

LESSON NOTES

Subject: Basic Science

Year/Level: 9

Week 7

Strand	1 : LIVING THINGS AND THE ENVIRONMENT
Sub Strand	1.2 : LIVNG TOGETHER
Content Learning Outcome	Discover and discuss the features of the environment in terrestrial and aquatic ecosystems and account for organisms adaptability to such environment for survival.

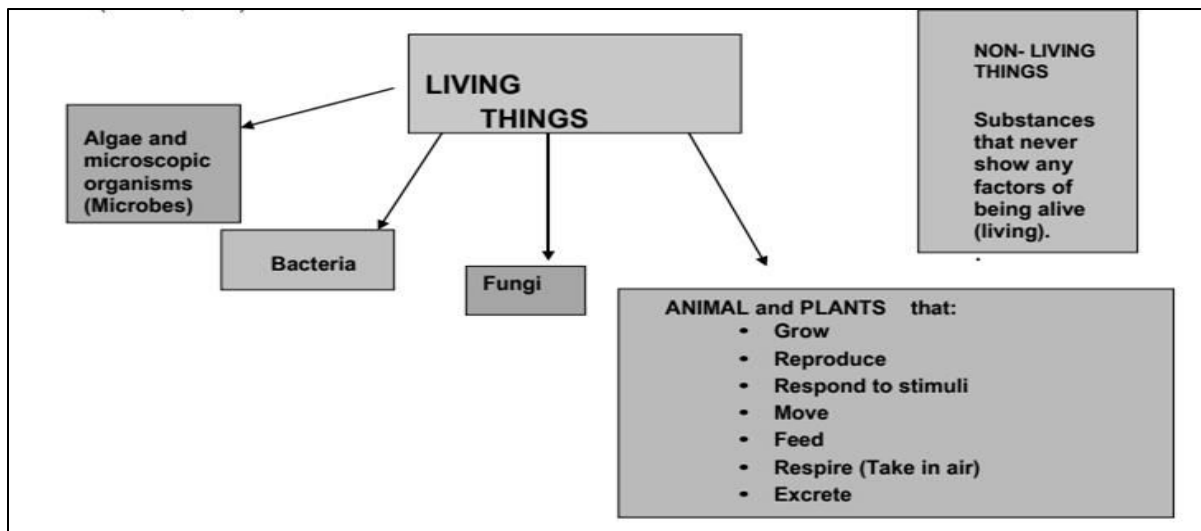
Introduction

Biology: the study of living things.

- To decide if something is living or non-living, we can use the phrase **MRS GREN**.
 - ✓ **M** is for movement
 - ✓ **R** is for respiration
 - ✓ **S** is for sensitivity
 - ✓ **G** is for growth
 - ✓ **R** is for reproduction
 - ✓ **E** is for excretion
 - ✓ **N** is for nutrition.

What are living things?

- made up of organic matter :
 - ✓ carbohydrates
 - ✓ lipids
 - ✓ proteins
 - ✓ nucleic acids
- Trap energy from their surroundings, store these energies, and release them in a controlled manner and use the released energy to maintain their living state.
- Exchange matter with their surroundings including supplies of carbon, hydrogen, oxygen, nitrogen and Sulphur.



What is the Environment (of the living thing)?

- ^c Source: Year 9 Text book; Science Book 1, Lower Secondary, pg. 51
- **E** Environment consists of living and non-living parts. (Wilkinson, 1992)
- External surroundings in which an organism lives and are influenced by abiotic (non-living) and biotic (living) factors. (Kinnear, 1992)
- **Abiotic factors** :
 - ✓ Soil
 - ✓ Water
 - ✓ Air
 - ✓ light intensity
 - ✓ temperature
 - ✓ humidity (climatic conditions)
- **Biotic factors** :
 - competition for:
 - ✓ food
 - ✓ space
 - ✓ mates
 - ✓ density
 - ✓ population

ACTIVITY:

1. MRS GREN is a phrase used to decide on whether something is living or non-living. What does each alphabet stand for:
 - a) M? _____
 - b) S? _____
 - c) E? _____

2. Name four organic matter living things are made up of?
 - a) _____
 - b) _____
 - c) _____
 - d) _____

...STAY SAFE... 