

Kingdom - Plantae

⇒ Cell with cell wall made up of cellulose.

⇒ Presence of chlorophyll.

⇒ Autotrophic in nutrition.

⇒ Food materials are reserved in the form of starch.

Plantae

Division

Algae

⇒ Thallus body

(Plant body is not differentiated into Root, stem & leaves)

Bryophyta

Thallus body
or Differentiated
Root is differentiated into Rhizoid.

← Absence of vascular bundle →

Tracheophyta

Root, stem & leaves are differentiated.

Presence of vascular bundle / vascular tissue / Conducting tissue
Xylem & Phloem



Complex Permanent tissue

Algae :-

- ⇒ Unicellular or Multicellular.
- ⇒ cell with cell wall made up of cellulose.
- ⇒ Thallus body.
- ⇒ Presence of chlorophyll.
- ⇒ Autotrophic in nutrition.
- ⇒ Ponds, rivers, moist places etc.
- Ex - Chlamydomonas (Unicellular), Spirogyra, Ulothrix, Fucus etc.

Bryophyta

⇒ Thallus body, or differentiated into Rhizoid (Unicellular hair like structure), stem & simple leaf.

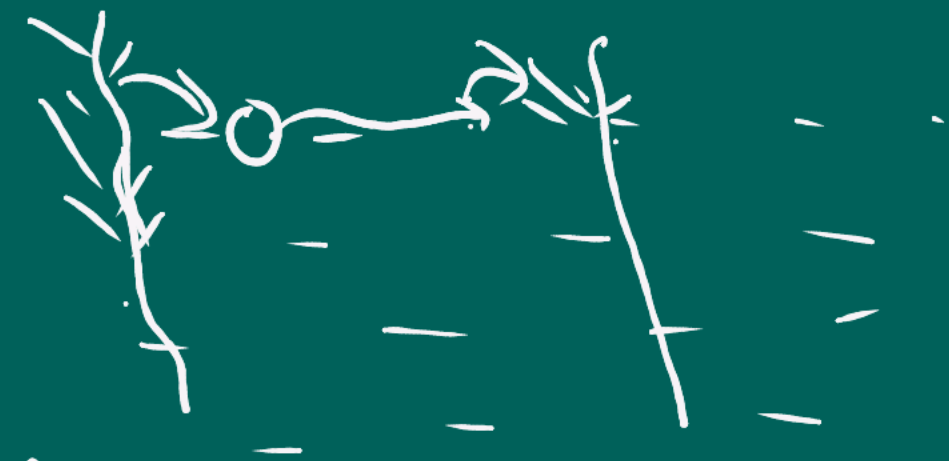
⇒ Gametophyte stage - Reproduction by the { } { }
formation of gametes. (sexual reproduction)

Sporophyte stage - Reproduction by the formation of spores.
(Asexual reproduction)

male gamete - Antheridium

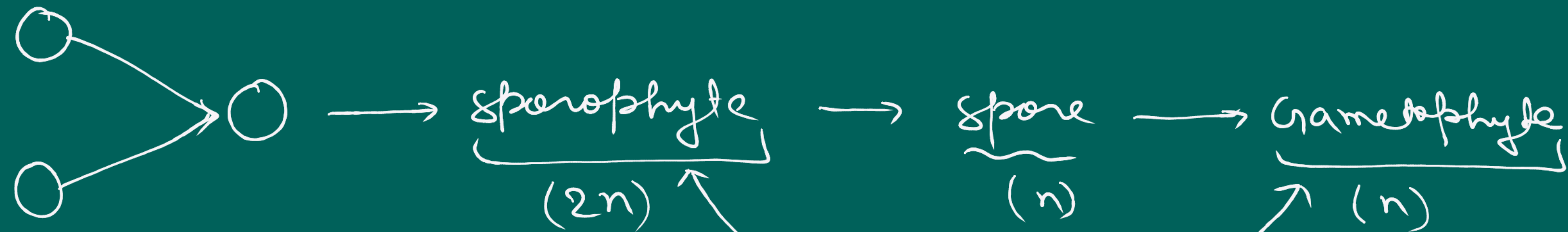
Female gamete - Archegonium

Amphibian plants - Needs water to transfer male gametes for fertilization.



⇒ Dioecious.

male plant & Female plant.



Alternation of generation - The phenomenon in which sporophytic stage (Asexual reproduction) & gametophytic stage (sexual reproduction) comes alternately in the life cycle of a plant is called alternation of generation.

- ⇒ Gametophytic stage is dominant.
- ⇒ Sporophytic stage depends on gametophyte.
- ⇒ Moist place, shady place
- Ex - Marchantia, moss, Riccia etc.

