МИНИСТЕРСТВО ОБРАЗОВАНИЯ И НАУКИ РОССИЙСКОЙ ФЕДЕРАЦИИ

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Учебно-методическое пособие

«Studying Biology at University»

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Пояснительная записка

Учебно-методическое пособие “Studying Biology at University” предназначается для студентов 1-2 курсов биологических специальностей университетов. Его целью является формирование иноязычной коммуникативной компетенции в сфере будущей профессиональной деятельности студентов-биологов, что предполагает успешное овладение английским языком как средством их дальнейшего профессионального развития.

Предлагаемое учебно-методическое пособие ориентировано на создание условий для приобретения студентами опыта использования языковых знаний и умений в различных ситуациях межличностного и профессионального общения; развития творческого подхода к решению профессиональных задач; формирования умений самостоятельной работы; активного использования современных информационных технологий; коллективной познавательной деятельности; самоконтроля и оценки усвоения формируемых навыков и умений.

В пособии вводятся и закрепляются терминологические единицы, характерные для биологических специальностей, развиваются и совершенствуются коммуникативные навыки и стратегии автономного обучения.

Учебно-методическое пособие также содержит приложение, которое включает текстовую основу для прослушивания (script).

Типология используемых в пособии заданий разнообразна и представлена следующими рубриками:

Lead in – включает задания, имеющие своей целью выяснить фоновые знания, мнения, суждения студентов по обсуждаемой тематике.

Reading – предлагает задания на развитие навыков различных видов чтения, извлечение информации, понимание структуры, организации и содержания текста.

Listening – представляет собой аудиозапись монолога профессиональной

направленности и сопровождается заданиями, нацеленными на извлечение конкретной информации, развитие навыков конспектирования, переработки и передачи информации на английском языке.

Focus on language – акцентирует внимание на определенных грамматических аспектах, ключевых словах и словосочетаниях, включает задания на расширение общего и терминологического словарного запаса студентов.

Discuss – предлагает вопросы, позволяющие выявить отношение к прочитанному материалу и соотнести его с собственными знаниями, интересами и опытом.

Get real – предполагает использование умений поиска информации на интернет сайтах и в научно-популярных публикациях в условиях, максимально приближенных к ситуациям реальной учебной деятельности.

Speaking – предлагает задания, направленные на формирование умений диалогического, а также неподготовленного и подготовленного монологического высказывания.

Writing – предлагает различные задания, направленные на развитие умения фиксировать информацию на английском языке с использованием различных форм записи.

Summarizing – имеет своей целью формирование навыков аннотирования научно-популярных русскоязычных текстов на английском языке.

In the Realm of Science – включает дополнительный справочный материал, отражающий специфику естественнонаучных специальностей (общепринятые сокращения, символы и т.д.).

В данное пособие включены также специальные рубрики:

Study help – содержит полезные советы по использованию стратегий изучения английского языка, а также рациональные приемы работы над лексическим и грамматическим материалом и т.д.

Progress Monitoring – представляет собой задание, стимулирующее рефлексивную самооценку процесса изучения английского языка и позволяющее студентам последовательно и адекватно отслеживать свои учебные достижения, успешность продвижения в овладении иностранным языком.

Progress Test – представляет собой тест рубежного контроля, включающий задания на проверку, осмысление и закрепление изученного материала.

Учебно-методическое пособие разработано с использованием аутентичных материалов, основными источниками которых являются британские и американские академические и научно-популярные издания, Интернет, проспекты ведущих университетов англоязычных стран, энциклопедии, словари. При подборе учебных материалов учитывались такие характеристики, как новизна информации, ее познавательность, соответствие учебным и профессиональным потребностям студентов.

Для осуществления самооценки предполагается использование балльно-рейтинговой системы контроля знаний. Пособие включает таблицу итогового контроля, который предполагает полное и правильное выполнение ключевых заданий и теста рубежного. Выполнение заданий рассчитывается в баллах и оценивается по следующей шкале:

- оценка «5» 100-85%
- оценка «4» 84-70%
- оценка «3» 69-50%
- оценка «2» 49% и менее

Studying Biology at University

We were making the first step out of the age of chemistry and physics, and into the age of biology.

