

## **UNIT 2 TOPIC 5**

### **Growth and Development in Different Organisms**

#### **Pupil Learning Outcomes**

**Mandatory Course Key Area -** Growth and development varies in different organisms.

#### **NLC Learning Outcomes**

1. State that growth is an irreversible increase in dry mass of an organism.
2. State that different organisms grow in different ways.
3. State that a growth curve can be used to track the growth of an organism.
4. Describe and explain the shapes of various different growth curves.

**Mandatory Course Key Area** - Human development is influenced by hormones and chemicals that are taken into the body, both before and after birth.

**NLC Learning Outcomes**

1. State that hormones are special chemicals that are produced in one area of an organism and are transported elsewhere.
2. State that hormones control a number of things inside an organism including growth.
3. State that growth hormone is also known as somatotrophin.
4. Describe the effects of over- or under-production of somatotrophin in humans.
5. State that food is required by the body to ensure healthy growth and development.
6. State that a balanced diet is essential for healthy development.
7. Describe some of the problems that can occur due to a diet lacking in a particular vitamin or mineral.
8. State that foetal development occurs by the process of cell division and describe the major events that take place.
9. State that the placenta is the point of transfer of materials between mother and baby.
10. Describe some of the developmental problems that can occur if a developing foetus receives certain chemicals from the mother.

**Mandatory Course Key Area** - Seed germination is dependent on a supply of certain chemicals and conditions.

**NLC Learning Outcomes**

1. State that plants also need certain chemicals and conditions in order to grow and develop properly.
2. State that germination is the start of growth of a plant from a seed.
3. State that a seed needs water, oxygen and a suitable temperature for germination to occur and explain why each of these three factors is required.