerous investigations and measurements of the surface and subsurface in the area before they began putting the results of the measurements on plans and maps.
7. Geologists ... (*to carry out*) prospecting and estimation work before exploitation of the deposit began.
8. By 2018, geologists in Belarus ... (*to manage*) to increase oil production.

**V. Поставьте глагол в скобках в форму *Future Perfect*. Задайте общий вопрос и преобразуйте предложения в отрицательную форму. Переведите предложения на русский язык:**

**Qavs ichidagi fe'lni *Future Perfect* ga qo'ying. Ushbu gaplarga umumiy savol bering va ularni inkor shaklga aylantiring. Gaplarni o'zbek tiliga tarjima qiling:**

1. Specialist ... (*to complete*) preliminary exploration of the basalt deposit by November.
2. By the next year, our country ... (*to reduce*) the import of various types of mineral raw materials at the expense of its own explored deposits.
3. By the next year the company for the manufacture of ceramics ... (*to manufacture*) products that will be made of refractory clay mined in our country.
4. Our industry ... (*to produce*) basalt fibers by the end of the year.
5. Before starting a detailed exploration of the marshy area, scientists ... (*to perform*) a chemical analysis of peat ash, which is contained in the local marshes.



6. Specialists ... (*to reduce*) the import of clay, kaolin and quartz sand by the time the new deposits are put into development.
7. Before the break in the conference, the well-known scientist ... (*to make*) a report on the application of the biogeochemical method of mineral prospecting.
8. The application of biogeochemical methods ... (*to allow*) specialists to quickly investigate large areas of prospecting and identify promising areas by the beginning of next year.

**VI. Поставьте глаголы в скобках в соответствующую временную форму (*Present, Past, Future Perfect*). Переведите предложения на русский язык:**

**Qavs ichidagi fe'llarni tegishli zamon shakliga qo'ying (*Present, Past, Future Perfect*). Gaplarni o'zbek tiliga tarjima qiling:**

1. For a long time, scientists ... (*to use*) exploration methods such as seismic exploration and drilling to extract hydrocarbons from the sea.
2. Geophysical prospecting methods in Russia already ... (*to begin*) before the early 1950's.
3. By 2030, humanity ... (*to consume*) 50 % more food and 30 % more water than today.
4. Specialists ... (*to extract*) hydrocarbons in the shelf for decades.
5. Due to population growth and the development of the world economy, the global population ... (*to consume*) 50 % more energy by 2035.
6. Specialists not yet ... (*to complete*) drawing detailed exploration data on the map.
7. By the next year, the country's potash companies ... (*to increase*) production of potash salt reserves.
8. By 2017, the country's environmental services ... (*to conduct*) a number of activities that significantly reduced harmful emissions into the atmosphere.

**Прилагательное, наречие**  
**Sifat, ravish**  
**(The Adjective, the Adverb)**

- I. **Переведите прилагательные на русский язык. Обратите внимание на словообразовательные суффиксы прилагательных:**  
**Sifatlarni o'zbek tiliga tarjima qiling. Sifat yasovchi qo'shimchalarga e'tabor bering:**

helpless, useless, aimless, harmless, suitable, valuable, accessible, extensible, famous, dangerous, various, intelligent, different, dependent, aggressive, formal, aerial, commercial, central, political, heroic, historic, snowy, silky, dirty, daily, elementary, silken, wooden, interesting, shocking, surprising, attractive, operative

- II. **Переведите прилагательные на русский язык. Обратите внимание на префиксы:**  
**Sifatlarni o'zbek tiliga tarjima qiling. Old qo'shimchalarga e'tabor bering:**

uneasy, uninteresting, unusual, unknown, uncommon, unexpected, unsuccessful, uncomfortable, unreliable, unpleasant, unimportant, unbelievable, unforgettable, unhappy, unfriendly, unhealthy, pre-existing, pre-historic, subterranean, subsurface, infamous, independent, inexperienced, incapable, inconvenient, indifferent, dishonest, disloyal, impossible, irresponsible, illegal, illogical, interdependent, interchangeable

- III. **От следующих прилагательных при помощи префиксов (*un-*, *il-*, *in-*, *ir-*, *non-*) образуйте слова с противоположным смыслом и переведите их на русский язык:**  
**Quyidagi sifatlardan old qo'shimchalar yordamida (*un-*, *il-*, *in-*, *ir-*, *non-*) qarama-qarshi ma'noli sifatlar hosil qiling va ularni o'zbek tiliga tarjima qiling:**

legal, responsible, dependent, expected, limited, common, convenient, comfortable, reliable, interesting, pleasant, usual, successful, important, formal, expensive, suitable, educated, popular, forgettable,

direct, complete, proportional, perfect, regular, ferrous, functional, governmental, foliated

**IV. Переведите на русский язык прилагательные, которые образованы посредством словосложения:**

**So'z qo'shilishi yo'li bilan yasalgan sifatlarni o'zbek tiliga tarjima qiling:**

well-accepted, well-kept, well-done, well-balanced, well-built, well-educated, dark-brown, red-hot, world-famous, worldwide, south-western, deep-sea, good-looking, hard-working, time-saving, long-lasting, slow-moving, English-speaking, low-paid, one-sided, home-made, remote-controlled, part-time, full-time, absent-minded, fat-free, smoke-free, densely-populated, three-hour wait, four-page document

**V. При помощи суффикса -ly образуйте наречия от следующих прилагательных:**

**-ly qo'shimchasi dan foydalanib, quyidagi sifatlardan qo'ravish hosil qiling:**

slow, quick, beautiful, busy, deep, suitable, final, careful, hard, close, loud, fluent, practical, week, right, simple, polite, original, late, soft, exact, angry, possible, high, complete, easy, tragic, economic, happy, capable, rapid, cheap, regular, perfect, usual, special, probable

**VI. Переведите предложения на русский язык. Обратите внимание на место наречия в предложении:**

**Gaplarni o'zbek tiliga tarjima qiling. Ravishlarning gapdagi o'rniga e'tibor bering:**

1. The search for new mineral deposits is developing *rapidly*.
2. *Tomorrow* a survey of the area will be carried out.
3. There was an accident at the mine *yesterday*.
4. A new mine has been opened *recently*.
5. This year coal production has not reached the planned mark *yet*.
6. Preliminary exploration has not *yet* led to the desired results.

7. The level of harmful emissions in the mine is *constantly* monitored. *However*, accidents occur in the mine due to the release of methane.
8. *Usually*, a geodetic survey of the area is carried out before the construction of any building.
9. Working in the mine is *extremely* dangerous.
10. An explosion has *just* occurred at the mine due to a large methane release.

**VII. Выберите правильный вариант в скобках:**

**Qavs ichidagi to'g'ri variantni tanlang:**

1. These exploration methods are (*high / highly*) effective.
2. Detailed exploration gave (*unbelievable / unbelievably*) results.
3. This tunnel is (*incredible / incredibly*) long. (*Unbelievable / unbelievably*), but sometimes it happens.
4. Exploration of mineral deposits from space is (*highly / high*) effective indeed.
5. Sometimes waste rock or mining waste from the subsurface forms (*highly / high*) mountains.
6. According to the results of detailed exploration, scientists were able to (*accurate / accurately*) determine the scale of this deposit.
7. These (*accurately / accurate*) data were used in the exploration of the deposit.
8. Thanks to new methods of exploration of mineral deposits, scientists were (*rapidly / rapid*) advancing towards their goal.
9. The (*rapidly / rapid*) development of modern technologies leads to new discoveries in the depths of the earth.

**VIII. Образуйте сравнительную и превосходную степень следующих прилагательных:**

**Quyidagi sifatlar uchun qiyosiy va orttirma daraja hosil qiling:**

1) great		
2) high		
3) small		
4) long		

5) thin		
6) cold		
7) thick		
8) low		
9) hot		
10) big		

- IX. При помощи слов *more* и *the most* образуйте сравнительную и превосходную степени следующих многосложных прилагательных:**

***More* va *the most* so'zlardan foydalanib, quyidagi ko'p bo'g'inli sifatlar uchun qiyosiy va ortirma daraja hosil qiling:**

1) brittle		
2) abundant		
3) important		
4) significant		
5) vulnerable		
6) valuable		
7) comfortable		
8) intelligent		
9) useful		

- X. Дополните таблицу недостающими формами степеней сравнения прилагательных, которые являются исключениями:**

**Jadvalni istisno shaklga ega sifatlarining etishmayotgan sifat darajalari bilan to'ldiring:**

1) good		the best
2)	worse	
3) near		the nearest the next
4)	less	
5) far	further farther	
6)	older	the eldest

**XI. Исползуя слова *less* (менее) и *the least* (наименее), образуйте прилагательные с меньшей и наименьшей степенью качества: *Less* (kam) va *the least* (eng kam) so'zlarini ishlatib, sifat darajasining kam va eng kam bo'lgan darajalarini hosil qiling:**

1) shallow		
2) hard		
3) practical		
4) effective		
5) dangerous		
6) young		
7) interesting		
8) difficult		
9) viable		
10) narrow		

**XII. Переведите предложения на русский язык. Обратите внимание на степени сравнения прилагательных: Gaplarni o'zbek tiliga tarjima qiling. Sifatlarning qiyoslanish darajalariga e'tibor bering:**

1. This exploration well is deeper than that one.  
This exploration well is as deep as that one.  
This exploration well is not as deep as that one.  
This exploration well is the deepest of all.
2. Surface methods of exploration are not as effective as aerial methods.  
Surface methods of exploration are less effective than aerial methods.  
Aerial survey is more effective than surface methods of exploration.  
Satellite survey from space is the most effective method of exploration of the earth's surface.
3. This deposit is as rich in potash salt as that one.  
This deposit is not so rich in potassium as that one.  
This deposit is richer in potash salt than that one.  
This deposit is the richest in potassium in our country.

4. The overburden layer is the thickest in this part of the deposit.  
The overburden layer is thicker in this deposit than in that one.  
The overburden layer in this deposit is as thick as in that one.  
The overburden layer in this deposit is not so thick as in that one.
5. This chemical compound is harmful to living organisms.  
This chemical compound is less harmful to living organisms than that one.  
This chemical compound is as harmful to living organisms as that one.  
This chemical compound is the least harmful to living organisms of all the substances released into the environment.  
This chemical compound is the most harmful to living organisms of all the substances released into the environment.

**XIII. Переведите предложения на русский язык. Обратите внимание на перевод конструкции *the ..., the ... (чем ..., тем ...)* в сочетании с прилагательными в сравнительной степени:  
Gaplarni o'zbek tiliga tarjima qiling. *The ..., the ... (than ..., the ...)* konstruksiyalarining qiyosiy sifatlar bilan birgalikda tarjimasiga e'tibor bering:**

1. The sooner the preliminary exploration is completed, the sooner the detailed exploration will begin.
2. The more modern equipment is used in mineral exploration, the more reliable the samples will be.
3. The deeper the mine is, the harder the working conditions of miners are.
4. The richer the deposit is, the more important its commercial value is.
5. The higher the productivity of miners is, the higher their salaries are.
6. The more samples the geologists take, the easier it will be to establish the commercial value of the deposit.
7. The more successfully the exploration work is carried out, the more successfully the extraction work will be organized.
8. The better the technical facilities of the mine are, the easier the working conditions of the miners will be.

**XIV. Поставьте прилагательные в скобках в соответствующую степень сравнения. Переведите предложения на русский язык:  
Qavs ichidagi sifatlarni to'gri sifat darajasiga moslab qo'ying.  
Gaplarni o'zbek tiliga tarjima qiling:**

1. The ... (*large*) amount of mineral reserves is located in mountainous areas.
2. The ... (*much*) the humanity uses mineral resources, the ... (*fast*) the earth's reserves will be exhausted.
3. Fuel resources are the ... (*important*) resources for the development of all economies.
4. Underground mining is ... (*dangerous*) than surface mining because of the high risk of accidents.
5. The ... (*poor*) coal-producing countries are in South America.
6. The ... (*hard*) the working conditions of miners are, the ... (*low*) their productivity is.
7. The search for mineral deposits on the seafloor is as ... (*important*) as on the surface.
8. The ... (*large*) diamond quarry is in Yakutia.
9. The ... (*far*) from the surface there is a mineral deposit, the ... (*difficult*) it will be to extract it.
10. The reserves of key minerals that meet the needs of humanity are getting ... (*little*) and ... (*little*) every year.

**XV. Письменно переведите предложения на английский язык:  
Gaplarni yozma ravishda ingliz tiliga tarjima qiling:**

1. На дне Мирового океана сосредоточены богатейшие запасы полезных ископаемых.
2. Разведка рудных месторождений на дне моря (*on the seafloor*) обходится дороже, чем разведка рудных месторождений на поверхности земли.
3. Поиск залежей полезных ископаемых на морском дне сегодня является важнейшей задачей для исследователей.
4. Разведка месторождений полезных ископаемых из космоса более эффективна, чем наземная разведка, но и более дорогостояща.