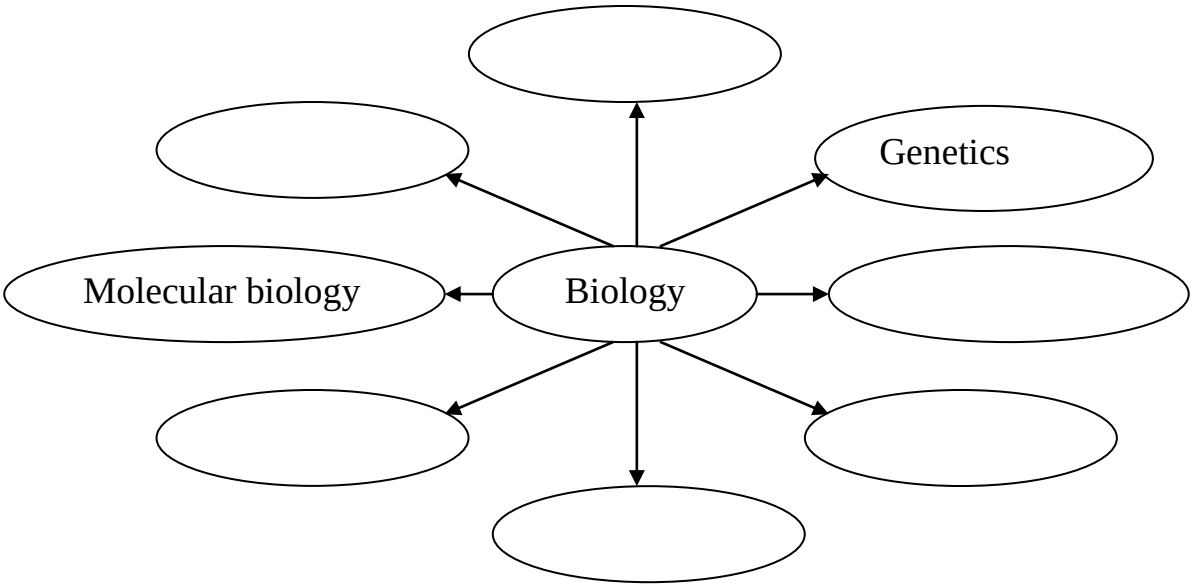
Jeremy Rifkin

Learning Objectives:

- to learn the terms connected with the fields of Biology
- to revisit noun phrases
- to revisit frequently used verb tenses
- to use signal words to follow the organizational pattern of the text
- to make an outline of the text
- to write a Student Profile

Lead in

1. What is biology? What does it study? Brainstorm 10 words and phrases that biology deals with, e.g. ***cell, heredity, virus,*** etc.
2. Look at the diagram in which some of the major fields in biology are given.
   Work in teams and complete the diagram with the names of the main branches and subdivisions of biology.



Reading

1. Answer the questions.

- Was biology your favourite subject at school? Why? /Why not?
  - Did you have any problems studying biology? What were they?
  - Do you agree that biology is one of the most challenging subjects at high school? Why? / Why not?
  - Why did you choose to do a biology course at university? Did anyone influence your decision?

2. Read the text and make a list of the reasons for doing a course in biology.

WHY STUDY BIOLOGY?

Biology is the science of life. It is the scientific exploration of the vast and diverse world of living organisms; an exploration that has greatly expanded within the last decades revealing a wealth of knowledge about ourselves and about the millions of other organisms with whom we share this planet Earth. Today, biological research, worldwide, includes an almost infinite spectrum of studies from molecules to landscapes, from human health and disease to loss of biodiversity and environmental quality. It includes a lot of subdisciplines, both fundamental and applied such as ecology, evolutionary biology, botany, zoology, genetics, microbiology, molecular biology, etc. Obviously, there are a number of reasons why it is a good idea to do a course in biology.

Life poses many challenges, and in the 21st century it is the biologist who will be in the forefront of such difficult, intellectual problems, as understanding the most elemental building blocks of the mechanisms of life, the mechanisms of memory and of learning, the molecular basis of embryonic development, and the rules that help to predict the behavior of the environment.

Biology also lies at the heart of major social problems that face the human race in the coming decade, such as sensible management of the environment and the effective control of human populations, the disposal of municipal and industrial wastes and the development of renewable resources. It is vital that educated people understand the contributions that biological sciences have made and will continue to make for the future welfare of human beings.

