Biology in Life and in the Classroom

Prepared by
Alaidar I. B
Torehan D. K

TABLE OF CONTENTS

01

WHAT IS BIOLOGY?

Biology is the natural science that focuses on the study of life and living organisms, including their structure, function, development, interactions, evolution, distribution, and taxonomy. The scope of the field is extensive and is divided into several specialized disciplines, such as anatomy, physiology, ethology, genetics, and many more.

All living things share a few key traits: cellular organization, heritable genetic material and the ability to adapt/evolve, metabolism to regulate energy needs, the ability to interact with the environment, maintain homeostasis, reproduce, and the ability to grow and change.

Biology is one of the big subjects that form the building blocks of everything we understand when it comes to natural science, along with chemistry and physics. Since we have established that modern biology covers every living organism, you can imagine it’s an expansive field with many subdisciplines.

—SOMEONE FAMOUS

MAIN BRANCHES OF BIOLOGY

1

Biochemistry

The study of the chemical processes that take place in or are related to living things;

2

Ecology

The study of how organisms interact with their environment

3

Genetics

The study of how genes are passed down by parents to their offspring, and how they vary from person to person;

4

Physiology

The study of biological processes, such as how a particular organ works, what its function

02 BIOLOGY IN LIFE

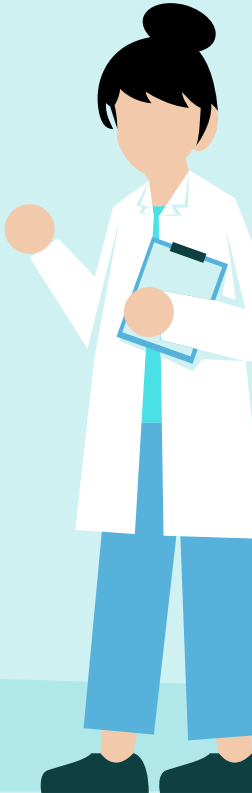
Biology is an utterly interesting field of science that has been the centre of focus for centuries. It is because of the biology that we exist. Whatever we do; involves biology in one way or other.
Even when you are doing nothing or sleeping, each cell in your body is working for you. In short, right from the moment you are born, it is biology that plays its role; you grow into a child, you encounter teenage, welcome adulthood and after that, you start ageing. All these beautiful yet fascinating processes have a hidden biological principle.

The importance of biology in our daily life:

1.To understand our bodies better.
2. To remain healthy. The study of biology helps us remain healthy. It tells us about our body, its parts and how they work.

3. To know about diseases.
4. To understand the effects of fertilizers and pesticides.
5. Biology tells us how we should use fertilizers to improve the quality of the soil.

6. It also tells us how the excessive use of weedicides and pesticides affects living beings, including humans, through food chains.
7. To utilize resources wisely.
8. Conservation of nature.
9. Responsibility for maintenance of ecosystem



03

BIOLOGY IN THE CLASSROOM

Biological science is literally everywhere and everything. As a living being, you are part of biology. So if you want to know how a human body functions, as well as every other living organism, biology is how you find out. It’s the best and truest way to understand the world around you

Why study Biology?

Biology helps us understand the big picture

The study of biology connects us to the world we are living in and reminds us of our interconnectedness with all other life forms.