5. Морская вода является богатейшим источником химических элементов.
  6. Детальная разведка так же важна, как и предварительная.
  7. Наиболее важными ресурсами, которые использует человек, являются энергия, сырье и пища.
  8. Качественная питьевая вода (*good quality drinking water*) так же важна для человека, как и чистый воздух.
- 
1. Foydali qazilmalarning eng boy zahiralari Jahon okeanining tubida jamlangan.
  2. Dengiz tubida (*on the seafloor*) ruda konlarini qidirish yer yuzasidagi ruda konlarini qidirishdan qimmatroq.
  3. Dengiz tubida foydali qazilmalar konlarini izlash bugungi kunda tadqiqotchilarning eng muhim vazifasi hisoblanadi.
  4. Foydali qazilma konlarini koinotdan o'rganish yerni o'rganishga qaraganda samaraliroq, lekin ayni paytda qimmatroqdir.
  5. Dengiz suvi kimyoviy elementlarning eng boy manbaidir.
  6. Tafsilotli razvedka dastlabki razvedka kabi muhim ahamiyatga ega.
  7. Inson foydalanadigan eng muhim resurslar energiya, xom ashyo va oziq-ovqat hisoblanadi.
  8. Sifatli ichimlik suvi (*good quality drinking water*) inson uchun toza havo kabi muhimdir.

## Lesson 5

### Sedimentary Rocks

#### Страдательный Залог Majhul nisbat (*The Passive Voice*)

- I. Найдите сказуемое в следующих предложениях, определите его время и залог. Переведите предложения на русский язык:  
Quyidagi gaplardan kesimni toping, uni qaysi zaman va qaysi nisbatda ekanigini aniqlang. Gaplarni tarjima qiling.
- Rocks are divided into three different types.
    - Geologists divided rocks into three main types.
  - People have used coal as a fuel for a long time.
    - Coal is used as a fuel.
  - Several organic compounds were obtained last year.
    - The chemists have obtained pure oxygen.
  - Chemical sedimentary rocks are not made of pieces of sediments.
    - They have mineral crystals made of elements dissolved in water.
  - The water in the oceans, lakes and ground is often full of dissolved elements.
    - Chemical sedimentary rocks are formed when dissolved materials precipitate from the solution.
  - Continental crust is composed of many different types of igneous, metamorphic and sedimentary rocks.
    - Continental crust consists of many different types of igneous, metamorphic and sedimentary rocks.
  - The rocks of the continental crust are often referred to as "sial".
    - Geologists often refer to the rocks of the continental crust as "sial".

8. a) The three classes of rocks are constantly being transformed from one to another.  
b) Many important geological processes are constantly transforming one type of rocks to another.
9. a) Gravel, sand and clay form the group of unconsolidated mechanical sediments.  
b) They are formed by the destructive action of water and wind.

**II. Раскройте скобки и поставьте глагол в одну из форм *Present Simple Passive*:**

**Qavslarni oching va fe'llarni *Present Simple Passive* shakllaridan biriga qo'ying:**

1. Higher engineering education in Belarus ... (*to provide*) by a number of universities.
2. Sedimentary rocks ... (*to find*) on or near the earth's surface.
3. I often ... (*to ask*) to take part at the conference.
4. The structure of the earth ... (*to divide*) into four major components.
5. Organic sedimentary rocks ... (*to form*) from hard biological materials.
6. Hard biological materials like plants, shells and bones ... (*to compress*) into rock.
7. These devices ... (*to sell*) by many companies.
8. The Mining Engineering degree in Britain ... (*to teach*) by Cambridge School of Mines.
9. During photosynthesis water and carbon dioxide from the air ... (*to convert*) into sugars.

**III. Раскройте скобки и поставьте глагол в одну из форм *Past Simple Passive, Future Simple Passive*:**

**Qavslarni oching va fe'llarni *Past Simple Passive, Future Simple Passive* shakllaridan biriga qo'ying:**

1. Sedimentary rocks were originally sediments, which ... (*to compact*) under high pressure.
2. The structure of the earth ... (*to speak about*) at the lecture yesterday.

3. The students ... (*to teach*) to carry out research next term.
4. I hope I ... (*to offer*) some new themes for my research soon.
5. The tests ... (*to undertake*) by the researches two weeks ago.
6. Next year summer industrial placement and practical classes in surveying and in test mines ... (*to include*) in the curriculum.
7. I don't think the experiment ... (*to carry out*) once again.
8. These phenomena ... (*to explain*) later on.

**IV. Выберите подходящую форму глагола. Обратите внимание на употребление *Continuous Passive*:**

**Fe'llarning to'g'ri shaklini tanlang. *Continuous Passive* ning qo'llanilishiga e'tibor bering:**

1. The creation of sedimentary rocks (*was being spoken about / is being spoken about*) when I entered the classroom.
2. The climate (*are being affected / is being affected*) greatly nowadays.
3. The engineer's project (*is being considered / was being considered*) at 5 p.m. yesterday.
4. The three classes of rocks (*are constantly being transformed / is constantly being transformed*) from one to another.
5. These materials (*were being investigated / are being investigated*) the whole day yesterday.
6. The physical properties of sedimentary rocks (*are being discussed / are discussing*) now.
7. These technologies (*were being used / are being used*) in a wide range of engineering fields nowadays.
8. The equipment (*was being repaired / was repairing*) from 9 to 11 a.m. yesterday.
9. While the generator is running, mechanical energy (*is converting / is being converted*) into electrical energy.
10. The samples of these rocks (*are used / are being used*) in the test now.

**V. Выберите подходящую форму глагола. Обратите внимание на употребление *Perfect Passive*:**

**Fe'llarning to'g'ri shaklini tanlang. *Perfect Passive* ning qo'llanilishiga e'tibor bering:**

1. The new equipment (*hasn't been installed / haven't been installed*) yet.
2. After the report (*has been completed / had been completed*) it was given to the supervisor.
3. The article (*had been translated / will have been translated*) by the end of next month.
4. Metamorphic rocks (*have been altered / has been altered*) by high pressures, temperatures and / or chemical reaction.
5. The previous results of the experiment (*were improved / had been improved*) by that time.
6. The use of chlorofluorocarbons (or CFCs) (*will have been restricted / has been restricted*) recently.
7. Electricity (*has been known / has known*) since ancient times, but scientists couldn't make use of it safely until the eighteenth century.
8. New engineering materials (*will be tested / will have been tested*) by next Tuesday.

**VI. Преобразуйте следующие предложения в отрицательные. Исправьте их по образцу, используя подсказки в скобках:**

**Gaplarni inkor shaklga aylantiring. Ularni qavsda berilgan so'zlar yordamida namunadagidek tuzating:**

Sediments were compacted under low pressure. (*high pressure*) –  
*Sediments were not (weren't) compacted under low pressure. They were compacted under high pressure.*

1. Oceanic crust is mostly composed of different types of granites. (*basalts*)
2. Chemical sedimentary rocks are made of pieces of sediments. (*mineral crystals*)
3. The properties of conductors are being studied by the students now. (*the properties of sedimentary rocks*)

4. Organic sedimentary rocks are formed from soft biological materials. (*hard*)
5. The test will be carried out by the researchers tomorrow. (*next week*)
6. Clay has been used to make ceramic objects for at least 500 years. (*15 000 years*)
7. The faulty electrical devices were being repaired the whole day yesterday. (*from 3 to 5 p.m. yesterday*)
8. These minerals will have been investigated by next week. (*next month*)

**VII. Задайте вопросы к подчеркнутым членам предложения. Обратите внимание на порядок слов:**

**Ajratib ko'rsatilgan gap bo'laklariga savol bering. So'zlar tartibiga e'tibor qarating:**

1. Earth is surrounded by a thick blanket of air.
2. In 1884 time zones were set up around the world.
3. Air pollution is mostly caused by human activities.
4. The deposits of diamonds have been found in the country recently.
5. The point of application of the force will be changed. (*общи́й во-прос / umumiy savol*)
6. New methods of work will have been introduced by the end of next year. (*общи́й во-прос / umumiy savol*)
7. The conductive properties of copper are being tested by my groupmates right now.
8. Great success was achieved in the field of mining engineering.

**VIII. Исправьте ошибки в следующих предложениях:**

**Quyidagi gaplardagi xatoliklarni tuzating:**

1. The mantle is mostly hot because heat has conducted from the core.
2. The asthenosphere is involved in plate tectonic movement and isostatic adjustments.
3. Each curriculum approved by the Ministry of Education of the Republic of Belarus.

4. The technique of making paper was taking to Russia and the Middle East by Chinese traders.
5. Where the first gold was mined?
6. The practical importance of this invention was proved recently.
7. I am afraid my coursework will not be completed by the end of the term.
8. Will be the lecture delivered tomorrow?
9. To obtain better results the method of investigation have been changed.
10. All the necessary measuring devices had prepared before the experiment started.

**IX. Перефразируйте следующие предложения, используя страдательный залог:**

**Quyidagi gaplarni majhul nisbatda yozing:**

1. Heat and pressure convert igneous and sedimentary rocks to metamorphic rocks.
2. They will hold the meeting tomorrow.
3. Physical changes such as melting, cooling, eroding form each type of rocks.
4. I will have finished the article by three p.m. tomorrow, so I will email it to you then.
5. Geographers divide Earth into hemispheres by using the Equator as a boundary line.
6. Scientists have discovered a gap in the protective ozone layer around Earth.
7. At the moment a wind turbine is generating about 800 kW.
8. Plants release oxygen into the air.
9. He mentioned this fact in his report.
10. After the students had completed the experiment, they compared the results.

**Согласование времен**  
**Прямая и косвенная речь**  
**Zamonlar moslashuvi**  
**Ko'chirma va o'zlashtirma gaplar**  
**(The Sequence of Tenses**  
**The Direct and Indirect Speech)**

**I. Соотнесите указатели времени при согласовании времен:**  
**Zamonlar moslashuvidagi vaqt ko'rsatkichlarini moslang:**

- |                  |                          |
|------------------|--------------------------|
| 1) today         | a) that evening          |
| 2) yesterday     | b) the next day          |
| 3) tomorrow      | c) that day              |
| 4) a year ago    | d) the day before        |
| 5) next weekend  | e) a year before         |
| 6) last week     | f) then                  |
| 7) these days    | g) the following weekend |
| 8) last month    | h) the previous week     |
| 9) now           | i) those days            |
| 10) this evening | j) the previous month    |

**II. Выберите верный вариант в скобках. Обратите внимание на основное правило согласования времен. Объясните свой выбор:**  
**Qavslar ichida to'g'ri variantni tanlang. Zamonlar moslashuvida asosiy qoidaga e'tibor bering. Tanlovingizni tushuntiring:**

1. Scientists predict that all parts of the world (*will be effected / would be affected*) by the climate change.
2. I was sure that you (*had passed / passed*) all exams (*last month / the previous month*).
3. He knew that his groupmates (*are carrying out / were carrying out*) an experiment (*then / now*).
4. Scientists believed that energy (*will be obtained / would be obtained*) from alternative sources.
5. I heard he (*has failed / had failed*) his exam in English (*yesterday / the day before*).



6. I was told that the research (*was carried out / had been carried out*) successfully.
7. The engineers noticed that the new approach (*is / was*) more fruitful.
8. I realized that I (*must / had to*) work hard to enter the university (*the following year / next year*).
9. No one knows for sure when Earth (*is formed / was formed*).
10. The miners didn't know what (*causes / had caused*) the explosion.

**III. Преобразуйте следующие предложения в косвенную речь, сделав все необходимые изменения:**

**Quyidagi gaplarni kerakli o'zgartirishlar kiritib, o'zlashtirma gapga aylantiring:**

1. "I'm performing calculations now".  
The assistant said that ... .
2. "A magnitude 7.8 earthquake occurred in southern Turkey near the northern border of Syria".  
They reported that ... .
3. "The first paper was made in China".  
The lecturer told us that ... .
4. "We have consumed a lot of electricity recently".  
He admitted that ... .
5. "Air pollution will cause the global warming of the climate".  
Scientists predicted that ... .
6. "This problem is too much spoken about today".  
The professor thought that ... .
7. "He took part in the research last year".  
The colleagues stated that ... .
8. "I am going to join a Master's program next year".  
She told me that ... .

**IV. Преобразуйте следующие специальные вопросы в косвенную речь, сделав все необходимые изменения:**

**Quyidagi maxsus so'roq gaplarni kerakli o'zgartirishlar kiritib, o'zlashtirma gapga aylantiring:**

1. "What time does the lecture start?"  
They asked me ... .

2. "What do you know about the formation of sedimentary rocks?"  
The teacher asked the students ... .
3. "Where are sedimentary rocks formed?"  
I was asked ... .
4. "Who is delivering the lecture on Earth's structure now?"  
He inquired ... .
5. "What are entry requirements for British universities?"  
He wondered ... .
6. "When did you graduate from the University?"  
The employer wanted to know... .
7. "How often do you participate in scientific projects?"  
I wanted to know ... .
8. "What information can organic sedimentary rocks give us?"  
The students were asked ... .

**V. Преобразуйте следующие общие вопросы в косвенную речь, сделав все необходимые изменения:**

**Quyidagi umumiy so'roq gaplarni kerakli o'zgartirishlar kiritib, o'zlashtirma gapga aylantiring:**

1. "Were there any difficulties during the experiment?"  
The engineers wondered ... .
2. "Have the researchers used another approach in their investigation?"  
They wanted to know ... .
3. "Will these phenomena be discussed in the article?"  
The student was interested ... .
4. "Are you specializing in environmental engineering?"  
The interviewer asked the applicant ... .
5. "Was the fault found?"  
We were all interested ... .
6. "Has the earthquake damaged any historic buildings?"  
The journalists inquired ... .
7. "Are you going to join a Master's course?"  
My supervisor asked me ... .
8. "Is it worth entering into a contract with this company?"  
The partners asked him ... .

