

LESSON NOTE FOR WEEK NINE (FAMVAR INTERNATIONAL SECONDARY SCHOOL)

SUBJECT: AGRICULTURAL SCIENCE

CLASS: JSS1

TOPIC: CROP PLANT FORMS (MONOCOTYLEDON AND DICOTYLEDON)

A crop is any plant that has a useful purpose or economic value. Crop plants are grouped into two forms based on the structure of their seeds or the number of seed leaves they produce.

Seed leaf is otherwise known as **cotyledon**. A cotyledon or seed leaf is the natural leaf borne by the seed of a plant. Food for germinating seed is stored in the cotyledon.

Monocotyledonous crop: These are vascular plants with one seed leaf or cotyledon. They also have adventitious roots. These are roots that can grow from almost any part of the plant that comes into contact with the soil, such as the stem. The leaves of monocots have parallel veins (parallel venation).

Examples of monocotyledonous plants include oil palm, coconut, banana, plantain, pineapple, onions, ginger, date-palm, garlic, sugarcane, cereals (such as wheat, millet, rice, maize, sorghum, rye, barley, oats) and all grasses.

Dicotyledonous crop: These are vascular plants which have two seed leaves or cotyledons in the embryo of their seed. The root system of a dicot grows farther into the ground than that of a monocot. This allows its taproot system to reach farther down into the soil as it searches for water and nutrients. The leaves of dicots have reticulated or branched veins.

Examples of dicots are broad-leafed magnolias, roses, legumes (peas, cowpea, beans, lentils, peanuts) daisies, mint, lettuce, tomato and oak.

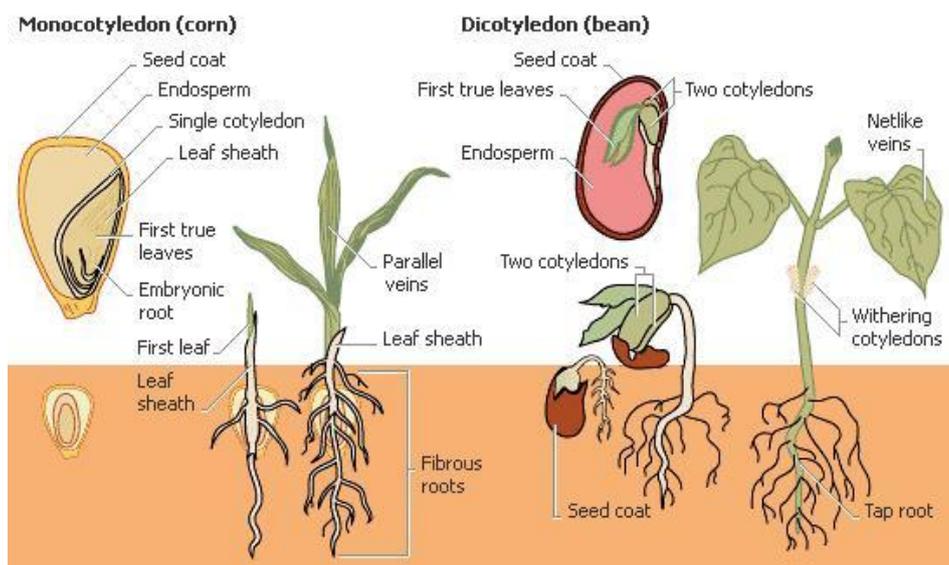


Diagram showing monocotyledonous and dicotyledonous plants

HOMEWORK

1. Name the two classes of crops based on their cotyledons
2. What are monocotyledonous crops?
 - B. List out four examples of monocotyledonous crops.
3. Class the following crops based on their number of cotyledons. The first one has been done for you.

| Name of plant | Type based on number of seed leaves |
|----------------------|--|
| Beans | Dicotyledon |
| Maize | |
| Cowpea | |
| Pineapple | |
| Lettuce | |