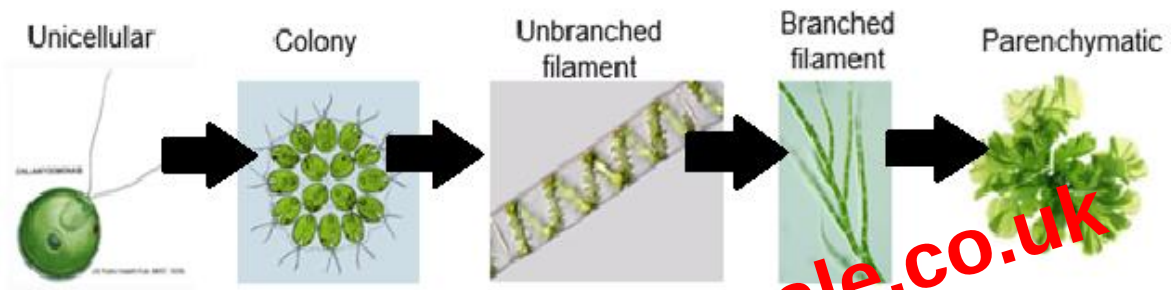


Developmental lineages

Habitat



Growth Form



4. Viridiplantae (green plants)

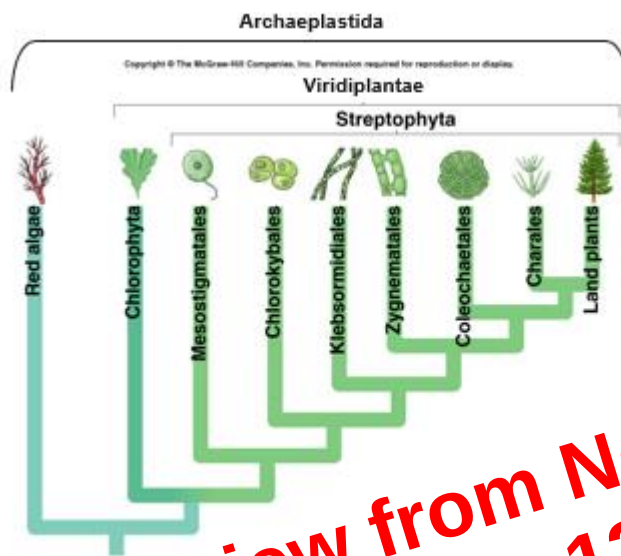
Include land plants & green algae

- 2 clades: Chlorophyta & Streptophyta
- Land plants originated from streptophyte alga
 - thus, streptophyta includes land plants
- 7 lineages within Streptophyta
 - 2 historical candidates, both multicellular freshwater algae
 - Charales (incl. *Chara*) with *ca.* 300 species
 - Coleochaetales with *ca.* 30 species
- Charales generally larger than Coleochaetales
- DNA suggests Charales are closer to land plants
 - Despite them being unicellular or filamentous
 - *Spirogyra* and relatives
- Charales fossils (420mil years old) – shared ancestor of Charales and land plants was complex freshwater alga

The Move to Land

What is a plant

- Essentially a group of organisms that share a freshwater algal ancestor
- Have descended and diversified over 470mil years
- Diagnostic character: they protect their embryos
 - Earned the name: Embryophyta
- Viridiplantae – term used to describe the relationship between green algae and land plants



Preview from Notesale.co.uk
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- 11 living land phyla
 - All protect their embryos
 - All have multicellular n and 2n phases
- 2 major evolutionary patterns in plant lineage
 - Gradual increase in extent of embryo protection
 - Gradual decrease in dominance of gametophyte phase and increase in dominance of sporophyte phase