

**PENANG SANGAM HIGH SCHOOL  
P.O.BOX 44, RAKIRAKI**

**LESSON NOTES**

**Week 11: 02/08/21 TO 06/08/21**

**Year/Level: 10**

**Subject: AGRICULTURAL SCIENCE**

<b>STRAND</b>	STRAND AS10.3 AGRONOMY
<b>SUB STRAND</b>	SUB – STRAND AS 10.3.2 HORTICULTURE
<b>CONTENT LEARNING OUTCOME</b>	AS 10.3.2.1. DISCUSS AND DEMONSTRATE METHODS OF PLANT PROPAGATION.

**ASEXUAL PLANT PROPAGATION METHODS**

**VOCABULARY**

**Scion** - the upper part of the plant which usually contain branches and leaves and has high quality fruits.

**Cambium** - part of the stem and is the area of active growth and contains xylem and Phloem vessels.

**Root stock** - the lower part of the plant that is attached to the soil contains vigorous root system

**Budding** - the growing of the bud of one type of plant (the scion) on the stem of another plant (root stock)

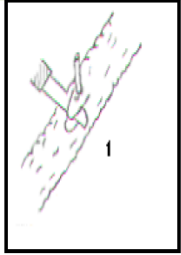
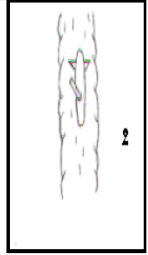
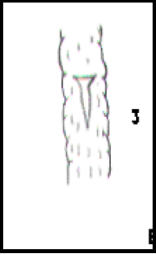
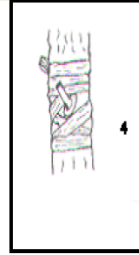
**Grafting** - An artificial method of asexual plant propagation where a scion is attached to the root stock of different plant of the same species.

**Layering** - it is a practice of inducing root development on a stem, which is still attached to the parent tree.

**Marcotting** - It is also known as aerial layering where the root is induced on the stem or branch of the plant.

**Rooting hormone** - a chemical which is designed to increase the growth of roots on the plant.

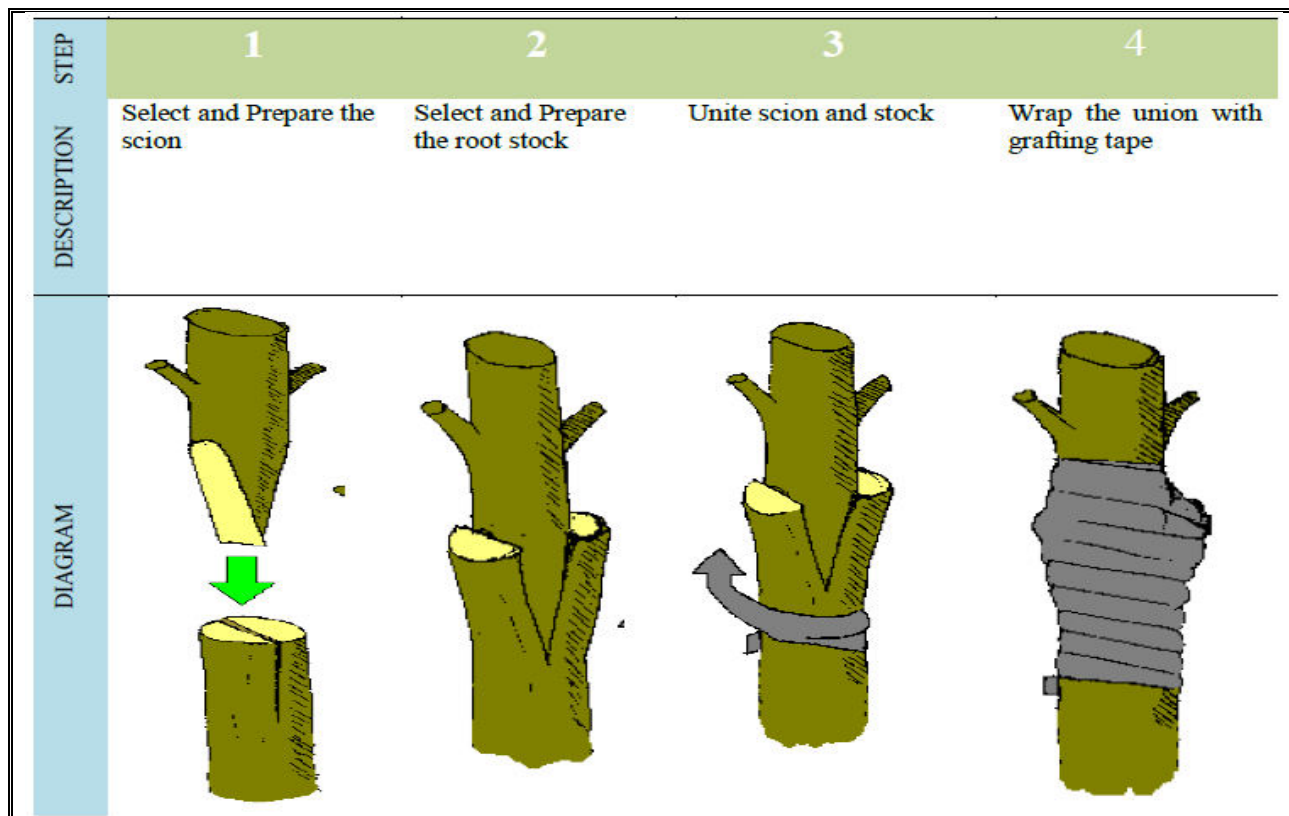
**BUDDING**

STEP	1	2	3	4
DESCRIPTION	A bud is removed from the bud wood by means of a clean sharp cut	An inverted 'T' cut is made on the root stock	Bud is inserted in the rootstock by gently lifting the bark and pushing the bark upwards along the vertical cut	The union is then wrapped with a budding tape. The tape can be removed once the inserted bud begins to shoot, and also break the head of the rootstock.
DIAGRAM				

## 1) GRAFTING

### Tips for Successful Grafting

- ☞ Cambium layers of scion and root stock to be in contact for growth to take place.
- ☞ Wound to be sealed with grafting/budding wax to prevent infection.
- ☞ Union to be secured with a grafting/budding tape to avoid movement of the scion and root stock.
- ☞ Start of Rainy Season is the best time to do grafting
- ☞ Clear plastic is normally put on the scion to avoid dehydration



### STUDENT ACTIVITY

Re-write the following steps of wedge grafting in correct order.

i. Select and prepare the root stock	
ii. Wrap the union with grafting tape	
iii. Select and prepare the scion	
iv. Unite scion and stock	