**VI. Преобразуйте следующие просьбы, советы и предложения в косвенную речь:**

**Quyidagi buyruq va darak gaplarni kerakli o'zgartirishlar kiritib, o'zlashtirma gapga aylantiring:**

1. "Don't use faulty devices during the experiment".  
The assistant told us ....
2. "Tell me about minerals and rocks of the earth's crust".  
The teacher asked the students ... .
3. "I really don't think you should leave your job".  
My friend advised me ... .
4. "Why don't we take part in this conference?"  
My groupmates suggested ... .
5. "You must be on time for the seminar".  
They told me ... .
6. "Can you help me with my coursework?"  
I asked her ... .
7. "Don't tell anybody about his failure".  
She asked me ... .
8. "Don't forget to use new data in your article".  
My supervisor reminded me ... .

**VII. Преобразуйте косвенную речь в прямую, сделав все необходимые изменения:**

**Quyidagi o'zlashtirma gaplarni kerakli o'zgartirishlar kiritib, ko'chirma gapga aylantiring:**

1. They said that there would be heavy rain all day.  
They said, "...".
2. It was reported in the article that devastating earthquakes had killed thousands of people in Turkey.  
The journalists reported, "...".
3. The engineer told us that the device needed no improvement.  
The engineer said, "...".
4. My friend informed me that he had entered BNUT.  
My friend said to me, "...".
5. We were asked if we knew the difference between clastic, organic and chemical sedimentary rocks.  
They asked, "...?"

6. The teacher wanted to know whether I could give the examples of chemical sedimentary rocks.  
The teacher asked, "...?"
7. She was interested what I was doing in the lab then.  
She asked, "...?"
8. The reporter said that rain forests had been badly damaged by acid rains.  
The reporter said, "...".

**VIII. Исправьте ошибки в следующих предложениях:  
Quyidagi gaplardagi xatoliklarni tuzating:**

1. They announced that the new technology will be widely used in the future.
2. The student answered that he doesn't know about the formation of sedimentary rocks.
3. It was mentioned that the crustal minerals have been recycled during many millions of years of geologic times.
4. It was reported they would carry out the experiment tomorrow.
5. I wondered what was she reading then.
6. My supervisor persuaded me to not take another theme for my research.
7. He asked me if I completed my coursework.
8. I found out that electrically powered vehicles have been in use for many years.
9. The assistant told us that the engineer's project is still being considered.

**IX. Переведите предложения на английский язык, соблюдая правило согласования времен:  
Quyidagi gaplarni zamonlar moslashuviga oid qoidalarga rioya qilgan holda ingliz tiliga tarjima qiling:**

1. Профессор объяснил, как были образованы осадочные породы.
2. Студент рассказал нам, почему он поступил на факультет горного дела и инженерной экологии.

3. Она поинтересовалась, какие геологические процессы влияют на формирование осадочных пород.
4. Преподаватель спросил меня, что такое литосфера.
5. Мне интересно, когда будет проводиться собрание.
6. Инженеры говорят, что они скоро будут использовать новое оборудование.
7. Инженеры сказали, что новое оборудование не будет использоваться при добыче угля.
8. Они были уверены, что эксперимент сейчас проводится в лаборатории.
9. Они спросили, кто будет финансировать дальнейшее исследование.
10. В статье говорилось, что землетрясение повредило многие исторические здания.

1. Professor cho'kindi jinlar qanday paydo bo'lganligini tushuntirdi.
2. Talaba nima uchun konchilik va ekologiya fakultetiga o'qishga kirganini aytdi.
3. U cho'kindi jinlarning paydo bo'lishiga qanday geologik jarayonlar ta'sir ko'rsatishiga qiziqdi.
4. O'qituvchi mendan litosfera nima ekanligini so'radi.
5. Yig'ilish qachon bo'ladi, deb hayronman.
6. Muhandislar tez orada yangi jihozlardan foydalanishlarini aytishdi.
7. Muhandislar yangi uskuna ko'mir qazib olishda qo'llanilmasligini aytishdi.
8. Ular tajriba hozir laboratoriyada olib borilayotganiga ishonch hosil qilishdi.
9. Ular keyingi tadqiqotlarni kim moliyalashtirishini so'rashdi.
10. Maqolada zilzila ko'plab tarixiy binolarga zarar yetkazgani aytilgan.

# Lesson 6

## Metamorphic Rocks

### Модальные глаголы Modal fe'llar (The Modal Verbs)

I. Заполните пропуски модальным глаголом *can / can't*. Переведите предложения на русский язык:  
Nuqtalar o'rnini *can / can't* modal fe'llari bilan to'ldiring. Gaplarni o'zbek tiliga tarjima qiling:

1. Metamorphic rocks ... be transformed when exposed to high heat, but they will never melt.
2. He ... say anything about the classification of sedimentary rocks.
3. Magma and lava ... contain any life forms because they come from the deepest and hottest places on the earth.
4. Sedimentary rocks when given enough heat and pressure ... be turned into non-foliated metamorphic rocks.
5. Many elements ... form compounds with carbon.
6. – I ... solve this problem. – ... you help me?
7. At our University students ... study for free.
8. Foreign students ... enter Belarusian higher educational institutions.
9. You ... use this device. It's out of order.

II. Перефразируйте следующие предложения по образцу. Используйте *could / couldn't, was / were able to, will / won't be able to* для выражения возможности / способности совершения действия в прошлом и будущем:

Quyidagi gaplarni namunaga ko'ra yozing. O'tgan va kelasi zamonda imkoniyat va qobiliyatni ifoda etuvchi *could / couldn't, was / were able to, will / won't be able to* modal fe'llardan foydalaning:

Now he can continue his studies.

He could / was able to continue his studies last year.

He will be able to continue his studies in a year.

1. The engineers can extract copper in a few ways.
2. We can't use this old technology in production.
3. Can you explain the difference between foliated and non-foliated rocks?
4. The operator can control the process remotely now.
5. I can use this information in my coursework.
6. Graduates of our faculty can work for Belaruskali, Belarusneft, Granit and other enterprises.
7. Their company can't produce this type of machines.

**III. Выберите правильный вариант в скобках. Обратите внимание на употребление *may / might, to be allowed to*:**

**Qavslar ichidagi to'g'ri variantni tanlang. *May / might, to be allowed to* larning qo'llanilishiga e'tibor bering:**

1. The teacher said we (*may / might*) use a different method in solving this problem.
2. They (*will be allowed to / were allowed to*) continue their research next month.
3. I thought I (*may / was allowed to*) consult a dictionary during the exam.
4. I hope I (*may / might*) work with the new installed equipment.
5. Maybe this time the students (*will be allowed to / might*) watch the experiment.
6. She (*might have passed / may pass*) her exam two weeks ago.
7. The students (*are allowed to / were allowed to*) use new lab facilities during the previous experiment.
8. I was sure I (*might / will be allowed to*) take part in this conference.

**IV. Заполните пропуски модальным глаголом *must / mustn't*. Переведите предложения на русский язык:**

**Nuqtalar o'rniga *must / mustn't* modal fe'llarini mosini qo'ying. Gaplarni o'zbek tiliga tarjima qiling:**

1. The students ... follow all the instructions during the experiment.
2. They ... break the safety rules in the lab.
3. Students ... include the objective of the investigation in their coursework.

4. People ... smoke in a petrol station.
5. New technologies ... be used in mining.
6. The engineers ... complete all the preparations before the experiment.
7. Students ... be late for the lectures. They ... be on time.
8. You mustn't switch on the device without teacher's permission.

**V. Перефразируйте следующие предложения по образцу. Используйте *have to* для выражения долженствования / необходимости совершения действия в прошлом и будущем:**

**Quyidagi gaplarni namunaga ko'ra o'zgartiring. O'tmishda va kelajakda biror harakatni bajarish majburiyatini / zaruratini ifodalash uchun *have to* dan foydalaning:**

I must work hard to pass my exams.

I had to work hard to pass my exams last term.

I will have to work hard to pass my exams next term.

1. The students must study the classes of metamorphic rocks for the seminar.
2. Applicants must pass two centralized exams and one centralized test to enter a higher educational establishment in Belarus.
3. Must we do all the exercises on page 51?
4. You mustn't describe the whole procedure in details.
5. The engineers must test the new equipment.
6. The scientists must improve the previous results.
7. They mustn't discuss the problem right now.
8. Must they present the results of their research?

**VI. Перефразируйте следующие предложения по образцу. Используйте *should* / *shouldn't* для выражения совета / рекомендации:**

**Quyidagi gaplarni namunaga ko'ra o'zgartiring. Maslahatni ifoda etish uchun *should* / *shouldn't* dan foydalaning:**

It's better for you to be as accurate as you can.

You should be as accurate as you can.

1. I advise you not to ignore the safety rules.
2. I don't think it's a good idea to use cell phones during the classes.



3. I recommend you to attend the lecture on the types of rocks.
4. It's better for you not to rely on the data obtained.
5. It's important for you to learn this rule by heart.
6. I think it's the best thing for you to work independently.
7. I advise you to complete all the tests as soon as possible.
8. It's better for you to revise the material before your exam.

**VII. Исправьте ошибки в следующих предложениях:  
Quyidagi gaplardagi xatoliklarni to'g'irlang:**

1. Engineers must to cope with the changing demands of industries.
2. He will allowed to translate the article with a dictionary.
3. The teacher hasn't to explain the rule once again.
4. Had you to rewrite the test?
5. May I to use these results in my coursework?
6. You shouldn't to make the same mistake again.
7. Will you able to solve the equation?
8. Do metamorphic rocks can be transformed?

**VIII. Выберите правильный вариант в скобках:  
Qavsdagi to'g'ri variantni tanlang:**

1. Mountains (*should / mustn't / can*) be formed in three different ways.
2. The sediments (*must / were able / mustn't*) be packed together to form a rock.
3. At the end of each term students (*shouldn't / have to / were allowed to*) pass tests and examinations.
4. I (*can't / will have to / must*) wait any longer. The seminar starts in 5 minutes.
5. You (*mustn't / have to / may*) contact the source of electricity.
6. Miners (*must / mustn't / are allowed to*) follow safety rules to avoid injuries.
7. I hope I (*will be allowed to / could / had to*) take another theme for my course work.
8. The engineers said they (*are able / might / will be allowed to*) make any changes to the system.
9. He tried hard but (*mustn't / wasn't able to / may not*) complete the work without teacher's help.

**IX. Переведите предложения на русский язык. Обратите внимание на сочетание модальных глаголов с перфектным инфинитивом: Gaplarni o'zbek tiliga tarjima qiling. Modal fe'llarning perfect infinitivdagi ifodalariga e'tibor qarating:**

1. He cannot have failed his exam in mathematics.
2. She might have known that metamorphic rocks are formed deep in the planet's crust.
3. They must have paid more attention to the problem of global warming.
4. The scientists may have already obtained the necessary data.
5. The student couldn't have read about the earth's structure.
6. You should have told me that he wouldn't come to the conference.
7. He should have come earlier for the seminar.

## **Числительное Son (The Numerals)**

**I. Произнесите следующие количественные числительные:  
Quyidagi sanoq sonlarni ayting:**

200; 42; 384; 1,251; 36,411; 382,453; 446; 5,000,000; 17,238; 829;  
3,784, 321; 89; 112

**II. Преобразуйте следующие количественные числительные в порядковые:  
Quyidagi sanoq sonlarni tartib sonlarga o'zgartiring:**

1; 2; 3; 30; 116; 95; 87; 201; 647; 28; 599; 4; 62; 28; 13; 883

**III. Передайте в словесной форме следующие даты:  
Quyidagi sanalarni yozma tarzda ifodalang:**

30.07.1948; 21.12.2021; 16.11.2000; 26.04.1146; 14.02.2023;  
01.01.1977; 15.08.1846

**IV. Произнесите следующие дроби:**

**Quyidagi kasrlarni ayting:**

1.  $5/8$ ;  $1\ 1/2$ ;  $7/25$ ;  $3/4$ ;  $7\ 5/10$ ;  $2/5$ ;  $4\ 3/8$ ;  $8/14$ ;  $1/3$
2. 0.42; 29.43; 0.001; 101.38; 0.07; 584.791; 36.14; 2.55

**V. Прочитайте вслух следующие факты. Обратите внимание на числительные:**

**Quyidagi faktlarni ovoz chiqarib o'qing. Sonlarga e'tibor qarating:**

1. Ozone, a form of oxygen, filters out more than *90 %* of the Sun's harmful rays.
2. The largest recorded earthquake reached a magnitude *9.5*. It happened in Chile in *1960*.
3. Earth's inner core is *1,370 km (850 miles)* deep and is thought to have the temperature of around *4,500 °C (8,132 F)*.
4. The diameter of Jupiter is *142,984 km (88,846 miles)*, more than *11* times that of Earth and about *1/10* that of the Sun.
5. The speed of light is about *300,000 km (185,000 miles)* per second.
6. The Moon orbits Earth once every *27.3* days, a lunar month.
7. Coal is formed by the compressed remains of plants that lived in bogs *250–350* million years ago.
8. Russia is the largest country in the world by surface area, covering more than *1/8* of Earth's inhabited land, area with over *146,000,000* people at the end of December *2022*.
9. Numbers can describe how many objects there are, or their position among lots of objects – for example *1<sup>st</sup>, 2<sup>nd</sup> or 5<sup>th</sup>*.
10. Our planet is a very restless place. Every *30* seconds the ground suddenly rumbles and trembles.