Apart from that, biology offers many career opportunities. Every day new discoveries are being made in bio-medical fields, immunology, genetic engineering, cell biology, ecology, and in many other fields of the biological sciences. Highly educated

and skilled individuals will be needed to continue this pace of exploration. As a working biologist you may find yourself serving the medical needs of people; working with fish and wildlife; conserving and restoring habitat; teaching biology; or discovering new facts through research or writing about biological aspects of plants, animals and microbes. Anyway, there will be new areas of employment that require solid knowledge in biology as new fields emerge in the future. Many commonly used expressions in everyday language come from biology, including genetically modified, guinea pig, placebo, side effect, eco-friendly, etc.

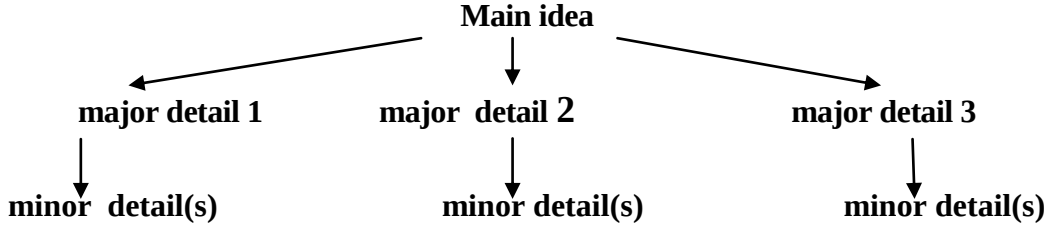
Moreover, nowadays biology also is an excellent foundation for students planning to attend medical, dental, veterinary, physical therapy, physician's assistant or optometry schools.

(Adapted from the Internet sites)

3. Read the text again and highlight the signal words that introduce supporting details. Make use of the Study help box.

Study help: ***Getting ready to read***

Any reading selection has a particular organizational pattern. It has a topic –the name, theme, or general subject, e.g., a title or heading. The topic helps to find out the main idea of the passage which can be found in the beginning, middle, or end of the passage. There are also supporting details. These are the sentences in a passage that explain the different points of the main idea. There are two types of supporting details: major and minor. Major details directly develop the main idea; minor details develop major details. Supporting details provide the reader with additional information, e.g. data, statistics, steps in a process and examples. Supporting details are usually introduced by signal words, such as, *also, however, moreover* (major details); *for example, that is* (minor details), etc.



4. Complete the chart for the text to sum up the information from the text. Use the chart as an outline.

Topic	
Main idea	
Major detail(s)	
Minor detail(s)	

5. Match the verbs in **A** with the nouns in **B** to make collocations used in the text.

A	**B**
to do	knowledge
to share	people's needs
to pose	problems
to reveal	behaviour
to serve	a course in biology
to predict	challenges
to face	the planet

6. Complete the phrases from the text with the prepositions if necessary. Make up sentences of your own with these phrases.

1) a field …*of*… science
2) to make a contribution .... the welfare
3) a wealth …… knowledge
4) to be …… the forefront
5) an area …… employment
6) to require …… solid knowledge
7) a loss …… biodiversity
8) to lie ……. the heart of the problem
9) a spectrum …… studies

Discuss

- Which reasons described in the text motivated you to choose the Biology faculty?
- Would you add any other reasons to the list you have made? What are they?
- What other everyday language expressions that come from biology do you know? What particular fields of biology do they come from?

Focus on language

Study help
It is important that you are able to distinguish between the **terms** (e.g. organism) and **general science words** (e.g. experiment). Make sure you note down such words in your notebook throughout your course. Keep it up to date. ✍

1. Practice the pronunciation of these words. Which of them are terms and which are general science words? Check the meaning of the words in a dictionary.

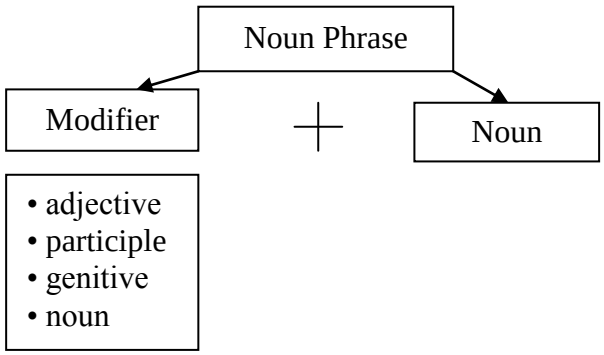
nucleus / nuclei	['nju:kliəs / 'nju:kliai]
cell	[sel]
cellular	['seljələ(r)]
concept	['konsept]
behaviour	[bɪ'heɪvjə(r)]
embryo	['embriəʊ]
embryonic	[ˌembri'ɔnɪk]
mechanism	['mekənɪzəm]
molecule	['mɔlɪkju:l]
molecular	[mə'lekjələ(r)]

