

Sexual reproduction of ferns and mosses

Ferns:

Ferns are made up of 13,000 species. Most of them grow in temperate or tropical forests. These do not produce flowers so the reproduction is a little bit different



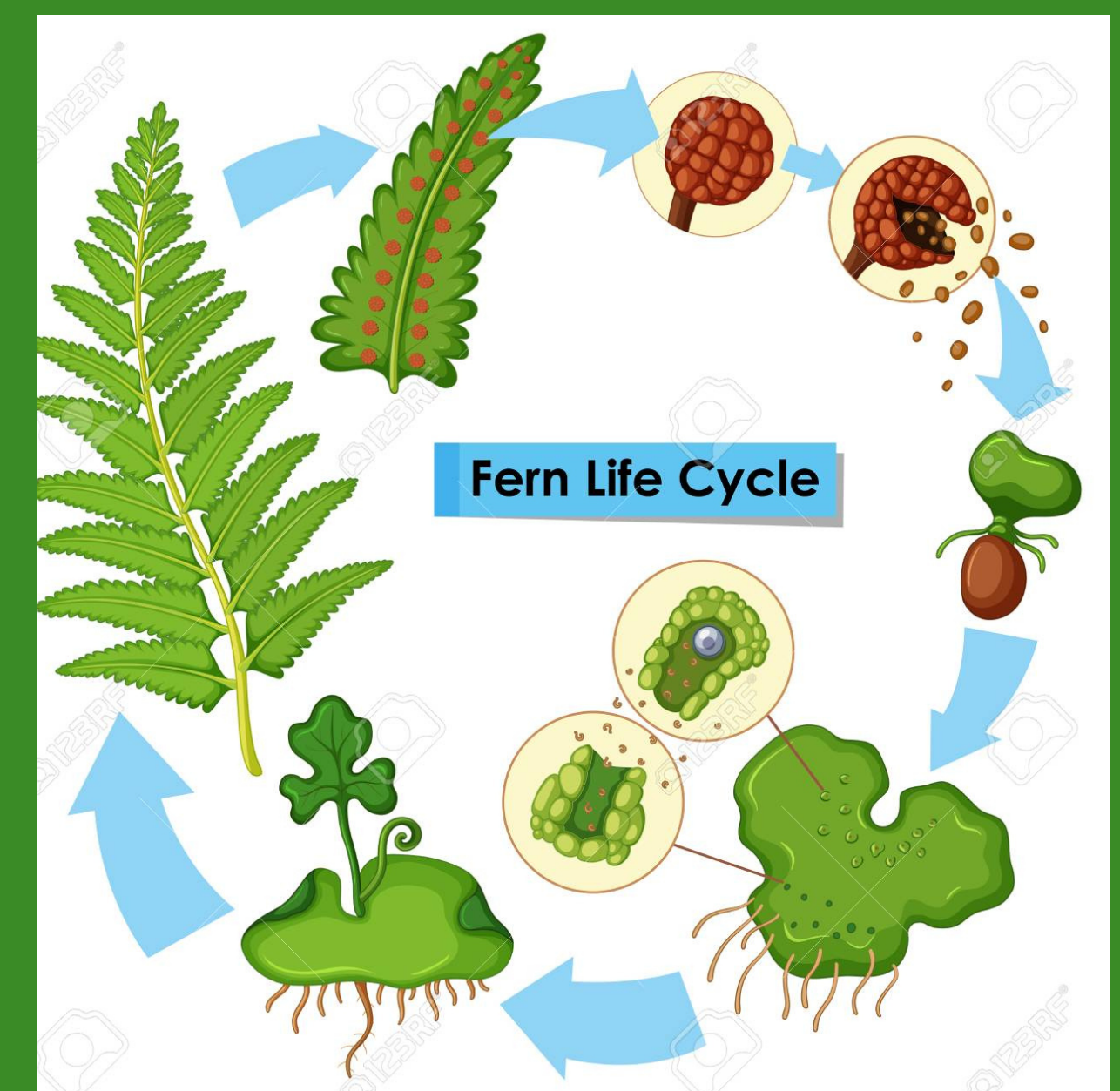
There are sporangia on the underside of fern leaves. These are small brown mounds which are protected by a "film".

They are grouped into what is called a sorus. When the sporangia are ripe, they open and release spores.

Each spore will germinate on the ground and become a prothallus.

The prothallus contains sperms and ovules. When it rains, sperms swim to the ovules to fertilize them.

After fertilization, the egg will grow into a new fern.



Mosses:

Without roots and lignin, their rhizoids allow anchoring to the substratum and, for some species, epiphytic life. They are devoid of conductive tissues comparable to those of seed plants.



Sexual reproduction involves specialized cells, the spores. At maturity, the capsule releases spores of two types. The spores fall to the ground and germinate. The germination of the spores results in the formation of leafy stems, gametophytes, capable of producing sexual cells, gametes. Transported by rain or dew water, the male gametes pass from the male gametophyte to the female gametophyte. Fertilization, that is to say the fusion of gametes, gives birth to a zygote. This single cell, positioned at the top of the female gametophyte, multiplies to form a new sporophyte