## Многофункциональные слова Ko'p funksiyali so'zlar (Multifunctional Words)

I. Определите функцию слова *one* в следующих предложениях и переведите предложения на русский язык:  
Quyidagi gaplardagi *one* so'zining ifodalanishiga e'tibor qarating va gaplarni o'zbek tiliga tarjima qiling:

1. *One* should distinguish between clastic, organic (biological) and chemical sedimentary rocks.
2. Metamorphic rocks form when heat and pressure transform an existing rock into a new *one*.
3. Metamorphic rocks form *one* of the three great divisions of rock types.
4. Earth's atmosphere is made up of about 20 different gases. The two main *ones* are oxygen and nitrogen.
5. *One* of the animals that have survived in the Arctic conditions is the polar bear.
6. No *one* knows for certain when Earth was formed.
7. About *one*-third of the world's land surface is covered by desert.
8. *One* should know that up to 40 % of steel may have come from old cars.
9. Foliation develops when a rock is being shortened along *one* axis during recrystallization.
10. Some materials are good conductors of heat and others are poor *ones*.

II. Определите функцию *it*, *that* в следующих предложениях и переведите предложения на русский язык:  
Quyidagi gaplardagi *it*, *that* so'zlarining ifodalanishiga e'tibor qarating va gaplarni o'zbek tiliga tarjima qiling:

1. Foliation means the parallel arrangement of certain mineral grains *that* gives the rock a striped appearance.
2. *It* is known *that* the Sun is our nearest star.
3. *It* is heat and light from the Sun *that* makes life on Earth possible.
4. Earth's atmosphere is one of the things *that* makes *it* a planet of life.
5. *It* is worth while discussing *that* matter.

6. The atomic weight of oxygen is greater than *that* of carbon.
7. I have just told them *it* was your project.
8. Semiconductors' electrical conductivity at ordinary temperature falls between *that* of metals and *that* of insulators.
9. Slate is another common metamorphic rock *that* forms from shale.
10. *It* is one of the examples of chemical sedimentary rocks.
11. *It* is gneiss *that* attracts the attention of scientists.
12. *It* is thought *that* this approach will be more helpful.
13. Hemisphere is the name given to any half of the globe. *It* comes from a Greek word *that* means half a sphere.
14. *It* was in September when we started our experiment.
15. Air is matter, and like all matter *it* has weight.
16. One of the most interesting applications of *that* machine was discussed at the conference.
17. *It* is not easy at all to put *it* into practice.

**III. Определите функцию *as, since, for* в следующих предложениях и переведите предложения на русский язык:**

**Quyidagi gaplardagi *as, since, for* so'zlarining ifodalanishiga e'tibor qarating va gaplarni o'zbek tiliga tarjima qiling:**

1. It is difficult to believe *it for* so many attempts have been made.
2. We've been working on this project *for* half a year.
3. These tests have been performed *since* 2021.
4. *Since* everything was ready the engineers didn't want to waste time.
5. *As* Earth spins on its axis, the Sun always shines on one side giving us sunlight.
6. They were not ready to discuss this problem *as* nobody had informed them about it.
7. This technique is considered *as* being more efficient.
8. I haven't seen him *since* I graduated from the University.
9. We think of ordinary light *as* being "white", but really light is a mixture of red, orange, yellow, green, blue and violet.
10. Electrically powered vehicles have been in use *for* many years.
11. Thermoplastics are widely used *since* they are easier to handle.
12. This presentation lasts *for* an hour.
13. *As* the time passed we were able to see the changes.
14. Insulation must often be waterproof *for* wet materials can become conductors.

# Lesson 7

## Igneous Rocks

### ИНФИНИТИВ

### Infinitiv

### (*The Infinitive*)

#### I. Вставьте частицу *to* там, где это необходимо:

**Kerakli joyga *to* yuklamasini qo'ying:**

1. This article is too difficult ... be translated without a dictionary.
2. Igneous rocks can ... tell us much about the tectonic environment.
3. If you let me ... borrow your laptop, I promise ... give it back tomorrow.
4. She was the first ... solve this problem.
5. At the surface metamorphic rocks may ... break down into sediments.
6. There's nothing ... discuss now.
7. You'd better ... revise the material before your exam.
8. All University students have ... pass exams at the end of the term.
9. We were ... meet at the University at 6 p.m. yesterday.

#### II. Переведите следующие пары предложений на русский язык, обращая внимание на функции инфинитива:

**Infinitiv funktsiyalariga e'tibor berib, quyidagi jummalarni o'zbek tiliga tarjima qiling:**

1. a) To find out some information about the tectonic environment is quite possible.  
b) To find out some information about the tectonic environment igneous rocks can be used.
2. a) Our primary task is to complete this laboratory experiment.  
b) To complete this laboratory experiment will not take much time.
3. a) To achieve the desired results various methods were employed.  
b) To achieve the desired results is vital.

4. a) It is easy to follow these instructions.  
b) To follow these instructions is easy.
5. a) To pass your exam in English you should work hard.  
b) To pass your exam in English is rather difficult.
6. a) My decision is to take part in this conference.  
b) To take part in this conference I'll have to make a report.

**III. Соедините части предложений. Обратите внимание на употребление инфинитива в функции обстоятельства цели. Переведите предложения на русский язык:**

**Gap qismlarini bog'lang. Maqsad holi vazifasidagi infinitivning ishlatilishiga e'tibor bering. Gaplarni o'zbek tiliga tarjima qiling:**

- |   |   |
|---|---|
| 1. The mineral and chemical makeup of igneous rocks is used | a) (in order) to generate electricity.  |
| 2. Iron ore is used   | b) (in order) to learn about the composition, temperature and pressure within Earth's mantle. |
| 3. People mostly use Google                                 | c) (in order) to form a metamorphic rock.   |
| 4. Coal is used   | d) (in order) to make steel   |
| 5. We use photoelectric material                            | e) (in order) to extract valuable resources from the earth.                                   |
| 6. Three conditions should be met                           | f) (in order) to make electricity from solar energy   |
| 7. We learn the English language                            | g) (in order) to find the necessary information quickly                                       |
| 8. Mining is used   | h) (in order) to read books on speciality.  |

**IV. Переведите предложения на русский язык, обращая внимание на перевод инфинитива в функции определения:**

**Aniqlovchi funktsiyasidagi infinitivning tarjimasiga e'tibor berib, jumalarni o'zbek tiliga tarjima qiling:**

1. Isaac Newton was the first to uncover the secrets of how light is divided up.
2. The first ores of iron to be mined were deposits of magnetite.

3. Earth is the only known place in the Universe to support life.
4. The data to be referred to in his research are very important.
5. The rocks to be studied are extrusive igneous rocks.
6. The report to be presented at the seminar deals with the formation of clastic sedimentary rocks.
7. The book to be published next year is written by our professor.
8. He has a great desire to get mining education.

**V. Переведите предложения на русский язык, обращая внимание на перевод инфинитива в функции обстоятельства следствия:  
Sabab holi funktsiyasidagi infinitivning tarjimasiga e'tibor berib, jummalarni o'zbek tiliga tarjima qiling:**

1. Phosphorous is too active to be found free in nature.
2. Molecules are too small to be seen even with the most powerful microscope.
3. This method is reliable enough to give accurate results.
4. Granite is strong enough to bear significant weight.
5. Igneous rocks are too hard to be broken.
6. This problem is too difficult to be settled without further consultations.
7. The article is sufficiently informative to be used in the report.

**VI. Выберите правильную форму инфинитива (в активном или страдательном залоге):  
Infinitivning to'g'ri shaklini tanlang (aniq nisbat yoki majhul nisbatda):**

1. Copper was one of the first metals (*to be mined / to mine*) by humans.
2. In order (*to survive / to be survived*) animals must have an adequate supply of oxygen.
3. This is the sample of the rock (*to examine / to be examined*).
4. The engineers have (*to be known / to know*) the best and the most economical materials (*to use / to be used*).
5. For a metamorphic rock (*to be created / to create*) it is vital that the existing rock remains solid and doesn't melt.
6. You can break this model. It was made (*to test / to be tested*).



7. Rocks that undergo changes (*to be formed / to form*) a rock are called metamorphic rocks.
8. The car emissions (*to control / to be controlled*) are very harmful to the environment.

**VII. Восстановите структуру предложений с инфинитивом:  
Infinitiv bilan gaplarning tuzilishini tiklang:**

1. three, a metamorphic rock, are, conditions, required, to form.
2. the aim, is, of the publication, up-to-date, to present, methods, mining.
3. all, to maintain, require, oxygen, life, living, organisms.
4. is, the, here, to be checked, data.
5. this, accurate, not, to, method, to give, is, enough, results, reliable.
6. to create, Volta, scientist, the Italian, was, the first, battery, an electric.
7. must, the solution, freshly, be, prepared, to be used.

**Сложные обороты с инфинитивом  
infinitivli murakkab aylanmalar  
(The Infinitive Constructions)**

**I. Переведите предложения на русский язык, обращая внимание на перевод инфинитивного оборота *сложное дополнение*:  
Gaplarni o'zbek tiliga tarjima qiling. *Murakkab to'ldiruvchi* ning infinitivli aylanmasiga e'tibor bering:**

1. Iron has a lot of carbon in it which makes it crack very easily.
2. Igneous rocks allow us to learn about the composition, temperature and pressure within Earth's mantle.
3. Intense heat and pressure causes granite to turn into gneiss.
4. We know chemical sedimentary rocks to be formed when dissolved materials precipitate from solution.
5. During the experiment they saw the temperature fall rapidly.
6. They report copper to have been used in prehistoric times for making tools.

7. The Professor wanted his students to make a report about different types of rocks.
8. We expect his research results to be presented at the conference.

**II. Перефразируйте следующие предложения по образцу. Используйте инфинитивный оборот *сложное дополнение*:  
Namunaga qarab quyidagi gaplarni qayta yozing. *Murakkab to'ldiruvchi* ning infinitivli aylanmasidan foydalaning:**

Why don't you join Master's program? (*I would like ...*)  
*I would like you to join Master's program.*

1. She had to pay for the damage. (*They made ...*)
2. I was told that I should carry out the necessary measurements before the experiment. (*The specialist advised ...*)
3. He said I could use the results of the experiment in my coursework. (*He allowed ...*)
4. Don't switch on the current. (*I don't recommend ...*).
5. Their company can produce this type of machines now. (*Modern technologies enabled ...*)
6. Why don't you get mining education? (*My parents want ...*)
7. We had to introduce new methods in our work. (*This equipment caused ...*)
8. You should complete the coursework on time. (*The tutor expects ...*)

**III. Исправьте ошибки в следующих предложениях:  
Quyidagi gaplardagi xatolarni tuzating:**

1. This analysis permitted them obtain new data.
2. Their knowledge has enabled they to understand this phenomenon.
3. We know basalt be a common form of extrusive igneous rock.
4. They watched the temperature to rise gradually.
5. The assistant warned us not ignore the safety rules.
6. High heat and pressure make sedimentary rocks to turn into non-foliated metamorphic rocks.
7. Let me to describe how intrusive igneous rocks are formed.
8. His discovery allowed many important problems to solve.

**IV. Восстановите структуру предложений с инфинитивным оборотом сложное дополнение:  
Gap tuzilishini tuzating:**

1. would like, I, you, in your field, to use, the latest innovations.
2. "metamorphosis", the term, we, a change, to indicate, know, to another, from one thing, a change.
3. expected, the conference, in April, he, to take place.
4. enabled, to obtain, us, the observations, new data.
5. the most common type, the student, of plutonic igneous rocks, to be, granite, supposed.
6. of a substance, particle, the ancients, a molecule, thought, to be, the smallest.
7. I, continental crust, of different types, of igneous, found out, metamorphic, and, sedimentary rocks, to be made up.

**V. Переведите предложения на русский язык, обращая внимание на перевод инфинитивного оборота сложное подлежащее:  
Gaplarni o'zbek tiliga tarjima qiling, murakkab kesim li infinitive aylanmasining tarjimasiga e'tibor bering:**

1. Greenhouse gases are considered to contribute to global warming.
2. Clay is believed to have been used to make ceramic objects for at least 15,000 years.
3. The mantle is known to make up 84 % of Earth's volume.
4. Carbon is stated to be the main component of such fuels as coal, petroleum and natural gas.
5. Crystals appear to be formed from dissolved substances or when molten substances cool slowly.
6. This energy source seems to be inexhaustible.
7. This device is likely to have been used for a long time.
8. Mining Engineering is believed to be one of the most in-demand branches of study.

**VI. Раскройте скобки в следующих предложениях:  
Quyidagi jumalarni qavslarni ochib yozing:**

1. This method ... (*to seem*) to offer some advantages.
2. Igneous rocks ... (*to know*) to be the most common type of rocks in the earth's surface.

3. He ... (*to say*) to be a good specialist in this field.
4. The problem ... (*to prove*) to be less critical than we expected.
5. The core ... (*to report*) to form only 15 percent of Earth's volume.
6. Rubber and plastic ... (*to consider*) to be good insulators.
7. Granite ... (*to say*) to be composed primarily of quartz, feldspar and mica.
8. He ... (*to be certain*) to pass all his exams successfully.

**VII. Исправьте ошибки в следующих предложениях:  
Quyidagi gaplardagi xatolarni tuzating:**

1. She unlikely to graduate from the University this year.
2. Intrusive igneous rocks say to be coarse-grained.
3. Oceanic crust are stated to be mostly composed of different types of basalts.
4. The problem of global warming is seemed to be of vital importance.
5. Electric cars are supposed find a wide application soon.
6. Organic sedimentary rocks is likely to give us a record of what happened in the area they are found in.
7. The results of the experiment are happened to be inaccurate.
8. The engineer is expected will find the solution of the problem quickly.