2. Read the sentence and translate the phrases **in bold** into your native language. Make use of the Grammar box below.

- *It is vital that **educated people** understand the contributions that **biological sciences** will continue to make for the future welfare of **human beings.***

Noun Phrases

Study the diagram describing the components of a noun phrases.



innovative technology – technology that is new and different *(adjective)*
living organisms – organisms that are alive *(participle)*
professor's lectures – lectures given by the professor *(genitive)*
cell biology – biology that studies cells *(noun)*

3. Look back in the text. Write out the noun phrases that follow the models in the box. Translate the noun phrases into your native language.

   Example: embryonic development – развитие эмбриона, эмбриональное развитие

Speaking

Work in teams. Match the field of biology with the areas of its application. Check as a class. Follow one of the models.

- *Astrobiology **serves / tries to understand** biological, planetary and cosmic phenomena.*

- *Astrobiology **deals with understanding** biological, planetary and cosmic phenomena.*
- *Astrobiology **studies / explores** biological, planetary and cosmic phenomena.*

***NB*!** Each area of application can sometimes deal with more than one field of biology.

Fields of Biology	***Areas of application***
1) astrobiology	*a) to understand the behaviour of more than one individual*
2) ethology	*b) to study how animals communicate*
3) histology	*c) to study microbes and viruses*
4) cytology	*d) to study cell interaction and environmental dangers to cells*
5) zoology	*e) to grow disease-resistant crops*
6) botany	*f) to forecast possibility of hereditary illnesses*
7) microbiology	*g) to observe environmental changes*
8) ecology	*h) to solve crimes*
9) evolutionary biology	*i) to understand how organ systems function and interact*
10) genetics	*j) to learn how life begins and evolves*
11) neuroscience	*k) to accurately diagnose cancer and other life-threatening diseases*
12) anatomy	*l) to study disorders of the nervous system*
13) developmental biology	*m) to understand biological, planetary and cosmic phenomena*
14) molecular biology	*n) to study the ability of some plants to absorb contaminants found in their environments*

o) to see how heredity works

p) to study how the human brain function

Writing

Make use of the models in the **Study Help** box to write 6-8 sentences of your own about your favourite branches of biology and their application. Read out your sentences to the class.

Study help: ***Paraphrasing***

We can use various speech patterns when we need to speak about similar things but do not want to be repetitive.

- Without ecology ***observation*** *(noun)* of environmental changes would be impossible.
- Ecology makes it possible ***to observe*** *(verb)* environmental changes on the Earth.
- The knowledge of ecology is required for ***observing*** *(gerund)* environmental changes.

Listening

1. Match the types of university courses in **A** with their definitions in **B**.

A	**B**
1) core	a) a course made up of different subject blocks which deal with particular areas of interest and may be delivered using a range of lectures, seminars and/or workshops;
2) elective	b) a compulsory or required course which is essential for an academic degree;
3) modular	c) a course chosen within the specialist subjects or in an associated field that provides students with multi-disciplinary approach as well as professional qualifications;

4) optional	d) a course chosen by students from completely different subject areas in order to broaden their academic interests;

2. Match the subject areas with the topics.

Subject areas	*Topics*
1) Molecular Biology	a) The origin of species
	b) Infection and immunity
2) Genes and Genomes	c) Effect of pollution on plant health
	d) Mendel's laws of segregation and independent assortment
3) Evolution	e) Hypothesis testing
	f) Membrane transport
4) Environmental Physiology	g) The Periodic Table
	h) Antibiotics and Resistance
5) Research methods	i) Cellular dynamics
	j) Experimental design and data analysis
6) Microbes and Man	k) Drought resistance and GM
	l) Nature of biological variation
	m) DNA structure and replication
7) Cell Biology	n) Radioactivity

3. Listen to Sophie Forrest who is describing her university course in Biological Sciences. Answer these questions.
   a) Which of the subjects listed in task 2 does Sophie mention?
   b) Which additional subjects does she study?

c) Why electives in modern languages are popular with the biology students?
d) What are the requirements for all BSc students in their final year at university?
e) Why is it convenient for students to have a common first year in all of the biology courses?

