PLANT ~ PART 8

ANGIOSPERM REPRODUCTION

Flowers, double fertilization, and fruits are unique features of the angiosperm life cycle.

ALTERNATION OF GENERATION

Diploid (2n) _____ produce _____ by _____; these grow into haploid (n) _____

Gametophytes produce haploid (n) _____ by _____; fertilization of gametes produces a _____

In angiosperms, the _____ is the dominant generation, the large plant that we see

The gametophytes are reduced in size and depend on the sporophyte for nutrients

The angiosperm life cycle is characterized by "three Fs": _____, _____, and _____

Development of Male Gametophytes in Pollen Grains

Pollen develops from _____ within the microsporangia, or pollen sacs, of _____

If pollination succeeds, a pollen grain produces a pollen tube that grows down into the ovary and discharges sperm near the embryo sac

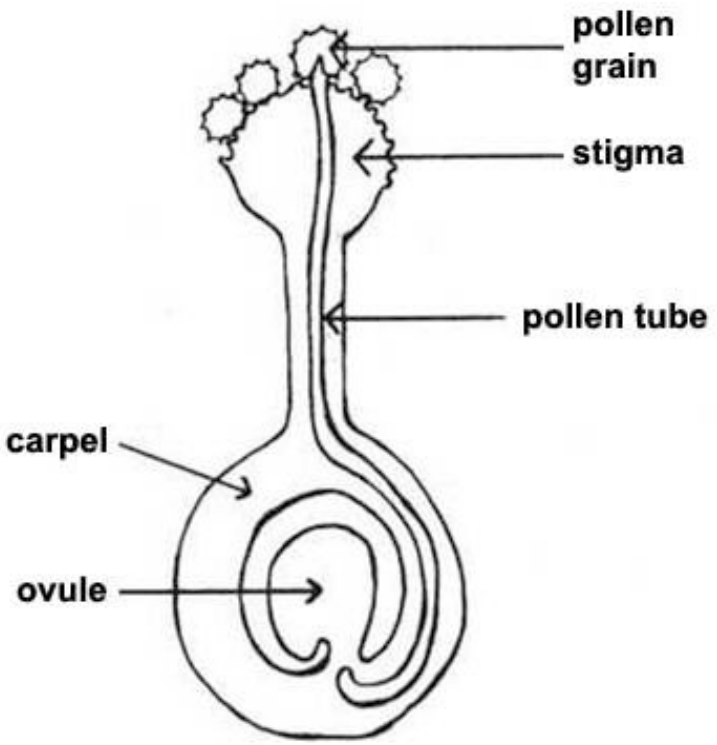
The pollen grain consists of the two-celled male gametophyte and the spore wall

Development of Female Gametophyte (Embryo Sac)

Within an ovule (of an _____), _____ are produced by meiosis and develop into embryo sacs, the female gametophytes

How do the gametes "get together"?

DOUBLE FERTILIZATION

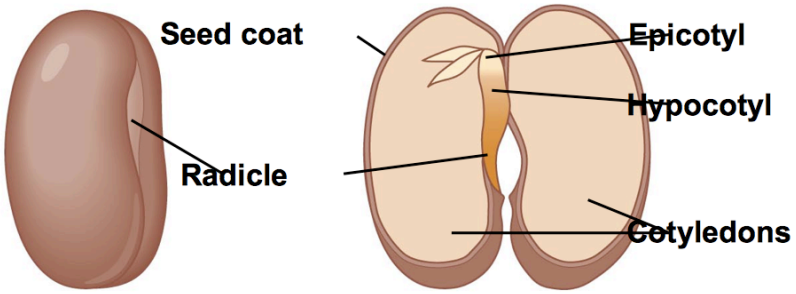


After double fertilization, each ovule develops into a _____

The ovary develops into a fruit enclosing the seed(s)

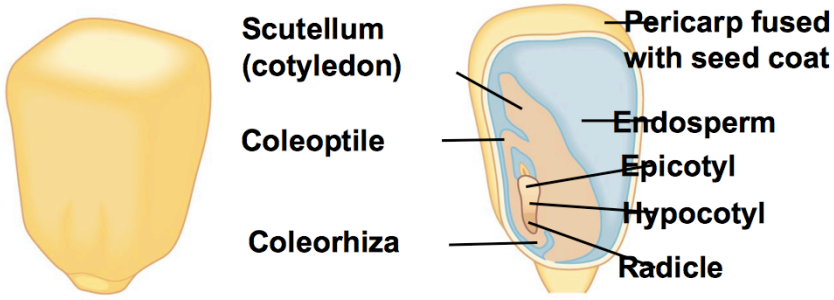
EMBRYO DEVELOPMENT

Fig. 38-8a



(a) Common garden bean, a eudicot with thick cotyledons

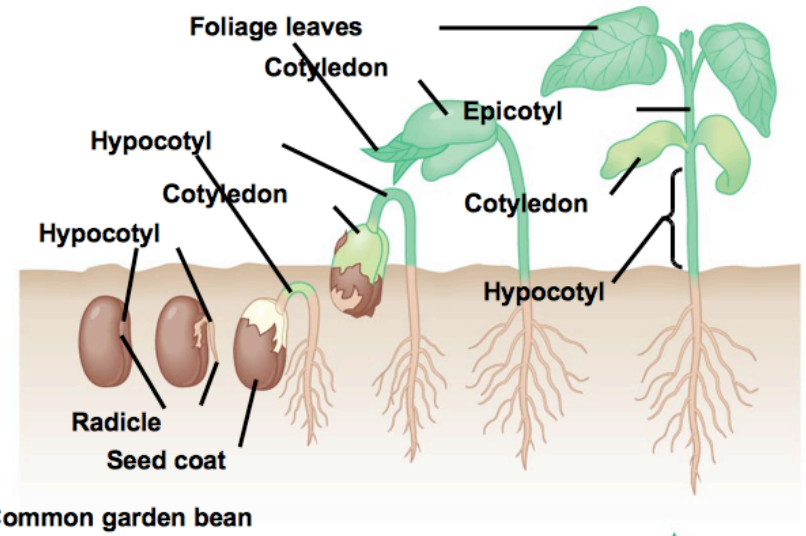
Fig. 38-8c



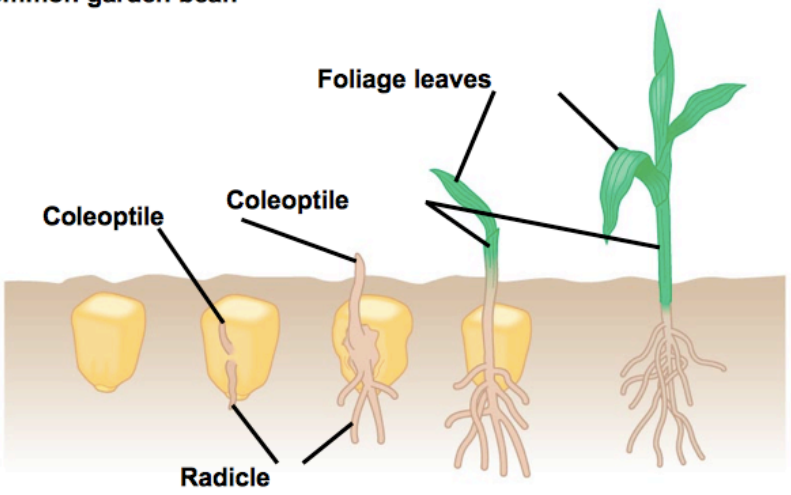
(c) Maize, a monocot

GERMINATION

Fig. 38-9



(a) Common garden bean



(b) Maize