



INTRODUCTION TO TECHNICAL ENGLISH

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Technical English (Bio 102)

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Concepts

- The Cellular Foundation of Life
- Cell Division and Genetics
- Molecular Biology and Biotechnology
- Diversity of Life
- Animal Structure and Function
- Ecology



Objectives

- By the end of the class students will be to;
- Have general overview of Biology prefix and suffix
- Define different words of biology
- Know the related terms of cell biology



Introduction

In **biology**, a **prefix** is a group of letters or a word segment that is added to the beginning of a biological term to modify or extend its meaning.

Prefixes in biology often come from Greek or Latin roots and are used to describe specific characteristics, actions, or locations related to organisms, cells, structures, or processes.



A **prefix** is a group of letters that are added to the **beginning** of a word to change its meaning.

Prefix = A part added **before** the main word to **alter** or **expand** its meaning.

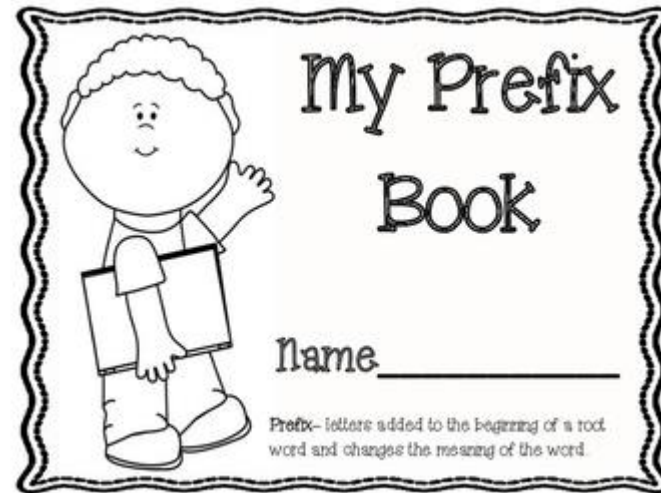
For example:

- **Biology** = (**bio** meaning life)
- **Antibiotic** = (**anti-** meaning against) bacteria



Importance of prefix

Prefixes can assist in breaking down complex terms and comprehending the concepts they represent.



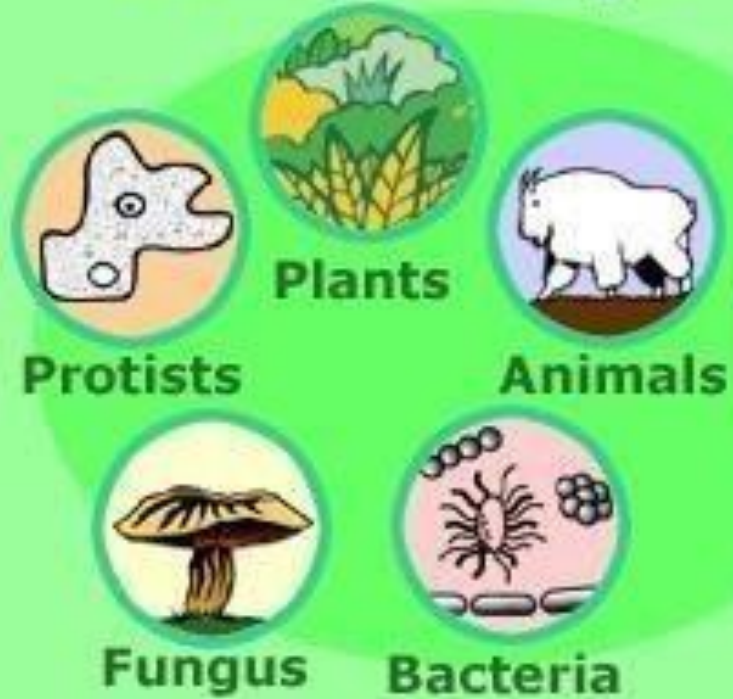
Important Prefixes

(Comes BEFORE the root word)

Prefix	Meaning	Example
A- or An-	Lack of/ Not	Abiotic / Anaerobic
Uni-	One	Unicellular
Bi- or Di-	Two	Bilayer
Multi-	Many	Multicellular
Anti-	Opposite/Against	Antibiotic
Arth-	Joint	Arthritis
Auto-	Self	Autoimmune
Bio-	Life	Biology
Zoo-	Animal	Zoology
Eco-	Environment	Ecology