**VIII. Восстановите структуру предложений с инфинитивным оборотом  
сложное подлежащее:  
Murakkab kesimli infinitivli gaplarni to'g'ri tartibda yozing:**

1. a conductor, to have, is, low resistance, sure.
2. happens, to be, the mantle, constant, in, motion.
3. are, silicate, aluminum, and, known, to be, in, crust, continental, the most, minerals, abundant.
4. to support, Earth, likely, the only, is, to be, place, in the Universe, life.
5. to get, to this, the scientists, unlikely, the answer, are, question.
6. appear, to grow, some, into, and, complicated, crystals, beautiful, shapes.
7. valuable, to possess, proves, this substance, properties.
8. is, the research, to have, carried out, been, reported, successfully.

**IX. Исползуя сложные обороты с инфинитивом, письменно переведите на английский язык следующие предложения:**

**Murakkab aylanmali infinitivdan foydalanib, quyidagi gaplarni ingliz tiliga tarjima qiling:**

1. Интенсивное давление и высокая температура заставляют гранит превращаться в гнейс.
  2. Органические осадочные породы позволяют нам узнать, что происходило в той местности, где они были обнаружены.
  3. Вы хотели бы, чтобы я объяснил, как образуются магматические породы?
  4. Новые данные дают нам возможность провести еще один эксперимент.
  5. Похоже, ваш метод имеет ряд преимуществ.
  6. Предполагается, что ученые завершат исследование через месяц.
  7. Известно, что гранит образуется при относительно медленном остывании магмы под землей.
  8. Говорят, что магматические породы являются наиболее распространенным типом горных пород на поверхности Земли.
- 
1. Kuchli bosim va yuqori harorat granitning gneysga aylanishiga olib keladi.
  2. Organik cho'kindi jinslar ular topilgan hududda nima sodir bo'lganligini bilish imkonini beradi.
  3. Magmatik jinslar qanday hosil bo'lishini tushuntirib berishimni xohlaysizmi?
  4. Yangi ma'lumotlar bizga yana bir tajriba o'tkazish imkoniyatini beradi.
  5. Sizning usulingiz bir qator afzalliklarga ega ko'rinadi.
  6. Olimlar tadqiqotni bir oyda yakunlashi taxmin qilinmoqda.
  7. Ma'lumki, granit er ostidagi magmaning nisbatan sekin sovishi jarayonida hosil bo'ladi.
  8. Magmatik tog' jinslari Yer yuzasida eng ko'p tarqalgan jinslar deyiladi.

## Lesson 8

### Weathering of Rocks

#### Причастие Sifatdosh (The Participle)

- I. Переведите следующие словосочетания, обращая внимание на причастие в функции определения:

Aniqlovchi vazifasidagi kesimga e'tibor berib, quyidagi iboralarni tarjima qiling:

a. *Participle I Simple*

carbonic acid *dissolving* limestone; the water *containing* impurity; precipitation *changing* the composition of the soil; the amount of energy *being produced* right now; weathering *occurring* under the influence of living organisms; the pressure *being measured* now; the method *improving* safety and efficiency

b. *Participle II*

chemicals *combined* with sunlight and moisture; mechanical weathering *known* as disaggregation; fossil fuels *formed* more than 60 million years ago; the rock *subjected* to intense heat; tiny rock fragments *lost* in the split; a process *called* thermal stress; the tasks *done* by people; the results *presented* at the conference; the conditions *required* to form a metamorphic rock

- II. Перефразируйте следующие предложения по образцу, используя *причастие I* или *причастие II* в функции определения:

Namunaga ko'ra aniqlovchi vazifasida kelgan *sifatdosh I* yoki *sifatdosh II* dan foydalanib quyidagi gaplarni qayta ifodalang:

The girl **who is making a report** is a graduate of the faculty of mining and environmental engineering. – *The girl **making a report** is a graduate of the faculty of mining and environmental engineering.*

1. There are three main methods of mining we use to extract resources from the ground.
2. The two common types of metamorphic rocks are marble that comes from limestone and slate that comes from shale.
3. Animals that live or roam underground may also break apart rocks and soil.
4. Strip mining is used to obtain coal and minerals that lie close to the surface.
5. Weathering agents are the things that contribute to the process of weathering.
6. Organic sedimentary rocks are formed from hard biological materials that are compressed into rock.
7. An asteroid is any of numerous small planetary bodies that revolve around the Sun.

**III. Переведите следующие предложения на русский язык, обращая внимание на функции причастия I:**

**Sifatdosh I ga e'tibor bergan holda quyidagi gaplarni o'zbek tiliga tarjima qiling:**

1. Rocks *undergoing* changes to form a new rock are called metamorphic rocks.
2. *Having been exposed* to weathering processes metamorphic rocks break down into sediments.
3. When *freezing* the soil releases heat to the atmosphere.
4. The professor *delivering* the lecture on weathering provided a lot of examples.
5. The issues *being considered* now are very important.
6. *Having employed* various methods the scientists achieved the desired results.
7. *Having been tested* the equipment was installed in the laboratory.
8. While *translating* the article on oceanic crust the students consulted a dictionary.
9. *Being informed* about the seminar too late he couldn't attend it.
10. *Having carried out* the necessary measurements we started the experiment.
11. *Being primarily composed of* iron Earth's core is extremely hot.

**IV. Переведите следующие предложения на русский язык, обращая внимание на функции причастия II:**

**Sifatdosh II ga e'tibor bergan holda quyidagi gaplarni o'zbek tiliga tarjima qiling:**

1. The minerals *found* in the rock are dissolved in the rainwater.
2. If *heated* copper expands more than iron.
3. When *filled* with water the basins form the planet's oceans.
4. The mantle is hot mostly because of heat *conducted* from the core.
5. If *subjected* to intense heat and pressure granite turns into gneiss.
6. The Equator is an imaginary line *drawn* around the outside of Earth.
7. The data *referred to* in the report attracted great attention.
8. Unless *heated* this rock doesn't melt.
9. Granite is an igneous rock *formed* when magma cools slowly underground.

**V. Выберите правильную форму причастия:**

**Sifatdoshning to'g'ri shaklini tanlang:**

1. The conditions (*required* / *requiring*) to form a metamorphic rock are very specific.
2. When ground temperatures drop to 0 °C the water (*having trapped* / *trapped*) in sediment, soil and pores of rocks turns to ice.
3. The rocks (*studying* / *being studied*) now are foliated metamorphic rocks.
4. Hemisphere is the name (*given* / *having been given*) to any half of the globe.
5. As the tree roots grow, they widen the cracks (*breaking* / *broken*) the rock into pieces.
6. (*Graduating* / *having graduated*) from the University he became a qualified mining engineer.
7. A monsoon is a season of very heavy rain (*falling* / *fallen*) in tropical countries.
8. The atmosphere is the gaseous envelope (*being surrounded* / *surrounding*) the solid body of the planet.
9. (*Having been analyzed* / *having analyzed*) the tests results were recorded.



**VI. Исправьте ошибки в следующих предложениях:  
Quyidagi gaplardagi xatolarni tuzating:**

1. The equipment adjusting by a skillful operator now is very reliable.
2. The lecture having delivered deals with the process of weathering.
3. Metamorphic rocks typically having been formed deep in the planet's crust are often exposed on the surface of the earth.
4. The energy problem tackled now is of great importance.
5. Having graduating from the University he joined a Master's course.
6. Great success achieving in the field of mineral exploration was discussed at the conference.
7. Having been passed all exams successfully he got a scholarship.

**Сложные обороты с причастием  
Sifatdoshli qo'shma gaplar  
(Participial Constructions)**

**I. Переведите предложения на русский язык, обращая внимание на оборот *сложное дополнение с причастием*:  
Gaplarni o'zbek tiliga tarjima qiling. To'ldiruvchi ergash gapli qo'shma gaplardagi sifatdoshlarga e'tibor bering:**

1. We consider igneous rocks being the most common type of rocks on the earth's surface.
2. I'd like to watch them working with this equipment.
3. I heard him explaining the way of how potassium is extracted.
4. We found carbonic acid being especially effective at dissolving limestone.
5. The scientists noticed certain kinds of air pollution increasing the rate of weathering.
6. We know water and wind power being used extensively today.
7. They saw the temperature gradually rising.

**II. Перефразируйте следующие предложения по образцу, используя оборот *сложное дополнение с причастием*:**

**Namunaga ko'ra quyidagi gaplarni sifatdoshli murakkab to'ldiruvchilardan foydalanib tarjima qiling:**

The assistant watched **how the students were carrying out** the analysis of the data. – *The assistant watched **the students carrying out** the analysis of the data.*

1. I heard how the student of our faculty was explaining the main characteristics of igneous rocks.
2. We know that anthracite is the hardest and purest form of coal.
3. I'd like to see how they are adjusting new equipment.
4. Scientists consider that air pollution is mostly caused by human activities.
5. You can watch how he is working in the lab right now.
6. Ecologists assume that acid rain is harmful to the entire environment.
7. We suppose that this group of researchers applies advanced methods of investigation.

**III. Восстановите структуру предложений с оборотом *сложное дополнение с причастием*:**

**Gaplarni sifatdoshli to'ldiruvchi ergash gapli qo'shma gaplar shaklida tuzing:**

1. know, contributing, to mechanical, I, weathering, living, organisms.
2. geologists, changing, the surface, all, noticed, of the Earth, the time.
3. watched, them, I, a, device, experimenting, with, new.
4. they, wet, accelerating, found, of, the rate, climate, weathering, chemical.
5. acid, consider, rain, the consequences, ecologists, being, one of, pollution, of air.
6. suppose, a crucial, playing, we, weathering, role, in the balance, of the environment.

**IV. Переведите предложения на русский язык, обращая внимание на оборот *сложное подлежащее с причастием*:**

**Gaplarni Ozbek tiliga tarjima qiling. Sifatdoshli kesim ergash gapli qo'shma gaplarga e'tibor bering:**

1. Weathering is considered being the first step in the production of soils.
2. Open-pit is assumed being widely used in mining.
3. Chemical weathering is found changing the molecular structure of rocks and soil.
4. The engineers are reported making mining more efficient nowadays.
5. This device is shown having many faults.
6. The central cores of major mountain ranges are known consisting of large bodies of intrusive igneous rocks.
7. They are watched studying some samples of igneous rocks.

**V. Перефразируйте следующие предложения по образцу, используя оборот *сложное подлежащее с причастием*:**

**Quyidagi gaplarni namunaga ko'ra sifatdoshli kesim ergash gapli qo'shma gapdan foydalanib qayta ifodalang:**

It is found **that organic sedimentary rocks contain** significant amounts of organic carbon. – ***Organic sedimentary rocks are found containing significant amounts of organic carbon.***

1. It is known that continental crust is made up of many different types of igneous, metamorphic and sedimentary rocks.
2. It is observed that the student is explaining the process of mechanical weathering.
3. It is found that acid rain has huge impact on such rocks as limestone and marble.
4. It is considered that water is the key agent in mechanical weathering.
5. It is stated that Earth's layers interact with each other.
6. It is reported that geologists collect samples of oceanic crust through drilling at ocean floor.
7. It is believed that each mining method has various degrees of safety.

**VI. Восстановите структуру предложений с оборотом *сложное подлежащее с причастием*:**

**Gaplarni sifatdoshli kesim ergash gapli qo'shma gaplar shaklida tuzing:**

1. observed, chemical, caves, unusual, and, weathering, landscapes, is, producing.
2. forest, causing, are, found, fires, expansion, thermal, of the rocks.
3. weathering, frost, is, as being, important, the most, weathering, form, of physical, considered.
4. known, gravity, pulling, is, towards, core, Earth's, everything.
5. deforestation, having, is, a terrible, on, the ecology, effect, of the region, reported.
6. this, mining, being, used, in, widely, method, assumed, is.

**VII. Переведите предложения на русский язык, обращая внимание на *независимый причастный оборот*:**

**Mustaqil qatnashgan gapga e'tibor berib, gaplarni o'zbek tiliga tarjima qiling:**

1. There are various methods of mining processes, surface mining being the most common one.
2. Water freezing, its volume increases by 9.2 per cent.
3. A rock with flat minerals being put under immense pressure, the minerals line up in layers.
4. The necessary results having been obtained, they stopped their investigation.
5. The core forms only 15 per cent of Earth's volume, the mantle occupying 84 percent.
6. The pressure on fossil fuels increasing, we have to search for other sources of energy.
7. The atmosphere is made up of 20 gases, oxygen and nitrogen being the main ones.
8. Weathering is a natural process, human activities speeding it up.

**VIII. Исправьте ошибки в предложениях со сложными причастными оборотами:**

**Sifatdoshli qo'shma gaplardagi xatolarni tuzating:**

1. We know weathering of rocks taken place over a period of time.
2. A gas being heating at constant pressure, work is done by the gas while expanding.

3. Water is considering playing the main role in physical weathering.
4. Weathering are found involving the disintegration and decomposition of rocks.
5. The equipment having been received, we could installing it in the laboratory.
6. I'd like to watch they working in the mine.
7. We suppose this rock has valuable properties.
8. Chemical weathering known causing the dissolution or alteration of minerals in rocks.

**IX. Используя причастие и сложные обороты с причастием, письменно переведите на русский язык следующие предложения:  
 Quyidagi gaplarni sifatdoshlarga e'tibor bergan holda o'zbek tiliga yozma tarjima qiling:**

1. Горные породы, которые сейчас исследуют, различаются по своим свойствам.
2. Окончив университет, он стал квалифицированным специалистом в области горного дела и экологии.
3. Вы можете наблюдать, как инженеры проводят эксперимент.
4. Обломочные осадочные породы состоят из более древних пород, подвергшихся выветриванию и эрозии.
5. После того, как новое оборудование было протестировано, его установили в лабораторию.
6. Выветривание – это естественный процесс, а деятельность человека ускоряет его.
7. Выяснилось, что химическое выветривание меняет молекулярную структуру горных пород и почвы.
8. Я слышал, как профессор рассказывал про образование осадочных пород.
9. Изучая процесс выветривания, студенты использовали различные источники информации.
10. Химические осадочные породы содержат минеральные кристаллы, состоящие из элементов, растворенных в воде.
11. Выветривание и эрозия – это геологические процессы, приводящие к образованию осадочных пород.
12. При переводе предложений на английский язык студенты использовали причастие.