Biology is at the heart of many social and economic issues

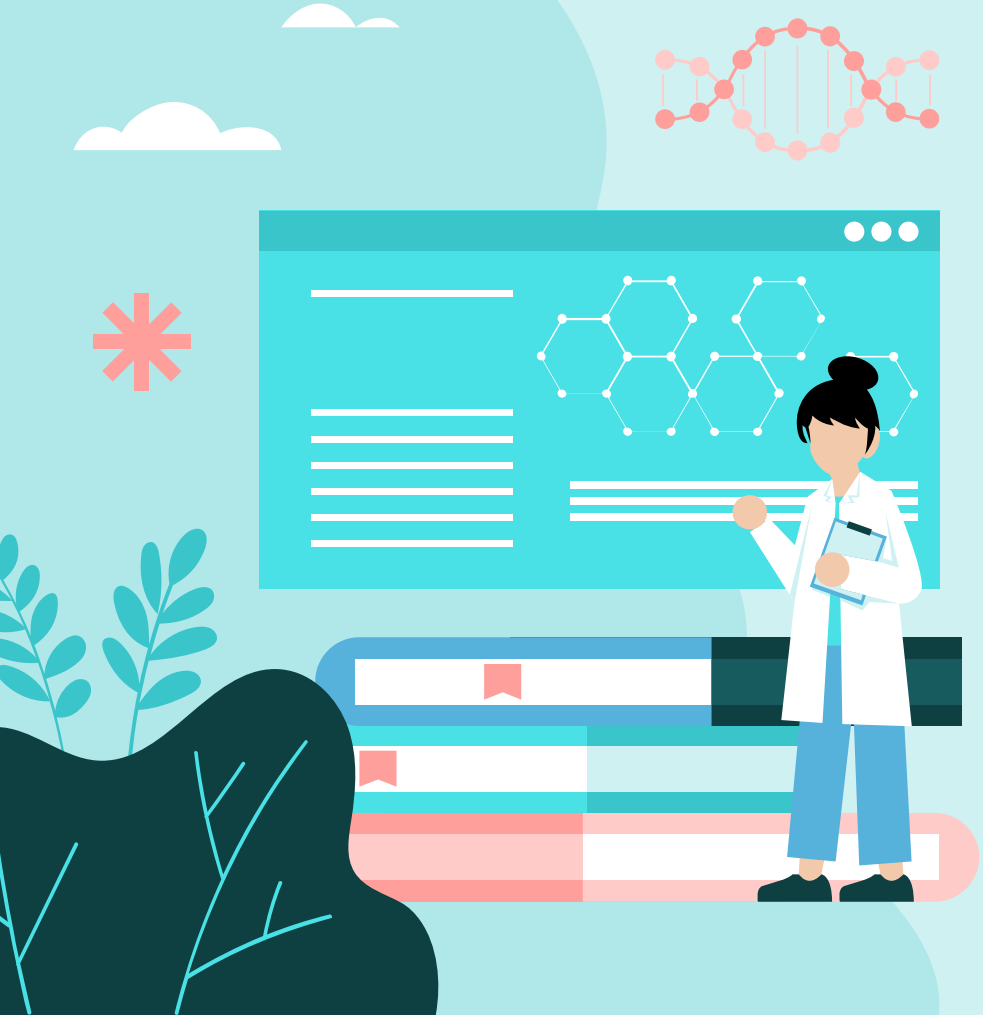
By studying biology, students learn to make more informed decisions about their own health and about significant biological issues such as the use of antibiotics, and the eradication of invasive species.

Biology is at the forefront of ecological issues

Biologists are also at the cutting edge of ecological conservation research. By studying biology, students become much more aware of ecological issues, and better able to debate situations where exploitation of the environment clashes with conservation objectives, or where we need to develop more sustainable ways of using our natural resources.

“Biology is the study of life. In general, biologists study the structure, function, growth, origin, evolution, and distribution of living organisms.”

Alane Lim



THANKS!

DO YOU HAVE ANY QUESTIONS?

Indira.alaidar02@mail.ru
+7070143779
+7081594600

EXERCISE 1

When a group of similar cells work together, it is called:

A Nucleus

C Vesicle

B Tissue

D Cell Membrane

EXERCISE 2

_____ stores and transports materials like nutrients

A Cytoplasm

C Vesicle

B Nucleus

D Organelles

EXERCISE 3

_____ covers and protects tissue underneath it

A. Endoplasmic Reticulum

C. Epithelial Tissue

B. Homeostasis

D. Golgi body/apparatus