

ALGAL REPRODUCTION

Ways of Reproduction

- **Vegetative**
- **Asexual**
- **Sexual**

Vegetative Reproduction

- **Binary fission in unicellular members**
- **Fragmentation in filamentous, non-colonial and multicellular forms**
- **Hormogonia in blue-green algae fragments exhibit gliding movement**
- **Auto colony formation in coenobic algae (miniature colony produced by a cell of a parent colony)**
- **Akinete**

Asexual Reproduction

- Zoospore by most aquatic forms
- Aplanospores by terrestrial forms
- Autospores by *Chlorella* sp.
- Hypnospores (thick-walled aplanospores)
- Endo and exospores in Cyanobacteria
- Monospores and Tetra spores in red algae
- Sporangiospores in brown Algae (unilocular/plurilocular)

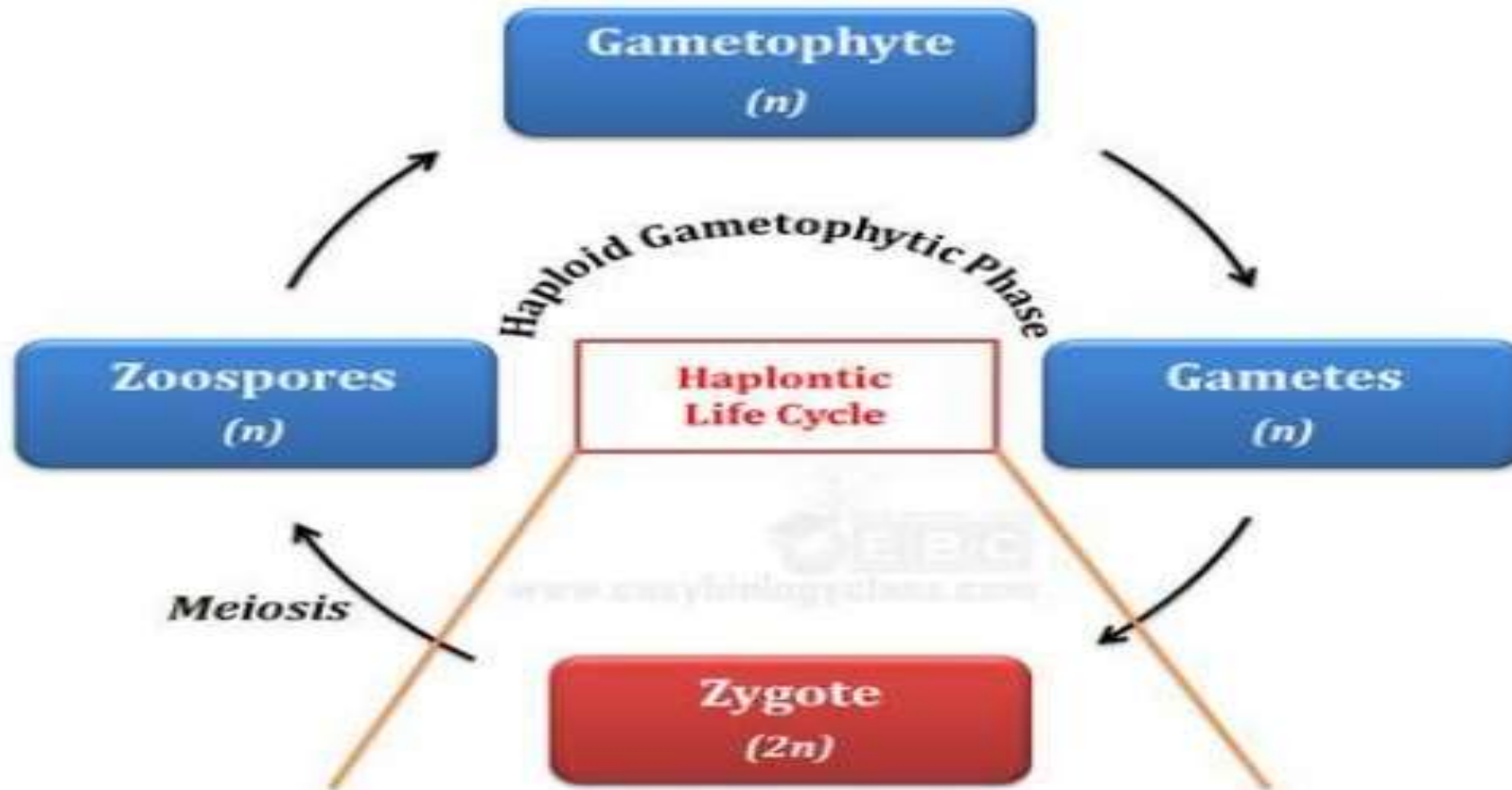
Sexual Reproduction

- **Plasmogamy**
- **Karyogamy**
- **Zygote formation**
- **Not observed in Cyanobacteria**