1. Hozirgi vaqtda o'rganilayotgan jinslar bir-biridan ularning xususiyatlariga ko'ra farq qiladi.
2. Universitetni tamomlab, konchilik va ekologiya sohasida malakali mutaxassis bo'ldi.
3. Tajriba qilayotgan muhandislarni tomosha qilishingiz mumkin.
4. Qoldiq cho'kindi jinslar qadimiy jinslardan iborat bo'lib, ular yemirilish va ob-havo ta'siriga uchrashgan.
5. Yangi uskuna sinovdan o'tkazilgandan so'ng laboratoriyaga o'rnatildi.
6. Ob-havo tabiiy jarayon bo'lib, inson faoliyati uni tezlashtiradi.
7. Ma'lum bo'ldiki, kimyoviy nurash tog' jinslari va tuproqning molekulyar tuzilishini o'zgartiradi.
8. Men professorning cho'kindi jinslarning paydo bo'lishi haqida gapirganini eshitdim.
9. Ob-havo jarayonini o'rganishda talabalar turli xil ma'lumot manbalaridan foydalanganlar.
10. Kimyoviy cho'kindi jinslar suvda erigan elementlardan tashkil topgan mineral kristallarni o'z ichiga oladi.
11. Ob-havo va eroziya – cho'kindi jinslarning paydo bo'lishiga olib keladigan geologik jarayonlar.
12. Gaplarni ingliz tiliga tarjima qilishda o'quvchilar kesimni qo'llashgan.

# Lesson 9

## Mining

- I. **Переведите предложения на русский язык, обращая внимание на сказуемые в страдательном залоге:**

**Quyidagi gaplarni o'zbek tiliga tarjima qiling. Majhul nisbatdagi otlarga e'tibor bering:**

1. The landscape is constantly changed by weathering and erosion.
2. Weathering can be speeded up by human activities.
3. Sedimentary rocks were originally compacted by high pressure into metamorphic ones.
4. Rocks that undergo changes to form a new rock are referred to as metamorphic rocks.
5. The laboratory has been provided with modern equipment for carrying out experiments.
6. The mine will be reconstructed next year.
7. Underground and surface mines are equipped with new heavy machines.
8. Different methods of discovering deposits of useful minerals have been studied by prospecting.
9. Many research centres in geochemistry, biochemistry were established by outstanding mineralogist V. I. Vernadsky.
10. It should be noted that the role of water in the formation of metamorphic rocks is great.
11. Minerals that man applied in everyday life can be grouped into two broad categories: metals and non-metals.
12. Metamorphic rocks have been altered by high pressures, temperatures and chemical reactions.

- II. **Проанализируйте следующие предложения, найдите и определите функцию неличных форм глагола, переведите предложения на русский язык:**

**Quyidagi gaplarni tahlil qiling, sshaxsi noma'lum fe'llarni toping va vazifasini aniqlang. Gaplarni o'zbek tiliga tarjima qiling:**

1. On Earth there is no rock that is hard enough to resist weathering.

2. The rocks of the oceanic crust are said to consist mainly of silicate and magnesium.
3. A landscape affected by different types of mining can take a long time to recover.
4. Geology is a branch of natural science concerned with Earth and rocks of which it is composed.
5. Geologists consider weathering to be the first step in the production of soils.
6. Liquid water can easily seep into cracks and crevices in rock.
7. Igneous rocks are divided into two groups, intrusive or extrusive, depending upon where the molten rock solidifies.
8. Sedimentary rocks are formed are said to be formed from pre-existing rocks or pieces of once-living organisms.
9. Speaking about Earth we should mention that it consists of the crust, the mantle and the core.
10. Changes in temperature cause rock to expand and contract.
11. The mantle is proved to be in constant motion.
12. Please, read carefully the instructions to be referred to while making a report.
13. Earth's layers constantly interact with each other, the crust and the upper portion of the mantle being a part of a single geological unit called the lithosphere.
14. Having studied all the theoretical material, the students prepared a presentation on prospecting.
15. In order to form metamorphic rock, it is important for the existing rock to remain solid and not to melt.
16. Unfortunately mining can cause too much damage to the environment and biosphere and some species might be lost forever.
17. It is interesting and amazing to study the processes by which rocks change over time.
18. Geologists study the mineralogical composition of rocks to get insight into their history.
19. Carrying out structural analysis of the ore body scientists can detect its composition.
20. Formed around 4.6 billion years ago, Earth's crust solidifies just after the planet itself did.
21. The crust is made up of sedimentary, metamorphic and igneous rocks, the latter comprising up to 90 %.



22. This is a device to be applied for the qualitative analysis of the substance.
23. Prospecting is the first stage of the geological analysis followed by exploration.
24. Having mapped the potential deposit, the geologists continued to search for other possible mineral presence.

# Lesson 10

## Types of Mining

### Герундий Gerundi (The Gerund)

- I. **Образуйте от следующих глаголов формы герундия и переведите их на русский язык:**  
**Quyidagi fe'llarni gerundi shaklida yozing va o'zbek tiliga tarjima qiling:**

to mine – mining (*добыча, разработка / qazish, qazib olish*)

to drill, to blast, to dig, to handle, to sort, to load, to process, to grind, to separate, to refine, to smelt, to remove, to insert, to extract

- II. **Определите функцию герундия и переведите предложения на русский язык:**  
**Gerundining xususiyatini aniqlang va gaplarni o'zbek tiliga tarjima qiling:**

1. A generator is a machine for converting mechanical energy into electrical one.
2. Mining includes numerous techniques and methods.
3. Refining is the process of purifying natural resources.
4. After being extracted petroleum is submitted to refining.
5. Material handling involves sorting and loading mined materials to go to the processing site.
6. One of the main effects of heating is changing a solid body into liquid.
7. They are against conducting the experiment in which explosives are used.
8. Miners are always for discussing the ways of improving safety measures in underground mining.

9. The students have finished discussing the results of the conducted experiment.
10. This mining equipment needs servicing by specialists.
11. He insisted on using only reliable data in the report.
12. A thermometer is an instrument for measuring temperature.
13. In choosing the equipment type they considered the geological characteristics of the area.
14. In quarrying miners cut blocks of hard stone for ornamental purposes.
15. On handling the mined ore is turned at off-site plants into finished products.

**III. Замените инфинитив в скобках формой герундия и поставьте соответствующий предлог:**

**Qavsdagi infinitivni gerundi shakliga aylantiring va kerakli predlogni qo'ying:**

1. I think ... (*to take*) part in the conference on geology in May.
2. There is no possibility ... (*to carry out*) the experiment in two days.
3. The head of the mine insists ... (*to discuss*) extra safety measures to protect miners.
4. The group of students succeeded ... (*to obtain*) reliable results.
5. He is engaged ... (*to create*) a presentation on the problem discussed.
6. The negative effect of surface mining on the environment is worth ... (*to discuss*).
7. They are interested ... (*to study*) the process of chemical weathering.
8. I like the idea ... (*to organize*) a scientific conference on this important problem.
9. The volume of the extracted ore depends ... (*to choose*) the most economical and effective method of mining.
10. They gave ... (*to read*) the report as they had done it for many times and couldn't find the mistake.

**IV. Переведите следующие сочетания, обращая внимание на разницу в переводе причастия и герундия в функции определения:**

**Sifatdosh va gerundining tarjimasidagi farqqa e'tibor berib, quyidagi birikmalarni tarjima qiling:**

measuring instrument – measuring point; heating effect – heating device; drilling process – drilling mechanism; extracting factory – extracting technique; processing plant – processing result; operating characteristics – operating engine; cutting tool – cutting method; mining plant – mining method

**V. Переведите предложения, учитывая особенности перевода причастия и герундия в разных функциях:**

**Sifatdosh va gerundilarni tarjima qilishning o'ziga xos xususiyatlarini hisobga olgan holda gaplarni tarjima qiling:**

1. Each mining method depends on a number of factors.
2. A mineral mining plant extracts minerals through a range of processes.
3. Company's manufacturing centres meet the highest global and local manufacturing standards.
4. Using extensive experience and application knowledge the company continues to design and manufacture top-quality plants.
5. In using this specific equipment, the company has increased its output by 15 %.
6. The boiling point of water is 100 °C.
7. Boiling water is changing into steam.
8. Blasting means exploding or destroying something with explosives.
9. On blasting the mined rocks loosen and mining spaces are opened.
10. Blasting the overburden, the miners make ore excavation in opencasts easier and more productive.
11. Geologists find ore deposits by testing the chemistry of the rock and soil.
12. Testing the chemistry of the rock and soil geologists find ore deposits.

13. Extracting non-renewable resources is the main objective of mining industry.
14. Geological mapping and prospecting techniques, such as chemical analysis, core drilling and geophysical measurement must be employed before starting mineral extracting.
15. Prospecting for oil the geologists have discovered six commercial oil fields in the Gulf Coast region.

# Lesson 11

## Mining Equipment

### Сослагательное наклонение

#### Buyruq-istak mayli

#### *(The Subjunctive Mood)*

- I. **Переведите предложения, содержащие различные формы глагола в сослагательном наклонении:**  
**Buyruq-istak mayldagi fe'ning turli shakllarini o'z ichiga olgan gaplarni tarjima qiling:**

1. The scientific supervisor suggests that we should start the experiment at once.
2. It looked as if he weren't familiar with the problematic field of the conference.
3. It seemed as though he had spent all day in the laboratory.
4. Try to react as if nothing extraordinary had happened.
5. I wish I could help them in their research.
6. He only wished he could take part in the seminar on mining equipment.
7. I wish you were listening to my explanations more attentively.
8. It is necessary that the work be finished as soon as possible.
9. The lecturer recommended that we should take notes of the lecture.
10. She suggested that I consult the professor.
11. It's desirable that the students studying geology should come to the conference.
12. She insists that the measuring equipment be installed next week.
13. The students worked regularly in order that they might make a good progress.
14. He is going to the library in order he may prepare a good report on chemical weathering.
15. They lowered the pressure least it be too high.

**II. Переведите предложения, обращая внимание на формы сослагательного наклонения в разных типах предложений:**

**Har xil turdagi gaplardagi buyruq-istak mayli shakllariga e'tibor berib, jumalarni tarjima qiling:**

1. Many scientific problems might be solved based on Newton's laws of motion.
2. It is essential that all undesirable effects possible be minimized during the experiment.
3. He behaves as if he were given a chance to improve the situation.
4. Without the force of gravitation there would be no pressure in liquids.
5. The geologists suggest that extra examinations and measurements should be undertaken to define the location of the ore body.
6. He spoke as if he were an expert in the question of sedimentary rock formation.
7. Though his calculations might be very complex, a special mathematical program will do them in a few minutes.
8. It could be assumed that erosion caused by heat and pressure be of a local character.
9. To meet all the safety requirements it is necessary that mines be inspected regularly.
10. In order that this principle might be applied two very important conditions must be considered.
11. We suggested that his reclamation project be discussed in details.
12. Earth behaves as though it were a huge magnet creating great magnetic effect.
13. We suggested that the device be tested using different substances under various conditions.
14. It is important that safety measures be taken while mining underground.
15. The laboratory was equipped with up-to-date instruments and devices so that the students might carry out their research work.

## Условные предложения Shart ergash gap (*The Conditionals*)

- I. Сравните типы условных предложений и переведите предложения на русский язык:  
**Berilgan shart ergash gapli qo'shma gaplarni qiyoslang va o'zbek tiliga tarjima qiling:**

1. If the liquid in the vessel is heated, it expands.  
If the liquid in the vessel were heated, it would expand.  
If the liquid in the vessel had been heated, it would have expanded.
2. Water becomes contaminated if it takes on harmful concentrations of minerals and heavy metals.  
Water would become contaminated if it took on harmful concentrations of minerals and heavy metals.  
Water would have become contaminated if it had taken on harmful concentrations of minerals and heavy metals.
3. If a landscape is affected by mining, it can take a long time to recover.  
If a landscape were affected by mining, it could take a long time to recover.  
If a landscape had been affected by mining, it could have taken a long time to recover.
4. Extrusive igneous rocks will cool and crystallize at a much faster rate if they are exposed to air or water.  
Extrusive igneous rocks would cool and crystallize at a much faster rate if they were exposed to air or water.  
Extrusive igneous rocks would have cooled and crystallized at a much faster rate if they had been exposed to air or water.
5. If there is too much heat and pressure, the existing rock will not change into a metamorphic one.  
If there were too much heat and pressure, the existing rock would not change into a metamorphic one.  
If there had been too much heat and pressure, the existing rock would not have changed into a metamorphic one.



6. If metamorphic rocks are exposed on the surface of the earth, they will be subject to weathering processes and may break down into sediments.

If metamorphic rocks were exposed on the surface of the earth, they would be subject to weathering processes and might break down into sediments.

If metamorphic rocks had been exposed on the surface of the earth, they would have been subject to weathering processes and might have broken down into sediments.