Discuss

- Name the course(s) in biology you are doing this semester at university? Are they theoretical or practical?
- Which course do you like most? Why?
- Which new courses are you going to take next semester? What topics do they cover?
- Would you be interested in doing a professional training year (what subject area and what country)?

Get real

Go online. Study the website or the prospectus of your university and find information about your faculty. Write a description of the biology course you are doing. Be sure to include

- aims of the course
- course description
- departments and staff
- methods of teaching
- frequency of classes
- methods of assessment

Reading

Read the student profile and take notes under the headings:

- reasons for studying biology
- reasons to choose the university
- study and research experience
- achievements
- leisure time activities

Study help: Student profile
A profile is a short article about someone, a description of a person that contains all the details that someone needs to know this person better.

Student Profile

Behrad Derakshan

When it came to choosing A Levels I was quite sure which route I wanted to take. I knew I definitely wanted to do biology, just because it was a subject I was good at, and it interested me more than most subjects. It gives you a solid knowledge of all that we see, touch and breathe.

Why the University of Surrey? It seemed the ideal choice of university for me. Being a campus university means that it's a great place to meet people, play sports, and the services provided on campus mean you really have everything you need on your doorstep. The research facilities at the University are excellent, there are always computers available on campus 24 hours a day and the libraries are easy to work in.

Besides, the diversity of the programme enabled me to gain insight into different scientific fields such as pharmacology, molecular biology and genetics, immunology, microbiology and physiology. As a result of this, I was able to decide where in this vast field my specific interests lie. During my first year on the Biology

course I realised that I really enjoyed the biochemistry module more than any of the others, so I decided to switch to BSc Biochemistry for Year 2. So, next years I had different things: lectures, practicals, tutorials and all sorts of things like that.

I also spent 14 months in New York City where I was working in a research laboratory at one of the best clinical and medical research centres at Cornell University's Pharmacology Department, which has been taking placement students* from Surrey for years. I was given my own research project and was responsible for all of my own experiments. Working at Cornell was an amazing experience. It confirmed my interest in science and allowed me to interact with many interesting people. It provided me with an invaluable opportunity to gain knowledge of current research and improve my communication skills, as well as opening many doors for my career in science. I am also very happy to have been offered the chance to do a PhD. It feels good.

Recently I have been elected as the Editor for the Student newspaper "Bare Facts". At the moment I am working really hard to release the next issue.

Well, even though I have a lot of work to do, I do feel it's important to relax and go out and have a good time. I spend a lot of time doing sports. I'm actually a member of the soccer club and this year, I'm their captain. We train twice a week in the university Sports Centre. We also travel around other universities, which is a really good chance to get to know a lot of people and have a look round their university and see how it compares with ours.

(Adapted from the Internet sites)

* студенты-практиканты

Focus on language

1. Look back in the profile. Make a list of verb tenses used in the portfolio. Why does the author use these particular tenses?

2. Join the beginnings with the ends to make rules about the usage of Present Simple, Present Progressive, Present Perfect, Present Perfect Progressive, Past Simple and Past Progressive.

Present Simple Present Progressive Past Simple Past Progressive Present Perfect Present Perfect Progressive	is used to	• to talk about an activity or situation that began and ended at a particular time in the past • to speak about an activity that began in the past, continue to the present and is still in the process • for the event that started in the past and has been recently completed • to describe activities that are happening at or around the time of speaking • to speak about permanent situations and routines • to describe an activity or event in progress at some time in the past

3. Complete the sentences with the correct tenses.
   a) At the moment Graham also (to do) a course in scientific journalism and he (to seem) to enjoy it greatly.
   b) One of the things I like about the atmosphere at college (to be) that students (to study) across the disciplines.
   c) Since arriving in Manchester to study biology, Helen (not, to look back). She (to be) on the microbiological subgroup and (to study) molecular biology techniques.

d) Last year when I (not, to work) on my project during industrial placement, I (to carry out) routine lab work.
e) Since being at Cornell, Behrad (to enjoy) everything about doing research!
f) Helen (to talk) about that project for ages now.
g) My friend (to decide) to choose the career in science and (to plan) to take the Ph.D. course in Physiology at the University of Leeds next autumn.
h) Many of the university lecturers (to be involved) in research, and they (to share) the details of their work with their students.

Writing

Use the Student Profile on pages 17-18 as a model to write your personal Biology Student Profile in 150-200 words. Make use of the guidelines.