Life Cycles in Algae

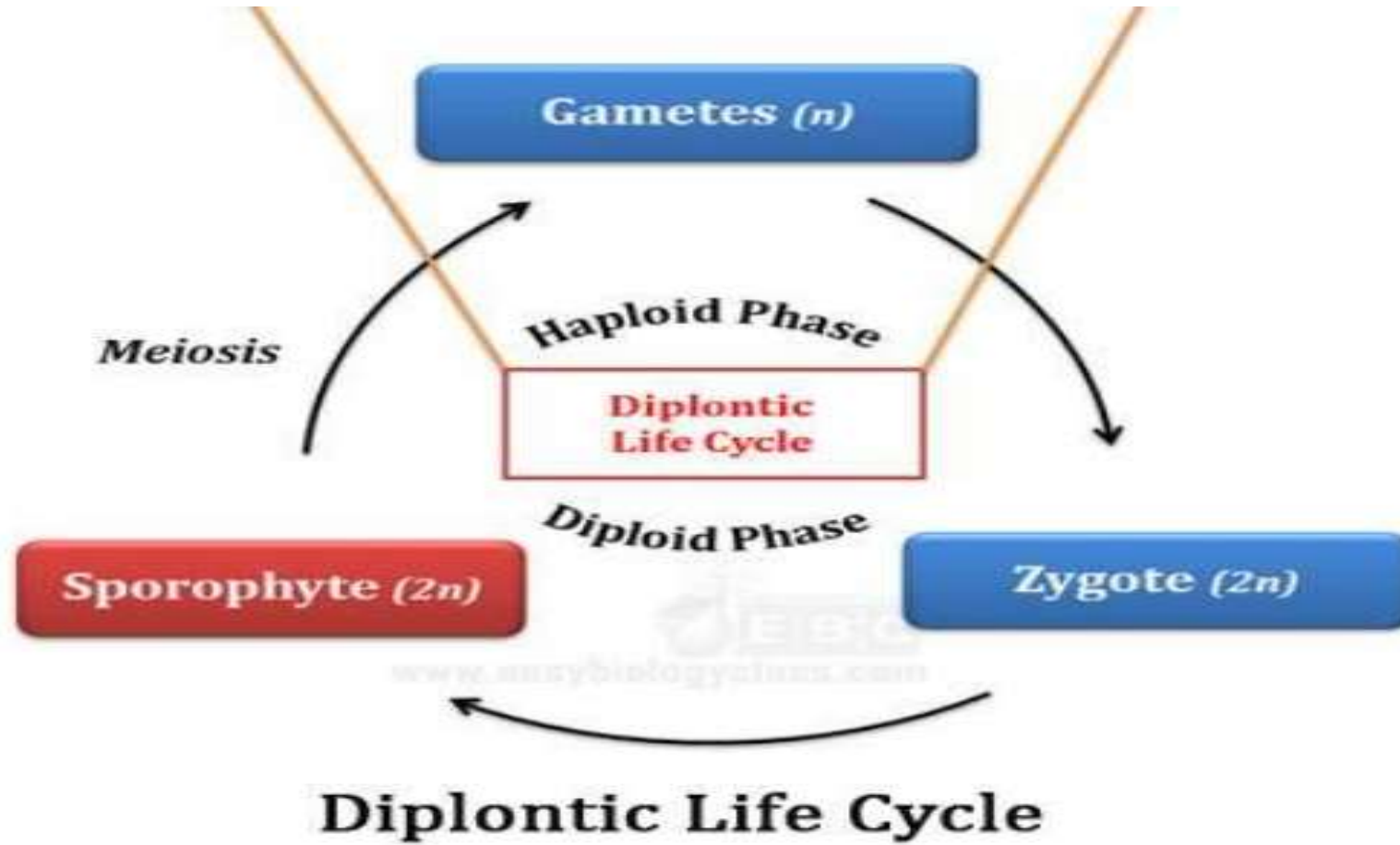
- 1. Haplontic – Parent haploid, zygote diploid**
Ex. Volvox, Oedogonium
- 2. Diplontic – Parent diploid, gametes haploid**
Ex. Xanthophytes, Diatoms
- 3. Haplo-diplontic – An alternation of diploid sporophytic and haploid gametophytic phase**
Ex. Cladophora
- 4. Haplo-biontic – Two haploid generations alternating with a diploid one represented by zygote**
Ex. Batrachospermum
- 5. Diplo-biontic – two diploid phases and one haploid phase alternating each other**
Ex. Polysiphonia

