STRAND 2: LIVING THINGS AND THEIR ENVIRONMENT

NUTRITION IN PLANTS

Introduction

- Nutrition refers to the process by which living organisms obtain and assimilate (utilize) nutrients.
- It is one of the fundamental characteristics of living things.

- The nutrients obtained are useful to the living organisms in many ways:

- The nutrients are required for growth and development of the living organisms.
- The nutrients are required for energy provision as they are broken down to release energy.
- The nutrients are also required for repair of worn out tissues
- Nutrients are required for synthesis of very vital macromolecules in the body such as hormones and enzymes.

Modes of Nutrition

- There are two main nutrition modes:

1. **Autotrophism:** mode of nutrition through which living organisms manufacture their own food from simple inorganic substances in the environment such as carbon (IV) oxide, water and mineral ions. Organisms that make their own food through this mode are autotrophs.
2. **Heterotrophism:** mode of nutrition in which living organisms depend on already manufactured food materials from other living organisms. Heterotrophs are the organisms that feed on already manufactured food materials.

Autotrophism

- In this mode of nutrition, organisms manufacture their own food from readily available materials in the environment. These organisms use energy to combine carbon (IV) oxide, water and mineral salts in complex reactions to manufacture food substances.
- Depending on the source of energy used to manufacture the food . There are two types of autotrophism:

1. Chemosynthesis