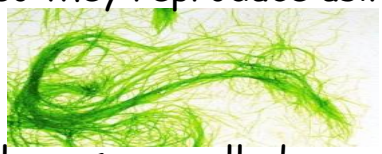
Plant Kingdom Overview NOTES

1. Major characteristics of ALL plants…

   - **Prokaryotic (nucleus)**
   - **Multicellular**
   - **Autotrophic**
   - **No locomotion**
   - **Cell wall made of cellulose**

2. SOME plants, however…
   - Have NO **roots**, **stems**, or **leaves** (ex. Mosses, algae), so they need to live in a moist/wet environment
   - Have NO **flower** ,**fruit** or **seeds**, so they reproduce using spores, instead

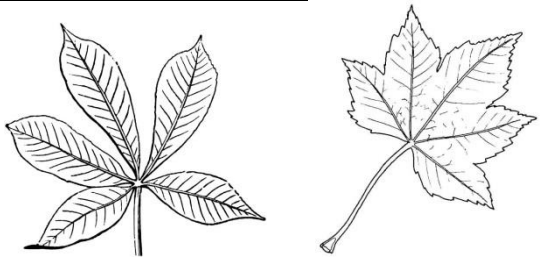


3. Plants that HAVE roots, stems, and leaves are called **vascular** plants. They have vessels/tubes to carry food and water throughout their bodies. Most have either **flowers** or **cones** (like pine cones) that are used for reproduction. Egg cells become fertilized by plant sperm (called **pollen**) inside the flower or cone. This is an example of **sexual** reproduction.

4. When the egg cell is fertilized by the pollen, it becomes **zygote/fruit**. Seed Plants are vascular plants that use seeds for reproduction. They have vascular tissue that is used to transport water and food throughout the plant. There are 2 main types of vascular tissue:

   - **Xylem** – transport **water** up from the roots to the leaves
   - **Phloem** – transport **glucose** from the leaves down to the roots

Plant Organs

Organ	Structure	Function
Root		1. Absorbs water and minerals 2. Anchors plant 3. Stores glucose/starch
Stem		1. Holds leaves up 2. Connects roots to leaves 3. Stores glucose/starch
Leaf		1. Photosynthesis 2. Some store glucose/starch
Flower		Sexual reproduction - produces seed
Fruit		1. Protects the seed 2. Helps with seed dispersal
Seed		Produces new plant