Paragraph 1

- Your education background and reasons for choosing a course in biology

Paragraph 2

- Biology course duration at your university
- The biology course you are doing this semester
- Your study experience and achievements
- Compulsory and optional courses you are going to take next year

Paragraph 3

- Your favourite leisure time activities, how they contribute to your student life.

Speaking

Prepare a short talk based on your profile to give in class. Be ready to answer your fellow students' questions about your studies in the Biology Department and your student life.

Summarizing

1. Read the text below to find the Russian equivalents to these English word combinations.
   1) to learn laws and formulae
   2) to attend lectures and seminars
   3) to do laboratory work
   4) to gain solid knowledge of …
   5) to provide practical knowledge of experimental methods
   6) to evaluate reliability of results
   7) to gain professional skills
   8) a theorist/experimentalist
   9) the ability to pose questions and solve complicated problems
   10) to make someone a real expert in various spheres of life

Биология – наука о жизни, которая охватывает все ее аспекты в частности, структуру, функционирование, рост, происхождение, эволюцию и распределение живых организмов на Земле, классифицирует и описывает живые существа, происхождение их видов, взаимодействие между собой и с окружающей средой. При ее изучении важно не только познать определенные законы и формулы, но также необходимо научиться думать. Например, посещая лекции и семинарские занятия, студенты овладевают фундаментальными знаниями о законах жизни на земле, а лабораторные работы позволяют студентам овладеть на практике экспериментальными методами этого познания. Выполняя лабораторные работы, студентам необходимо не только грамотно пользоваться лабораторным оборудованием и правильно проводить эксперименты, но и уметь извлекать из них полезные результаты и оценивать степень их достоверности. Именно в ходе такой работы студент приобретает профессиональные навыки, необходимые не только будущему специалисту-практику, но и исследователю-экспериментатору.

В последние годы все большая часть выпускников биологических факультетов находит себя в других сферах человеческой деятельности, тесно связанных с биологией. Именно всесторонняя подготовка, умение поднимать и решать сложнейшие задачи, анализировать и оценивать результаты делают их настоящими специалистами, которые получают увлекательную и стоящую работу.

Add new vocabulary to your vocabulary notebook. ✍

2. Read the text again and summarize it in English. Make use of the phrases in the box.

Phrases for summarizing

The article discusses / considers…	The article informs / presents information about…
It is reported /said /stated that…	It is pointed out / claimed that…

Actually; In fact; In particular; For example; Also; Moreover; etc.

In the Realm of Science

1. Words of the Latin origin are widely used in scientific papers and other publications. Read and remember some of the more commonly used Latin words.

i.e (id est)	that is, in other words
e.g. (exempli gratia)	for example
etc. (et cetera)	and so on
et al. (et alii)	and the others
NB! (nota bene)	take special note
vice versa	in reverse order from that stated
vs. (versus)	against

v.s. (vide super)	see above
in vitro	taking place outside a living body
in vivo	taking place in a living body
in silico	"performed on computer or via computer simulation"
de novo	starting from the beginning; anew

2. Remember how to pronounce the names of some fields of biology.

neuroscience	['njʊrəʊsaɪəns]
biophysics	[ˌbaiəu'fiziks]
biochemistry	[ˌbaiəu'kemɪstri]
astrobiology	[ˌæstrəʊbaɪ'ɔlədʒi]
microbiology	[ˌmaɪkrəʊbaɪ'ɔlədʒi]
cellular biology	['seljələ(r) baɪ'ɔlədʒi]
immunology	[ˌɪmjʊ'nɔlədʒi]
molecular biology	[mə'lekjələ(r) baɪ'ɔlədʒi]
botany	['bɔtəni]
zoology	[zəʊ'ɔlədʒi]
genetics	[dʒə'netɪks]
biology	[baɪ'ɔlədʒi]
ethology	[eΘ'ɔlədʒi]
histology	[hɪ'stɔlədʒi]
cytology	[saɪ'tɔlədʒi]
physiology	[ˌfɪzi'ɔlədʒi]

Progress Monitoring

You have worked on the vocabulary on the topic “Studying Biology”. Tick (***V***) the points you are confident about and cross (***X***) the ones you need to revise.

