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for Biology
students

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Основная цель пособия “Essential English for Biology Students” – помочь студентам естественно-научного профиля, изучающим биологию, усовершенствовать свои знания английского языка. Пособие состоит из 8 разделов, посвященных некоторым из основных проблем биологии, 24 уроков, 10 текстов для дополнительного чтения, кроме того, приводится перечень лексических единиц, часто вызывающих у студентов трудности в употреблении, также дается глоссарий основных биологических терминов.

Материал данного учебного пособия призван помочь студентам, изучающим английский язык специальной области «Биология» овладеть лексическим запасом, необходимым для чтения и перевода текстов научного характера, а также отработать навыки устных выступлений и проведения презентаций.

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UNIT I. WHAT IS BIOLOGY?

Text 1.1 The Characteristics Of Life

■ Essential targets:

By the end of this text you should be able to:

- discuss the main features of living things;
- discuss the stages of development of the science of biology.



Pre-reading

■ **With your partner try to match the definition with the correct word. Guess if you are not sure! Then scan the text quickly to see if you were right.**

Exercise A.

1.	feature	A.	a substance in general that everything in the world consists of
2.	matter	B.	a useless material or substance
3.	heat	C.	natural world in which people and animals live
4.	chemical	D.	the smallest unit of living matter
5.	cell	E.	outer form or outline
6.	environment	F.	a form of energy
7.	shape	G.	substance used in chemistry
8.	waste product	H.	something important or typical of a place or thing

■ Read the given text and make your essential assignments:

Biology is the study of life and living organisms. For as long as people have looked at the world around them, people have studied biology. Even in the days before recorded history, people knew and passed on information about plants and animals.

Modern biology really began in the 17th century. At that time, Anton van Leeuwenhoek, in Holland, invented the microscope and William Harvey, in England, described the circulation of blood. The microscope allowed scientists to discover bacteria, leading to an understanding of the causes of disease, while new knowledge about how the human body works allowed others to find more effective ways of treating illnesses. All these new knowledge needed to be put into order and in the 18th century the Swedish scientist Carl Linnaeus classified all living things into the biological families we know and use today.

In the middle of the 19th century, unnoticed by anyone else, the Austrian monk Gregor Mendel, created his Laws of Inheritance, beginning the study of genetics that is such an important part of biology today. At the same time, while traveling around the world, Charles Darwin was formulating the central principle of modern biology – natural selection as the bases of evolution.

It is hard to believe, but the nature of viruses has become apparent only within the last half of the 19th century and the first step on this path of discovery was taken by the Russian botanist Dmitry Ivanovsky in 1892.

In the 20th century biologists began to recognize how plants and animals live and pass on their genetically coded information to the next generation. Since then, partly because of developments in computer technology, there have been great advances in the field of biology; it is an area of ever-growing knowledge.

During the past few hundred years biology has changed from concentrating on the structure of living organisms to looking more at how they work or function. Over this time biologists have discovered much about health and disease, about the genes which control the activities of our bodies and how humans can control the lives of other organisms. We need to understand how our activities affect the environment, how humans can take responsibility for their own health and welfare and how we must be careful to make appropriate rules for the use of our genetic information.

Nowadays biologists are making fantastic discoveries which will affect all our lives. These discoveries have given us the power to shape our own evolution and to determine the type of world we will live in. Recent advances, especially in genetic engineering, have dramatically affected agriculture, medicine, veterinary science, and industry, and our world view has been revolutionized by modern developments in ecology. There has never been a more exciting nor a more important time to study biology.

Biology is the scientific study of life. But what is life? When we see a bird on a rock it may seem obvious that the bird is alive and the rock is not, but what precisely makes the bird alive and the rock not? Throughout history, thinkers in many fields tried to define life. Although they have failed to provide a universally accepted definition, most scientists agree that all living things share certain basic characteristics:

