

Title:	Understanding Plant Growth
Level:	Entry Level 3
Credit value:	2
GLH:	20
Unique Reference Number:	Y/652/0011
Sector Subject Area:	14.1 Foundations for Learning and Life
Aim:	The aim of this unit is to provide learners with the knowledge and skills to understand how plants grow and what they need to remain healthy. Learners will explore basic plant structure, recognise stages of growth, and identify environmental factors that affect plant development. The unit supports progression into practical horticulture roles by building essential knowledge that underpins safe and effective growing practice in a range of environments.
Assessment Type:	Assessment of this unit will be through an internally set and internally assessed portfolio of evidence.
Assessment Guidance:	<p>Assessment decisions for skills-based learning outcomes must be made during the learner's normal work activity.</p> <p>Skills-based assessment must include direct observation as the main source of evidence and must be carried out over an appropriate period of time.</p> <p>Evidence must confirm that the learner can identify the basic needs of plants, recognise simple plant growth stages, describe factors affecting plant growth, and understand safe working practices when handling plants and soil.</p> <p>Assessment should reflect realistic horticultural contexts and may be linked to practical growing activities where appropriate.</p>

Learning outcomes

The learner will:

1. Understand the basic needs of plants.

Delivery content:

The aim of this learning outcome is to provide the learners with the knowledge and skills to identify the essential requirements for plant survival and growth. Learners should explore what plants need to grow successfully and how these needs are met in different growing environments.

The learner must:

- 1.1 Identify the basic needs of plants.
- 1.2 State why plants need light and water.
- 1.3 Give **examples** of how soil supports plant growth.

2. Understand plant growth stages.

Delivery content:

The aim of this learning outcome is to provide the learners with the knowledge and skills to recognise how plants develop over time. Learners should explore simple plant structures and identify visible changes during growth

The learner must:

- 2.1 Identify parts of a plant.
- 2.2 Describe simple **stages** of plant growth.
- 2.3 Recognise **signs** of healthy growth.

3. Understand factors affecting plant growth.

Delivery content:

The aim of this learning outcome is to provide learners with the knowledge and skills to

The learner must:

- 3.1 Identify simple **environmental factors**.
- 3.2 State what happens when plants do not receive proper care.
- 3.3 Recognise signs of **poor plant health**

4. Understand safe working practises when handling plants and soil.

Delivery content:

The aim of this learning outcome is to provide learners with the knowledge and skills to work safely when handling plants, soil, and tools. Learners should explore hygiene and safety expectations in growing environments.

The learner must:

- 4.1 Identify simple **hygiene practises** when working with soil.
- 4.2 State why tools must be used safely.
- 4.3 Recognise basic **safety rules** in a growing environment.

<p>Scope of Training</p> <p>The Scope of Training identifies areas that must be covered during the delivery of this unit. This is the minimum that is expected but tutors are expected to include other areas, knowledge of which will benefit their learners, based on location, types of work available and from the tutors own professional experience.</p>	
<p>Requirements</p>	
<p>Examples:</p>	<p>Definition:</p> <p>The ways in which soil helps plants to grow and remain healthy.</p> <p>Teaching must include:</p> <ul style="list-style-type: none"> • Ways in which soil provides nutrients for plant growth. • How soil holds water for plant roots. • How soil gives physical support to roots. <p>Teaching could include:</p> <ul style="list-style-type: none"> • Examples of different types of soil (e.g. sandy, clay, loam). • The difference between soil and compost. • Simple demonstrations showing how roots grow through soil.
<p>Stages:</p>	<p>Definition:</p> <p>The visible phases a plant goes through from seed to maturity.</p> <p>Teaching must include:</p> <ul style="list-style-type: none"> • The stages of plant growth: <ul style="list-style-type: none"> ○ Seed. ○ Germination. ○ Seedling. ○ Mature plant. <p>Teaching could include:</p> <ul style="list-style-type: none"> • Time-lapse images. • Growing seeds in class. • Sorting growth stages in order.
<p>Signs:</p>	<p>Definition:</p> <p>Visible indicators that a plant is developing well.</p> <p>Teaching must include:</p>

	<ul style="list-style-type: none"> • Signs of healthy growth to include: <ul style="list-style-type: none"> ○ Strong upright stems. ○ Green leaves. ○ New growth. <p>Teaching could include:</p> <ul style="list-style-type: none"> • Comparing healthy and unhealthy plants. • Photographs of plant conditions. • Simple plant health checks.
<p>Environmental factors:</p>	<p>Definition: External conditions that influence plant growth.</p> <p>Teaching must include:</p> <ul style="list-style-type: none"> • Environmental factors including: <ul style="list-style-type: none"> ○ Light levels. ○ Water availability. ○ Temperature. ○ Soil condition. <p>Teaching could include:</p> <ul style="list-style-type: none"> • Effects of weather changes. • Indoor versus outdoor growing. • Seasonal variation.
<p>Plant health:</p>	<p>Definition: Visible indicators that a plant may be stressed or unhealthy.</p> <p>Teaching must include:</p> <ul style="list-style-type: none"> • Signs of poor plant health to include: <ul style="list-style-type: none"> ○ Yellowing leaves. ○ Wilting. ○ Stunted growth. <p>Teaching could include:</p> <ul style="list-style-type: none"> • Causes of common plant problems. • Observing affected plants. • Simple problem identification activities.
<p>Hygiene practices:</p>	<p>Definition: Basic cleanliness measures to reduce risk when handling soil and plants.</p>

	<p>Teaching must include:</p> <ul style="list-style-type: none"> • Washing hands after handling soil. • Keeping tools clean. • Avoiding touching face during tasks. <p>Teaching could include:</p> <ul style="list-style-type: none"> • Demonstrating correct handwashing. • Cleaning tools after use. • Discussion of why soil can carry bacteria.
<p>Safety rules:</p>	<p>Definition:</p> <p>Basic rules that help maintain a safe working area during horticultural activities.</p> <p>Teaching must include:</p> <ul style="list-style-type: none"> • Using tools correctly. • Keeping walkways clear. • Following instructions from supervisors. <p>Teaching could include:</p> <ul style="list-style-type: none"> • Identifying hazards in a growing space. • Role-play safe behaviour. • Discussion of accident prevention.