1. to do a course / laboratory work
2. to gain / get / earn qualification / degree
3. to get a first-hand experience of research
4. to gain insight into different scientific fields
5. a real expert
6. to take part in a field course
7. to improve communication skills
8. to pose challenges / questions
9. to be at the forefront
10. to undertake professional training
11. to share / require knowledge of current research
12. to open many doors for a career in science
13. to take compulsory / optional modules / courses
14. to confirm one's interest in science
15. to take part in a field course
16. to face / solve problems
17. to learn laws and formulae
18. hands-on experience
19. to understand (biological) concepts
20. to attend lectures and seminars

Progress Test

1. Cross out the odd word.
   a) a wealth of, a lot of, a number of, a large amount of
   b) lectures, electives, seminars, tutorials
   c) molecules, cells, genes, microorganisms
   d) concept, idea, skills, theory
   e) ethology, evolution, heredity, resistance

f) to earn, to gain, to develop, to get

2. Give English equivalents to the following Russian word combinations.
   a) учить формулы и законы
   b) ставить и решать сложные задачи
   c) экспериментальные методы
   d) получать ценный практический опыт
   e) оценивать степень достоверности результатов
   f) приобретать профессиональные навыки
   g) стать настоящим специалистом
   h) получать прочные знания
   i) глубокое осознание биологических понятий биологии

3. Write the word and the Russian equivalent next to each transcription.

a) ['dɪsəplɪn]	discipline	дисциплина, предмет
b) ['mekənɪzəm]		
c) [sel]		
d) ['mɔlɪkju:l]		
e) [baɪ'ɔlədʒi]		
f) [dʒə'netɪks]		
g) [mə'lekjələ(r)]		
h) [bɪ'heɪvjə(r)]		
i) ['njʊrəʊsaɪəns]		
j) ['seljələ(r)]		

4. Complete the sentences with the correct tenses.
   a) My favorite science subject at school *(to be)* biology. There *(to be)* some opportunities outside the classroom to apply what you *(to learn)* in class.

b) Recent technological developments (to give) zoologists new tools for exploring the evolution and interaction of animals.

c) I *(to love)* being a student at Manchester University. I *(to choose)* to come here first because of the Biology degree programme which covers all the topics that *(to interest)* me, including modern fields such as gene engineering and bioethics.

d) I chose Leeds for a number of reasons. One of them *(to be)* that my brother *(to live)* there at that time and it *(to be)* nice to have the extra security when I first *(to arrive)*.

e) He (to enjoy) studying here because the facilities *(to be)* excellent and the university *(to have)* links with other major research centres such as Pharmacology Department at Cornell and Institute of Food Science and Technology. So the teaching *(to be)* always up to date.

f) I *(to work)* there as a volunteer for over six years now.

Credit Points

Tasks	Get real	Writing	Summarizing	Progress test	Total
Maximum score	10	10	10	30	60
Your scores					
%					

Script

Here in Birmingham students studying biological sciences have an opportunity to follow their own interests as they move through the course. They can choose to specialize in genetics, animal biology, biotechnology, environmental biology, microbiology or plant biology.

In the first year students are required to take compulsory modules covering the full range of biology from molecules through cells to organisms such as plants and animals, and finally the interactions between organisms and their environment. It is very convenient because you can wait until the second year before deciding where in this vast area your specific interests lie. But up to a third of the time is spent doing practical work. I felt that this hands-on experience of working with living organisms greatly added to my understanding of biological concepts.

In addition to core courses in Molecular Biology and Evolution, second-year students spend two-thirds of their time studying optional modules such as Animal Biology; Topics in Medical Biosciences; Genes and Genomes; Microbes and Man; Molecular Cell Biology; and Ecology.

There is also a great variety of optional courses which allow you to choose your speciality: Integrative Animal Biology, Human Reproductive Biology, Cancer Biology, topics in Bacterial Infectious Disease, Human Evolution, Animals Climates and Distributions and a lot more.

Central to the final-year studies is the research project. A student should join one of the university research groups to get a first-hand experience of research. Project work does not necessarily mean you are in the laboratory – I was particularly interested in organisms and how they interact in their environment, so I did an ecology-based project involving field work. I studied plant responses to salt stress in the Lake District.

Students are also offered electives in Modern Languages. These are highly popular because more and more students tend to undertake their Professional Training

during their third year in the USA, Germany, France as well as Central and South Africa.

All in all, the course content and the high practical element, as well as ability to work as a part of a team, the communication and presentation skills, I acquired, have been very relevant during my career as an environmentalist.

(Adapted from the Internet sites)

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