

Class - VII Subject - Biology  
Chapter - 2 Classification of Plants  
Teacher - Ms. Nidhi Rana

Good Morning Children! In the last lecture we have learnt about Kingdom - Fungi. Today we are going to discuss Kingdom - Plantae.

Kingdom Plantae comprises multicellular and eukaryotic organisms that show an autotrophic mode of nutrition. They contain the green pigment chlorophyll which helps them to make their own food and provide oxygen to other living organisms for their survival by the process of photosynthesis.

There are a wide variety of plants all around us; from the simple, unicellular forms, such as the algae *Chlorella*, to the complex, multicellular forms, such as, mango and neem trees.

Different types of plants —  $\left\{ \begin{array}{l} \text{Non-flowering plants} \\ \text{Flowering plants} \end{array} \right.$

Non-flowering plants - Plant that donot bear flowers or seeds. They mostly reproduce by means of spores.

- (i) Algae - These are simple, mostly aquatic, undifferentiated plant body called thallus. Algae do not bear roots, stems or leaves. They also lack tissues for conducting water. They are usually green, having chlorophyll. Some algae, however have colours like red and brown. Example - *Spirogyra*, *Chlorella*.



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- (ii) Bryophytes - (Liverworts and Mosses). Mosses are small, soft terrestrial plants that grow in damp areas and form a velvety green layer. Such plants have stems and leaves, but no roots. They have thread-like structures called rhizoids which stick to the surface and absorb water.
- ★ They are called 'amphibians of the plant group' as they need water to reproduce.
- (iii) Ferns (Pteridophytes) - Ferns are terrestrial plants that have distinct roots, stems and leaves. These plants contain simple conducting tissues for transporting water and food. Their leaves produce small rounded bodies on their undersurface called sori which contain tiny spores which get scattered to produce new plants.

Flowering Plants (Phanerogams)

Gymnosperms  
Angiosperms

Gymnosperms - bear seeds which are thin and naked, not enclosed in fruits.

- Gymnosperms are evergreen (do not shed their leaves at one time) example - pine, fir, cedar trees. They bear seeds inside the cones, hence also called cone-bearing plants.

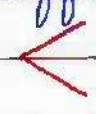
Angiosperms - These are plants that bear flowers, fruits and seeds. The seeds are



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enclosed within fruit that develops from the ovary. This group forms the largest group in the plant kingdom.

→ most flower-bearing plants are deciduous (they shed all their leaves seasonally)

Based on the structural differences flower-bearing plants can be divided into  Monocotyledonous plants  
Dicotyledonous plants.

Monocotyledonous plants - (rice, maize) Plants with seeds having one cotyledon (seed leaf). Leaves have parallel venation. Fibrous root system is present.

Dicotyledonous plants - (Pea, bean, rose, mango) Plants with seeds having two cotyledons. Leaves with reticulate venation. Tap root system is present.

Home Assignment

1. Do multiple choice Questions, Short Answer Questions (Q1, Q2, Q3, Q4) on Page no 30, 31
2. Give reason: Bryophytes are called amphibians of plant kingdom.

Note: Long Answer Questions on Page no - 31 have already been covered in earlier given assignments.