**II. Соедините части предложения, образуя условные предложения:  
Gap qismlarini shart ergash gapli qo'shma gap hosil qilib bog'lang:**

- |   |  |
|---|--|
| 1. If minerals are located at shallow depths,                                     | a) the geologists would apply aerial prospecting.                                    |
| 2. If hydraulic mining weren't one of the most economic and advantageous methods, | b) if the classes of rocks weren't constantly being transformed from one to another. |
| 3. The crustal minerals wouldn't have been recycled during many millions of years | c) if they had made use of proper prospecting methods.                               |
| 4. If he had finished his research work on weathering in time,                    | d) they will be extracted by open-cast mining.                                       |
| 5. Sedimentary rocks are formed   | e) intrusive igneous rocks will be formed.   |
| 6. If magma cools and solidifies within small pockets in the planet's crust,      | f) its density would vary with pressure.   |
| 7. If conditions permitted,   | g) he would have taken part in the conference.                                       |
| 8. The geologists would have got necessary results                                | h) the rate of cooling would be lower.   |
| 9. If the earth was made of the same material from the surface downward,          | i) it wouldn't be so widely used for coal getting.                                   |
| 10. If the mass of magma were larger,   | j) if the lithification and chemical precipitation of sediments take place.          |

**III. Определите типы условных предложений и переведите их на русский язык:**

**Shart ergash gapli qo'shma gap turini aniqlang va o'zbek tiliga tarjima qiling:**

1. If temperatures drop low enough, the water will freeze and thus will expand.
2. The experiment would have been carried out last week if the device hadn't been out of order.
3. If dissolved materials precipitate from the solution, this will lead to the formation of chemical sedimentary rocks.
4. If you had changed the conditions of the experiment, you would have obtained more reliable results.
5. If he knew something about geological structure of this area, he would give some advice about choosing a mining site.
6. If carbonic acid seeps through limestone underground, it will open up huge cracks or hollow out vast networks of caves.
7. If they knew the values, they could finish the experiment.
8. If you had changed the conditions of the measurements at the very beginning, we would have got more correct results.
9. If helium were obtained only from the air, it would be a rare gas.
10. Providing we had got all the necessary equipment, we would have completed the tests last month.
11. In case you are interested in new methods of underground mining, you should visit the exhibition devoted to underground mining machinery.
12. If I had time, I would definitely help you with your presentation on metamorphic rocks.
13. If he had specialized skills in operating a haul truck, he would be offered a highly-paid job.
14. In case you want your mining project be successful, you should combine advanced technologies with time-proved mechanisms.
15. If continental crust hadn't had relatively low density, it wouldn't have risen higher on the mantle than oceanic crust.

**IV. Переведите следующие условные предложения. Объясните отсутствие в них союзов:**

**Quyidagi shart ergash gapli qo'shma gaplarni tarjima qiling. Ularda bog'lovchilarning yuqligini tushuntiring:**

1. Could mercury not expand under the action of heat, it would not be used for measuring temperatures.
2. Had the pipe a smaller cross-section, the flow of the liquid per second would be certainly less.
3. Had we increased the temperature during the experiment, the substance would have been transformed into a gas state.
4. Solidified the magma quickly, it wouldn't have enough time to melt the existing rocks.
5. Hadn't the device been broken, the experiment would have been carried out a week ago.
6. Had this liquid been heated, it would have expanded.
7. Conditions in the mantle are such that were the rock originally igneous, it would still undergo changes in the mantle.
8. Hadn't people learned to find, extract and process natural resources, what would they have to do?
9. Hadn't they tightened safety requirements at the mine, this could have led to catastrophic consequences.
10. Had they taken into account the recommendations of the environmentalists, the ore processing plant would have been built far from the city.

Контрольная работа № 1  
Nazorat ishi № 1

Lessons 1–4

I. Найдите в правой колонке русские эквиваленты следующих слов и словосочетаний:

O'ng ustundan quyidagi so'z va so'z birikmalarining o'zbekcha tarjimasini toping:

- |                                     |  |
|-------------------------------------|--|
| 1) to take examinations             | a) опыт                                    |
| 2) to be in-demand                  | tajriba                                    |
| 3) experience                       | b) трудоустройство                         |
| 4) employment                       | ish bilan band bo'lish                     |
| 5) summer industrial placement      | c) получать стипендию                      |
| 6) to receive scholarship           | stipendiya olish                           |
| 7) compulsory                       | d) сдавать экзамены                        |
| 8) to get mining education          | imtihon topshirish                         |
| 9) crust                            | e) получать горное образование             |
| 10) layer                           | konchilik sohasida ta'lim olish            |
| 11) intrusive igneous rocks         | f) кора (земли)                            |
| 12) fold belts                      | qobiq (yer)                                |
| 13) prospecting                     | g) быть востребованным                     |
| 14) extraction                      | talabgor bo'lmoq                           |
| 15) sample                          | h) поиск месторождений полезных ископаемых |
| 16) the search for mineral deposits | foydali qazilmalar qidiruvi                |
|                                     | i) складчатые пояса                        |
|                                     | qatlamli yer                               |
|                                     | j) обязательный                            |
|                                     | majburiy                                   |
|                                     | k) поисковые работы, разведка              |
|                                     | qidiruv ishlari                            |
|                                     | l) добыча                                  |
|                                     | konchilik                                  |

- m) слой  
qatlam
- n) образец, проба  
namuna
- o) интрузивные магматические породы  
intruziv magmatic jinslar
- p) летняя производственная практика  
yozgi amaliyot

**II. Из следующих слов составьте пары синонимов:  
Quyidagi so'zlardan juft sinonimlarni hosil qiling:**

- |               |                           |
|---------------|---------------------------|
| 1) branch     | a) semester               |
| 2) research   | b) term paper             |
| 3) term       | c) seam                   |
| 4) department | d) to come to the surface |
| 5) coursework | e) field                  |
| 6) layer      | f) mining                 |
| 7) to erupt   | g) exploration            |
| 8) extraction | h) investigation          |
| 9) survey     | i) influence              |
| 10) impact    | j) faculty                |

**III. Из следующих слов и словосочетаний составьте пары антонимов:  
Quyidagi so'z va so'z birikmalaridan juft antonimlarni hosil qiling:**

- |                               |                              |
|-------------------------------|------------------------------|
| 1) complicated                | a) to graduate               |
| 2) interesting                | b) to pay for study          |
| 3) to enter                   | c) inexperienced specialists |
| 4) to study for free          | d) inner shell               |
| 5) highly skilled specialists | e) solid                     |
| 6) intrusive                  | f) uninteresting             |
| 7) liquid                     | g) subsurface exploration    |
| 8) outer shell                | h) faulting                  |
| 9) surface exploration        | i) extrusive                 |
| 10) folding                   | j) simple                    |

**IV. Вместо пропусков вставьте *some, any, no* или их производные:  
Nuqtalar o'rniga *some, any, no* lardan mosini qo'ying:**

1. Could you lend me ... money, I don't have enough for my English book.
2. Our teacher of English didn't give us ... homework yesterday.
3. You look very tired. You can rest for ... time before the conference starts.
4. I don't have ... information about this deposit.
5. I have ... questions about the content of your term paper, but I do have ... questions about its structure.
6. Mr. Smith has ... questions that he wants to ask you.
7. Petrov left the classroom without saying ... to ... .
8. ... conditions must be met for the accuracy of the experiment.
9. I can't finish writing my essay. There is ... ink in my pen.
10. The question was so difficult that ... could answer it.

**V. Вместо пропусков вставьте *many / much / a lot of; few / little; a few / a little*:  
Nuqtalar o'rniga *many / much / a lot of; few / little; a few / a little* lardan mosini qo'ying:**

1. He earned ... money and could not live in a big city.
2. The teacher gives us ... time to prepare before a test.
3. We need ... boxes to put all these tools in.
4. There are only ... days left to hand in the reports.
5. I don't know how ... time I have to spend in the lab to complete the experiment.
6. There were too ... students at the conference.
7. How ... people are there in your office? At the moment there are ... employees in the office.
8. – Did ... students fail the examination? – ... students failed the exam.
9. The meeting with the outstanding scientist was over, but ... students remained in the hall.
10. This article contains ... information about the natural resources of our country.

**VI. Восстановите структуру предложений:  
Gap tuzilishini tiklang:**

1. usually, and, the, students, practical, attend, lectures, classes.
2. have, students, different, training, at, enterprises, practical.
3. graduates, receive, a, university, of, bachelor, diploma, of, science.
4. Smirnov, did, professor, not, to, conference, on, the, physics, of, because, his, come, illness.
5. does, the, when, academic, you, begin, in, year, country?

**VII. Поставьте глаголы в скобках в соответствующую временную форму (*Present, Past, Future Simple*):  
Qavslardagi fe'llarni to'g'ri zamon shaklida yozing (*Present, Past, Future Simple*):**

1. Last year, coal output in the mine ... (*to exceed*) coal output this year.
2. I think that the methods and techniques of exploration and extraction of minerals ... (*to change*) in the future.
3. The surface of the moon ... (*to reflect*) the sun's rays, so it (*to shine*) at night.
4. Scientists believe that dreams of mining in space soon ... (*to become*) a reality.
5. Convection currents in the mantle ... (*to drive*) plate tectonics.
6. In ancient times, people ... (*to believe*) that Earth was flat.

**VIII. Поставьте глаголы в скобках в соответствующую временную форму (*Present, Past, Future Continuous*):  
Qavslardagi fe'llarni to'g'ri zamon shaklida yozing (*Present, Past, Future Continuous*):**

1. Currently the management ... (*to take*) all possible measures to improve the ventilation of the mine.
2. Ecologists ... (*to discuss*) the impact of mining on the environment at an international conference for 6 hours yesterday.
3. They ... (*to solve*) many important tasks for the development of the potash industry in our country.
4. Over the next ten years, humanity ... (*to go through*) changes in life and work on a global scale.

5. Scientists constantly ... (*to observe*) the planets of the solar system.
6. Yesterday, students ... (*to take*) measurements on the area for two hours.

**IX. Поставьте глаголы в скобках в соответствующую временную форму (*Present, Past, Future Perfect*):**

**Qavslardagi fe'llarni to'g'ri zamon shaklida yozing (*Present, Past, Future Perfect*):**

1. Ecologists already ... (*to investigate*) the effects of potash mining on the environment.
2. The miners ... (*to reach*) the surface before a methane release occurred in the mine.
3. By 2030, humanity ... (*to consume*) 50 % more food and 30 % more water than today.
4. Specialists not yet ... (*to complete*) drawing detailed exploration data on the map.
5. By 2017, the country's environmental services ... (*to conduct*) a number of activities that significantly reduced harmful emissions into the atmosphere.
6. Scientists ... (*to complete*) the study of the area from space by the end of next week.

**X. Поставьте прилагательные в скобках в соответствующую степень сравнения:**

**Qavslardagi sifatlarni sifat darajalarining mosiga qo'ying:**

1. The ... (*hard*) the students study, the ... (*good*) they pass their exams.
2. Finding mineral deposits on the seafloor is ... (*difficult*) than on the surface.
3. Fuel resources are the ... (*important*) resources for the development of all economies.
4. Underground mining is ... (*dangerous*) than surface mining because of the high risk of accidents.
5. The ... (*large*) diamond quarry is in Yakutia.
6. The reserves of key minerals that meet the needs of humanity are getting ... (*little*) and ... (*little*) every year.



**Контрольная работа № 2**  
**Nazorat ishi № 2**

**Lesson 5–8**

I. Найдите в правой колонке русские эквиваленты следующих слов:  
O'ng ustundan quyidagi so'zlarning o'zbekcha tarjimasini toping:

- |                    |                               |
|--------------------|-------------------------------|
| 1) coarse          | a) выветривание               |
| 2) moisture        | ob-havo                       |
| 3) to crumble      | b) выходить на поверхность,   |
| 4) vulnerable      | обнажаться                    |
| 5) limestone       | yer yuzasiga chiqish          |
| 6) oil shale       | c) подвергаться, претерпевать |
| 7) mica            | boshdan kechirish             |
| 8) marble          | d) выравнивать, выстраивать   |
| 9) exfoliation     | to'g'irlash, tekislash        |
| 10) quenched       | e) затухающий, застывший      |
| 11) subterranean   | xiralashgan                   |
| 12) solidification | f) затвердевание              |
| 13) to align       | qattiqlashgan                 |
| 14) to undergo     | g) подземный                  |
| 15) weathering     | yer osti                      |
| 16) to expose      | h) крупный                    |
|                    | yirik                         |
|                    | i) влага                      |
|                    | namlilik                      |
|                    | j) крошиться                  |
|                    | maydalanmoq                   |
|                    | k) отслаивание                |
|                    | parchalanmoq                  |
|                    | l) мрамор                     |
|                    | marmar                        |
|                    | m) слюда                      |
|                    | slyuda                        |
|                    | n) уязвимый                   |
|                    | zaif                          |

- o) известняк  
ohaktosh
- p) горючий сланец  
neft slaneslari

**II. Из следующих слов составьте пары синонимов:  
Quyidagi so'zlardan juft sinonimlarni hosil qiling:**

- |                    |                     |
|--------------------|---------------------|
| 1) to contain      | a) surroundings     |
| 2) rate            | b) to withstand     |
| 3) to resist       | c) speed            |
| 4) environment     | d) to consist of    |
| 5) immense         | e) to contract      |
| 6) to be subjected | f) hard             |
| 7) to line up      | g) important        |
| 8) significant     | h) to align         |
| 9) solid           | i) to be exposed to |
| 10) to compress    | j) huge             |

**III. Из следующих слов составьте пары антонимов:  
Quyidagi so'zlardan juft antonimlarni hosil qiling:**

- |               |                |
|---------------|----------------|
| 1) to melt    | a) to destroy  |
| 2) to expand  | b) unimportant |
| 3) to rise    | c) solid       |
| 4) intense    | d) shortened   |
| 5) effective  | e) fine        |
| 6) coarse     | f) to solidify |
| 7) elongated  | g) to contract |
| 8) fluid      | h) to fall     |
| 9) vital      | i) moderate    |
| 10) to create | j) inefficient |

**IV. Выберите правильный вариант ответа в скобках:  
Qavsdagi to'g'ri javob variantini tanlang:**

1. Sandstone and mudstone are examples of (*clastic / chemical*) sedimentary rocks.

2. (*Metamorphosis / weathering*) is a broad term that indicates a change from one thing to another.
3. Granite is (*a sedimentary / an igneous*) rock.
4. In order to create a metamorphic rock the existing rock must be (*solid / soft*).
5. (*Non-foliated / foliated*) rocks do not contain the minerals that line up under pressure.
6. (*Metamorphic / igneous*) rocks are the most common type of rocks in the earth's surface.
7. The central cores of major mountain ranges consist of large bodies of (*intrusive / extrusive*) igneous rocks.
8. Mechanical weathering causes rocks (*to melt / to crumble*).

