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Nursing Science

1) Classification of Plants according to Eichler's Grouping in 1883. In 1883, Eichler divided the kingdom Plantae into two sub kingdoms, CRYPTOGAMAE and PHANEROGAMAE

Subphylum Cryptogamae
Characteristics

1) The embryo if Present is naked and called spores
2) They are lower plants and they do not bear flowers
3) They include 3 divisions, Thallophyta, Bryophyta and Pteridophyta

1) Division Thallophyta
a) The plants here are Commonly called algae
b) They have a simple body design
c) Examples are Ulothrix, Chara and Spirogyra e.t.c

Sub Division Algae
* They are Autotrophs
* Their sizes and forms are variable
* Their body is simple

1) Division Bryophyta
a) It has an embryo in it's developmental process.
b) The plant body is commonly differentiated to form a stem and leaf-like structures.
c) Examples are: Marchantia, moss e.t.c

Division Pteridophyta

a) They bear sporangia which produces spores
b) They have specialized tissue for the condition Conduction of water and other substances from on Part of the plant body to another
c) Examples are ferns, Pteris, marsilea e.t.c

Sub-division Phanerogamae

- The seeds are the result of sexual reproduct Process
- They bear flower and seed.
- They are further classified into Gymnosperm (Naked Seed) and Angiosperm (Enclosed seed)

Sub division Gymnospermae

- Sporangia are formed over a modified leaf-lik structure called sporophylis
- It includes medium-sized trees and shrubs
- Examples are Thuja, Picae, Cycas e.t.c

Sub-division Angiosperma

They are flowering plants.
They are highly evolved group of plants
They are divided into 2 groups, Monocot and Dicot

2) Mineral Contents: Up to 5% of the wet materials in which all the mineral elements important in human and animal physiology are found. Makes sea weed a unique supplement to a well balanced diet

b) Source of Vitamins: The vitamins A, B and E are found abundantly in sea weeds. The vitamin B essentially required for the development of human body is found in great abundance in almost all Phaeophyceae

3) Unicellular form of Algae: Unicellular algae are plants like auto-trophs and Contain Chlorophyll. They include groups that have both multicellular and unicellular species. Diatoms unicellular algae that have siliceous cell walls. They are the most abundant form of algae in the ocean, although they can be found in fresh water as well. We also have Chlamydomonas which represents the unicellular and module form of green algae. It is found in Stagnant water

4) Reproduction; it can either be vegetative (asexual) or sexual. The vegetative reproduction results in daughter cells because the genetic materials contained in the mother cells are maintained in the daughter cells. While the sexual reproduction involves the mating and this pairing is isogamous because the gametes are morphologically identical.

Pandorina	Volvox
a) It has a unicellular motile thallus	It has a multicellular motile thallus
b) It's a genus of green algae	It's complex form is Pandorina
c) Its sexual reproduction is anisogamus	Its sexual reproduction is oogamus

6) Complex form of algae

FUCUS: It's a genus of the brown algae which are found in rocks of the sea shores. The body of the plant is flattened, dichotomously branched thallus with a mid rib. The body has air bladders which aids the plant to float. It varies in size from a few centimetres to about 2 meters in length.