Haplontic life cycle

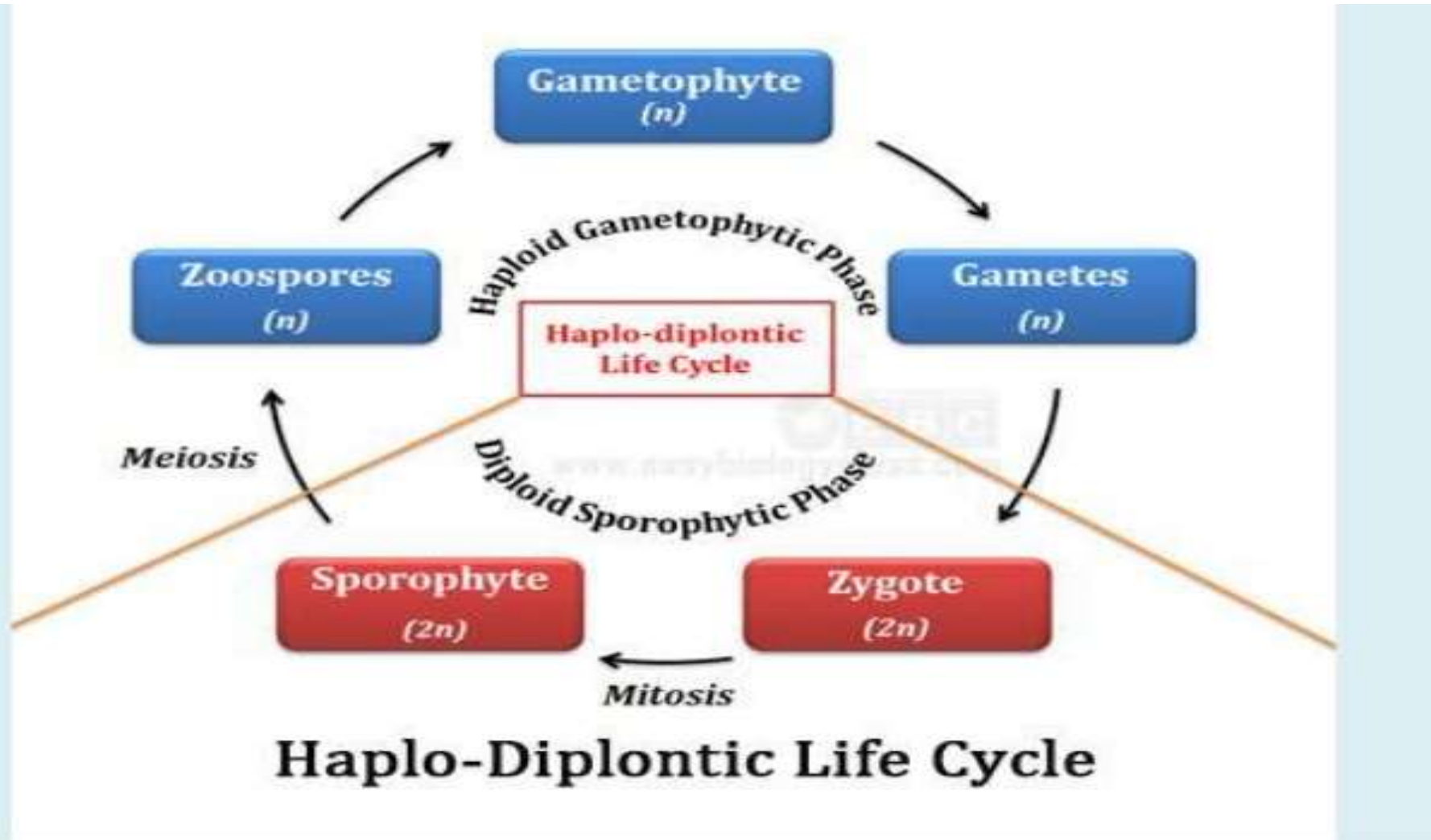


Haplontic Life Cycle

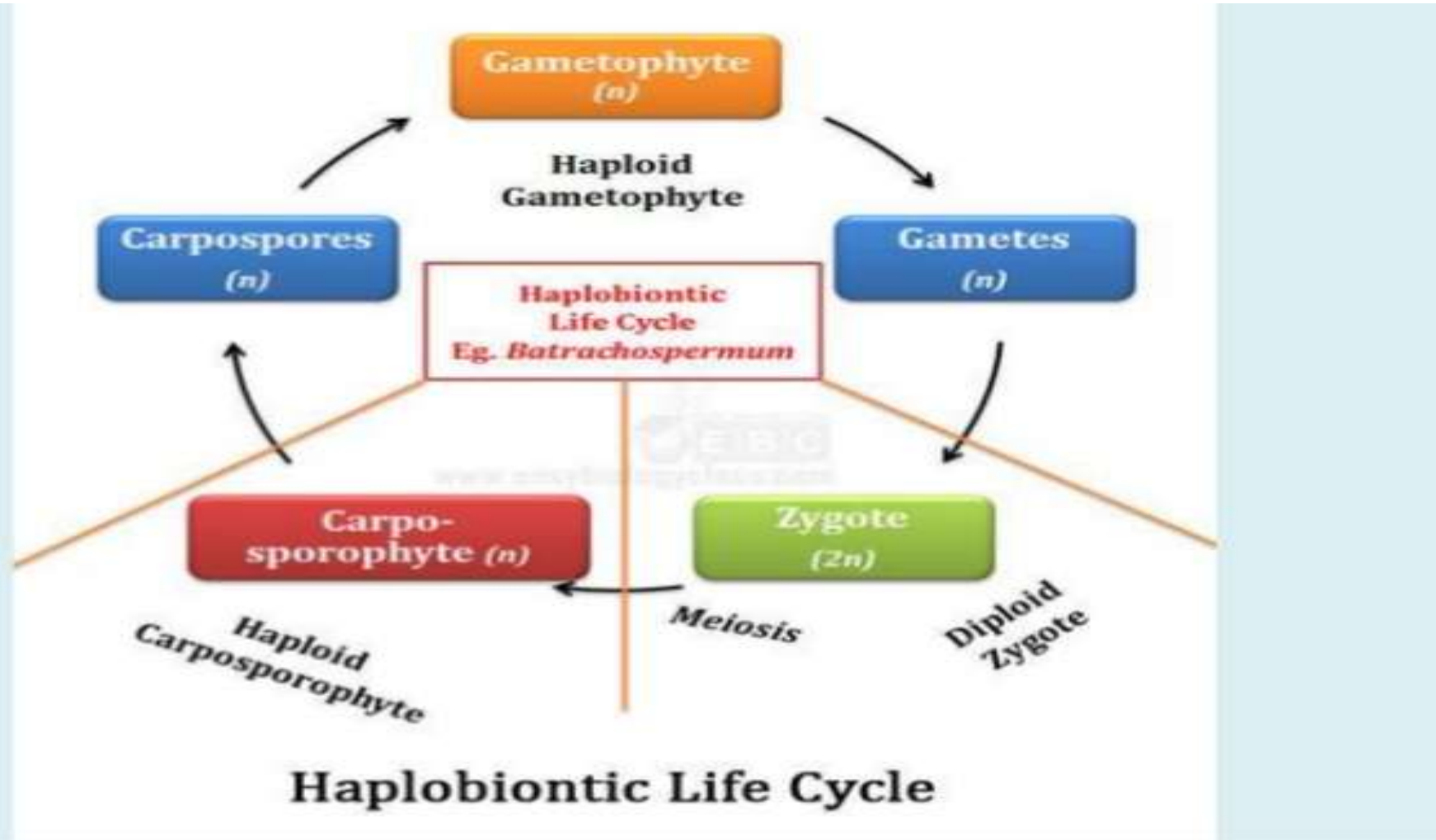
Diplontic life cycle



Haplo-diplontic life cycle



Haplo-biontic life cycle



Diplo-biontic life cycle