**V. Поставьте глаголы в скобках в соответствующую временную форму (*Passive Voice*):**

**Qavsdagi fe'llarni to'g'ri zamon shaklida qo'ying (*Passive Voice*):**

1. Hard biological materials like plants, shells and bones ... (*to compress*) into rocks.
2. I don't think the experiment ... (*to carry out*) once again.
3. The physical properties of igneous rocks ... (*to discuss*) right now.
4. This issue ... (*not to consider*) yet.
5. New samples ... (*to test*) by next week.
6. The investigation ... (*to carry out*) by the researchers next month.
7. The deposits of gold ... (*to find*) in the country recently.
8. The equipment ... (*to repair*) the whole day yesterday.
9. The formation of different types of rocks .... (*to speak about*) at the seminar yesterday.

**VI. Выберите верный вариант в скобках. Обратите внимание на основное правило согласования времен:**

**Qavsdagi to'g'ri javob variantini tanlang. Zamonlar moslashuvdagi asosiy qoidalarga e'tibor bering:**

1. I was told he (*has failed / had failed*) his exam in Physics (*yesterday / the day before*).
2. Scientists predicted that air pollution (*will cause / would cause*) the global warming of the climate.

3. He told me that he (*will be going / was going*) to enter BNUT.
4. The miners didn't know what (*causes / had caused*) the explosion.
5. We were all interested if the fault (*found / had been found*).
6. He knew that his groupmates (*are carrying out / were carrying out*) an experiment (*then / now*).
7. The engineers noticed that the new method (*is / was*) more efficient.

**VII. Выберите правильный вариант в скобках:**

**Qavsdagi to'g'ri javob variantini tanlang:**

1. The students (*mustn't / may*) break the safety rules during the experiment.
2. I (*can / had to*) work hard to pass my exams last term.
3. Foreign students (*can / must*) enter Belarusian higher educational institutions.
4. You (*were allowed to / should*) be as accurate as you can.
5. The engineers hope they (*must / will be allowed to*) continue their research next month.
6. The company (*can't / couldn't*) produce this type of machines a few years ago.
7. Mountains (*should / can*) be formed in three different ways.

**VIII. Выберите правильную форму инфинитива:**

**Infinitivning to'g'ri shaklini tanlang:**

1. The rocks (*to be studied / to have studied*) are intrusive igneous rocks.
2. The engineers have (*to be known / to know*) the best and the most economical materials (*to use / to be used*).
3. Three conditions should be met (*to form / to be formed*) a metamorphic rock.
4. I don't remember (*to be told / to tell*) the news before.
5. We are waiting for his research results (*to present / to be presented*) at the conference.
6. The voltage is high enough (*to be transmitted / to be transmitting*) over long distances.
7. The properties (*to study / to be studied*) may be of great value.

**IX. Восстановите структуру предложений со сложными инфинитивными оборотами:**

**Murakkab infinitivli gaplar tuzilishini to'g'ri taribda joylang:**

1. granite, intense, and, causes, heat, pressure, to turn, gneiss, into.
2. the temperature, rapidly, during, fall, the experiment, they, saw.
3. are, to contribute, considered, gases, warming, global, greenhouse, to.
4. to offer, advantages, this, seems, approach, some.
5. his, is, likely, he, to fail, exams.
6. the safety, the assistant, not, warned, to ignore, us, rules.

**X. Выберите правильную форму причастия:**

**Sifatdoshning to'g'ri shaklini tanlang:**

1. (*Having been exposed / exposing*) to weathering processes metamorphic rocks break down into sediments.
2. (*Having graduated / graduating*) from the University he joined a Master's course.
3. The conditions (*required / requiring*) to form a metamorphic rock are very specific.
4. The girl (*making / having made*) a report is a graduate of the faculty of mining and environmental engineering.
5. The minerals (*found / being found*) in the rock are dissolved in the rainwater.
6. Unless (*heated / heating*) this substance doesn't melt.
7. The issues (*being considered / considered*) now are of vital importance.

**XI. Исправьте ошибки в предложениях со сложными причастными оборотами:**

**Murakkab sifatdoshli gaplardagi xatolarni tuzating:**

1. I heard him being explained the way of how gold is extracted.
2. The assistant watched they carrying out the analysis of the data.
3. We know weathering of rocks taken place over a period of time.
4. Water is knowing play the main role in physical weathering.
5. The pressure on fossil fuels having increasing, we have to search for other sources of energy.
6. Earth's layers are stated being interacted with each other.
7. Open-pit is assumed widely using in mining.

## СПИСОК ЛИТЕРАТУРЫ ADABIYOTLAR RO'YHATI

1. Official Website of the Republic of Belarus [Электронный ресурс]. – Режим доступа: <https://www.belarus.by/en>. – Дата доступа: 19.01.2023.
2. MSc Mining Engineering in UK [Электронный ресурс]. – Режим доступа: <https://www.go-uk.in/masters-in-mining-engineering-in-uk>. – Дата доступа: 05.01.2023.
3. Mining engineering [Электронный ресурс]. – Режим доступа: <https://www.exeter.ac.uk/media/universityofexeter/webteam/shared/undergraduate/pdfs/Mining%20Engineering.pdf>. – Дата доступа: 10.02.2023.
4. Earth [Электронный ресурс]. – Режим доступа: <https://education.nationalgeographic.org/resource/earth/>. – Дата доступа: 01.02.2023.
5. Why is the earth's core so hot? And how do scientists measure its temperature? [Электронный ресурс]. – Режим доступа: <https://www.scientificamerican.com/article/why-is-the-earths-core-so/>. – Дата доступа: 19.01.2023.
6. A short note on the mantle [Электронный ресурс]. – Режим доступа: <https://unacademy.com/content/railway-exam/study-material/geography/a-short-note-on-the-mantle/>. – Дата доступа: 19.01.2023.
7. Phases of mineral exploration and production [Электронный ресурс]. – Режим доступа: <https://www.nzpam.govt.nz/nz-industry/nz-minerals/phases/>. – Дата доступа: 24.01.2023.
8. Sedimentary rock [Электронный ресурс]. – Режим доступа: <https://www.britannica.com/science/sedimentary-rock>. – Дата доступа: 19.02.2023.
9. Metamorphic Rocks [Электронный ресурс]. – Режим доступа: <https://volcano.oregonstate.edu/metamorphic-rocks-lesson-14>. – Дата доступа: 19.02.2023.
10. Igneous Rocks: How Are They Formed? [Электронный ресурс]. – Режим доступа: <https://www.universetoday.com/82009/how-are-igneous-rocks-formed/>. – Дата доступа: 19.02.2023.
11. Weathering [Электронный ресурс]. – Режим доступа: <https://education.nationalgeographic.org/resource/weathering/>. – Дата доступа: 10.01.2023.

12. What is Erosion? [Электронный ресурс]. – Режим доступа: <https://passel2.unl.edu/view/lesson/5653c03d7cee/3>. – Дата доступа: 10.01.2023.

13. A Guide to the Four Main Methods of Mining [Электронный ресурс]. – Режим доступа: <https://www.azom.com/article.aspx?ArticleID=18547>. – Дата доступа: 05.02.2023.

14. 7 Reasons Why The Mining Industry Is Still Critical [Электронный ресурс]. – Режим доступа: <https://stark-resources.com/7-reasons-why-the-mining-industry-is-still-critical/>. – Дата доступа: 05.02.2023.

15. Common Types of Mining Equipment Used in the Mining Industry [Электронный ресурс]. – Режим доступа: <https://www.cashmanequipment.com/about/the-dirt-blog/common-types-of-mining-equipment-used>. – Дата доступа: 12.02.2023.

16. Digging deeper: Mining methods explained [Электронный ресурс]. – Режим доступа: <https://www.angloamerican.com/futuresmart/stories/our-industry/mining-explained/digging-deeper-mining-methods-explained>. – Дата доступа: 16.02.2023.

17. 3 General Types of Mining Equipment [Электронный ресурс]. – Режим доступа: <https://www.copelandintl.com/blog/construction/3-general-types-of-mining-equipment/>. – Дата доступа: 01.03.2023.

18. Renewable and Nonrenewable Resources [Электронный ресурс]. – Режим доступа: <https://extension.psu.edu/renewable-and-nonrenewable-resources>. – Дата доступа: 06.03.2023.

## СОДЕРЖАНИЕ / MUNDARIJA

<b>Lesson 1 Higher Education in Great Britain</b>	
Имя существительное / Ot so'z turkumi	3
Артикль / Artikllar	6
Местоимение / Olmosh	8
<b>Lesson 2 Higher Engineering Education in Belarus</b>	
Глагол <i>to be</i> . Формы и функции / <i>To be</i> fe'li. Uning vazifalari va qo'llanilishi	16
Глагол <i>to have</i> . Формы и функции / <i>To have</i> fe'lining shakli va qo'llanilishi	17
Глагол <i>to do</i> . Формы и функции / <i>To do</i> fe'lining shakli va qo'llanilishi	18
Основные формы глагола. Личные и неличные формы глагола / Fe'ning asosiy shakllari. Fe'ning aniq va noaniq shakllari	18
Структура повествовательного предложения / Darak gaplarning tuzilishi	19
Структура вопросительного предложения / So'roq gaplarning tuzilishi	21
Конструкция <i>there is / are / There is / are</i> konstruksiyasi	22
<b>Lesson 3 Earth's Structure</b>	
Предлог / Predlog	24
Простое (неопределенное) время / Oddiy (noaniq) vaqt	28
Продолженное время / Uzoq vaqt	33
<b>Lesson 4 Prospecting and Exploration Activities</b>	
Совершенное время / Mukammal vaqt	37
Прилагательное, наречие / Sifat, ravish	41
<b>Lesson 5 Sedimentary Rocks</b>	
Страдательный Залог / Majhul nisbat	49
Согласование времен. Прямая и косвенная речь / Zamonlar moslashuvi. Ko'chirma va o'zlashtirma gaplar	55
<b>Lesson 6 Metamorphic Rocks</b>	
Модальные глаголы / Modal fe'llar	61
Числительное / Son	65
Многофункциональные слова / Ko'p funksiyali so'zlar	67



<b>Lesson 7 Igneous Rocks</b>	
Инфинитив / Infinitiv .....	69
Сложные обороты с инфинитивом / Infinitivli murakkab Aylanmalar .....	72
<b>Lesson 8 Weathering of Rocks</b>	
Причастие / Sifatdosh.....	77
Сложные обороты с причастием / Sifatdoshli qo'shma gaplar.....	80
<b>Lesson 9 Mining</b> .....	86
<b>Lesson 10 Types of Mining</b>	
Герундий / Gerundi .....	89
<b>Lesson 11 Mining Equipment</b>	
Сослагательное наклонение / Buyruq-istak mayli .....	93
Условные предложения / Shart ergash gap.....	95
<b>Приложение 1 / Gap 1</b>	
Контрольная работа № 1 / Nazorat ishi № 1.....	99
Контрольная работа № 2 / Nazorat ishi № 2.....	104
<b>Список литературы / Adabiyotlar ro'yhati</b> .....	109

Учебное издание

**ЯЛОВИК** Елена Ивановна  
**ЛАПКО** Олеся Александровна  
**БЕЗНИС** Юлия Вячеславовна и др.

**PRACTICAL ENGLISH GRAMMAR  
FOR MINING ENGINEERING STUDENTS**

Пособие

для студентов специальности 7-07-0714-01 «Машины и оборудование  
для горнодобывающих производств. Горная электромеханика»  
и 7-07-0724-01 «Разработка месторождений  
полезных ископаемых»

Qo'llanma

Tog'-kon sanoati kon mashinalari va uskunalari. Kon elektromexanikasi  
(7-07-0714-01), Foydali qazilmalar konlarini o'zlashtirish  
(7-07-0724-01) mutaxassisliklari talabalari uchun mo'ljallangan

*На русском и узбекском языках*

Редактор *Н. Ю. Казакова*  
Компьютерная верстка *Н. А. Школьниковой*

Подписано в печать 22.07.2024. Формат 60×84 <sup>1</sup>/<sub>16</sub>. Бумага офсетная. Ризография.  
Усл. печ. л. 6,57. Уч.-изд. л. 4,10. Тираж 250. Заказ 1027.

Издатель и полиграфическое исполнение: Белорусский национальный технический университет.  
Свидетельство о государственной регистрации издателя, изготовителя, распространителя  
печатных изданий № 1/173 от 12.02.2014. Пр. Независимости, 65. 220013, г. Минск.

---