BIOTIC

Living Things



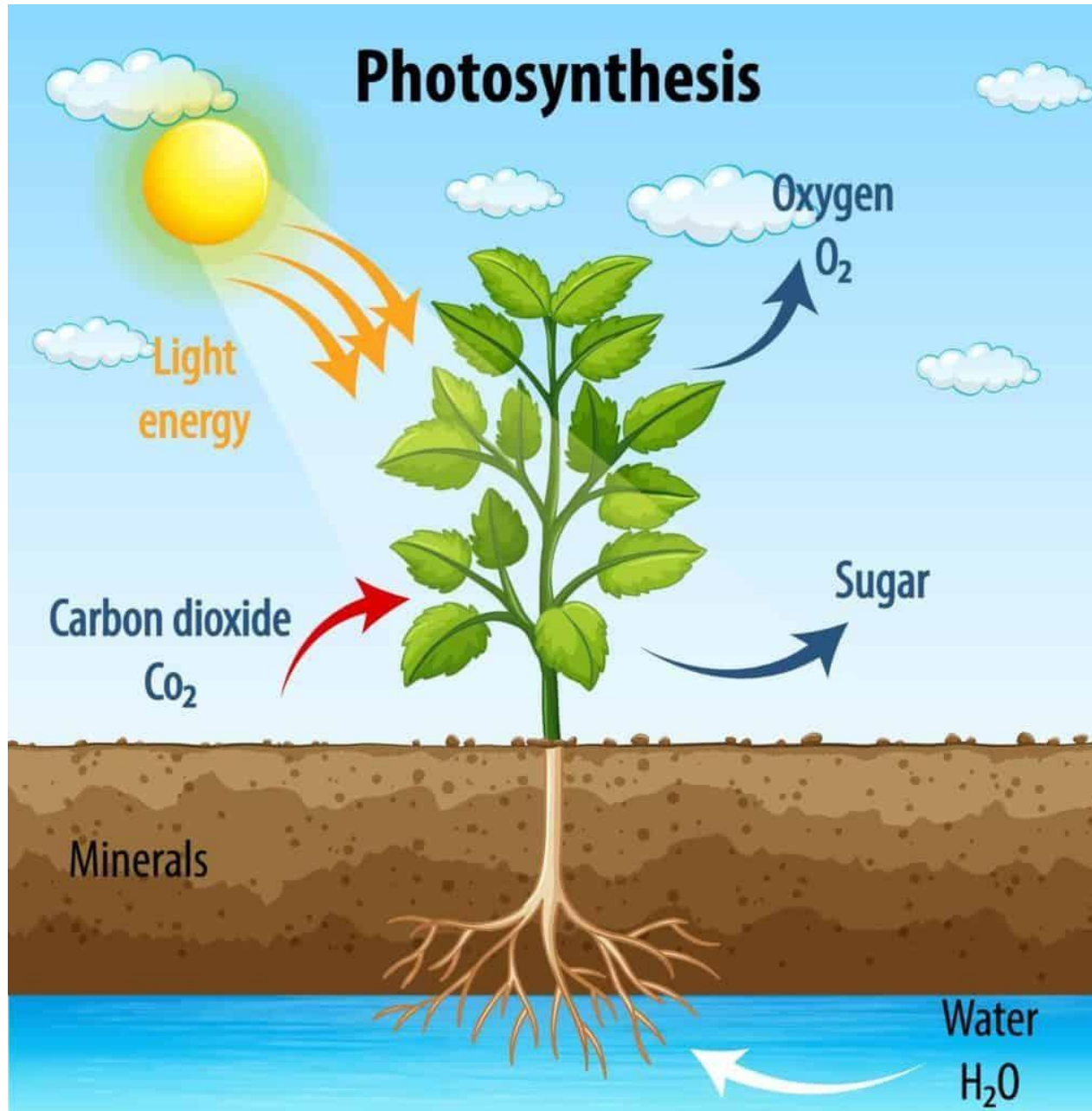
ABIOTIC

Non Living Things



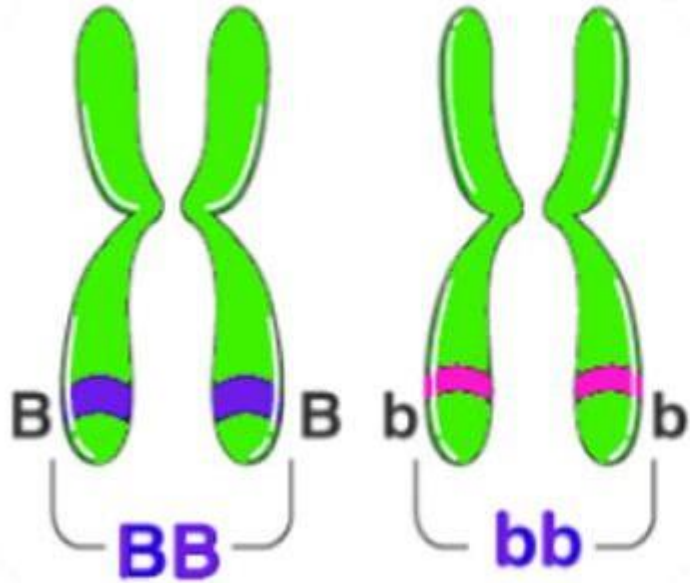
Prefix	Meaning	Example
Photo-	Light	Photosynthesis
Chloro-	Green	Chlorophyll
Cyto-	Cell	Cytoplasm
Epi-	Above/On top	Epidermis
Exo-	Outside	Exocytosis
Endo-	Inside	Endocytosis
Gastr-	Stomach	Gastritis
Cardi-	Heart	Cardiovascular System
Hemo-	Blood	Hemorrhage
Osteo	Bone	Osteoporosis

Photosynthesis

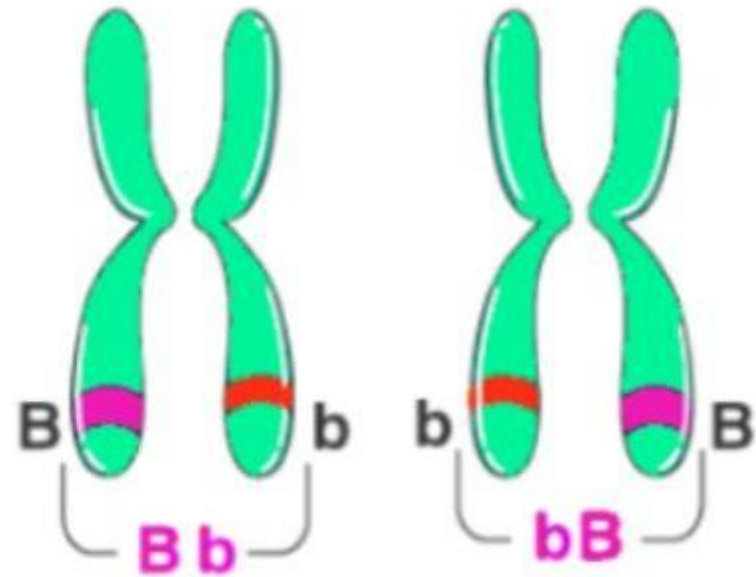


Prefix	Meaning	Example
Hetero-	Different	Heterozygous
Homo-	Same	Homozygous
Hydro-	Water	hydrogen
Chemo-	Chemical	chemotherapy
Macro-	Large	Macrophage
Micro-	Small	Microorganism
Pseudo-	Fake/False	Pseudopod

Homozygous vs Heterozygous in genetics



Homozygous = Same Alleles



Heterozygous = Different Alleles

Classroom Activity

1. Search for biological terms with the prefix you learned today
2. Write the words on your notebook with their definitions
3. Share the new words with the class

EXAMPLE:

Histology: **Histo-** = tissue **-ology** = study

Histology is the study of tissues.



Important Suffixes

(Comes AFTER the root word)

Suffix	Meaning	Example
-ology	Study of	Biology
-osis	Actions/Conditions	Osmosis
-itis	Inflammation	Dermatitis
-phase	Stage	Anaphase
-pod	Foot	Pseudopod
-stasis	Stationary	Homeostasis
-synthesis	Produce/Make	Photosynthesis
-lysis	Break Apart	Hemolysis

Classroom Activity

1. Search for biological terms with the suffix you learned today
2. Write the words on your notebook with their definitions
3. Share the new words with the class

EXAMPLE:

Histology: **Histo-** = tissue **-ology** = study

Histology is the study of tissues.



Reference

1. Campbell Biology” by Lisa A. Urry, Michael L. Cain, Steven A. Wasserman, Peter V. Minorsky, Jane B. Reece.
2. Biology” by Neil A. Campbell and Jane B. Reece
3. [Merriam-Webster Medical Dictionary](#): For general definitions of scientific terms.
4. [The Online Etymology Dictionary](#): Offers historical roots and meanings of prefixes and suffixes.
5. Biology Online: A glossary of biological terms including many prefixes.