

Seed Dispersal

And structure

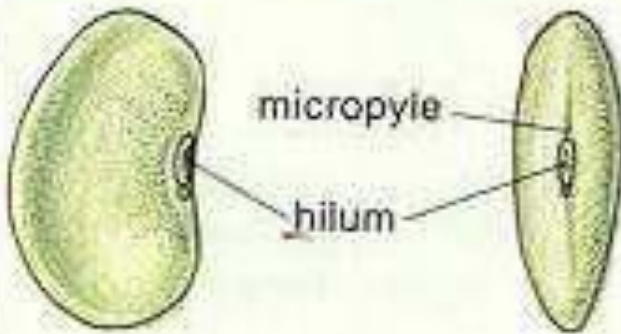
KEY CONCEPT

Seeds disperse
and begin to
grow when
conditions are
favorable.

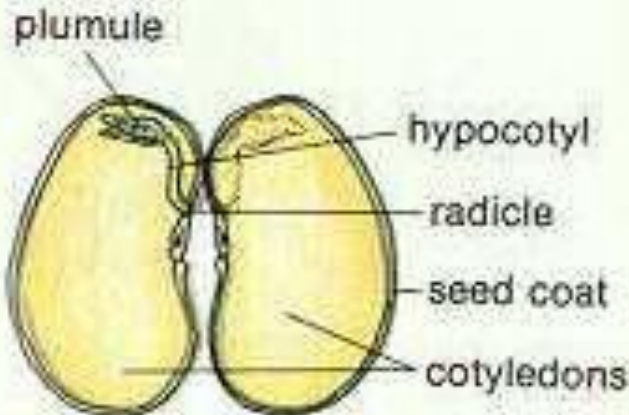


Seed structure

external



Internal

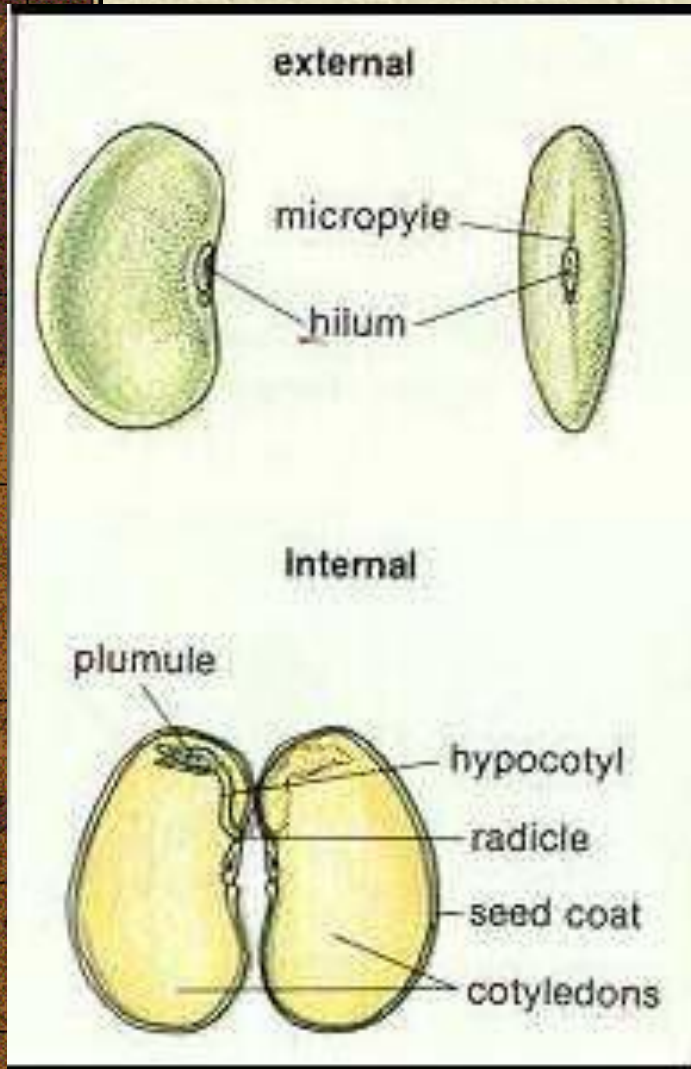


EXTERNAL –

✦ 1. Hilum –scar where the seed was attached to the pod.

✦ 2. Micropyle – Pore where pollen tube grew through the ovary.

Seed structure



INTERNAL

1) Cotyledon (endosperm) – store food that the developing embryo absorbs.

2) Embryo – consists of the following:

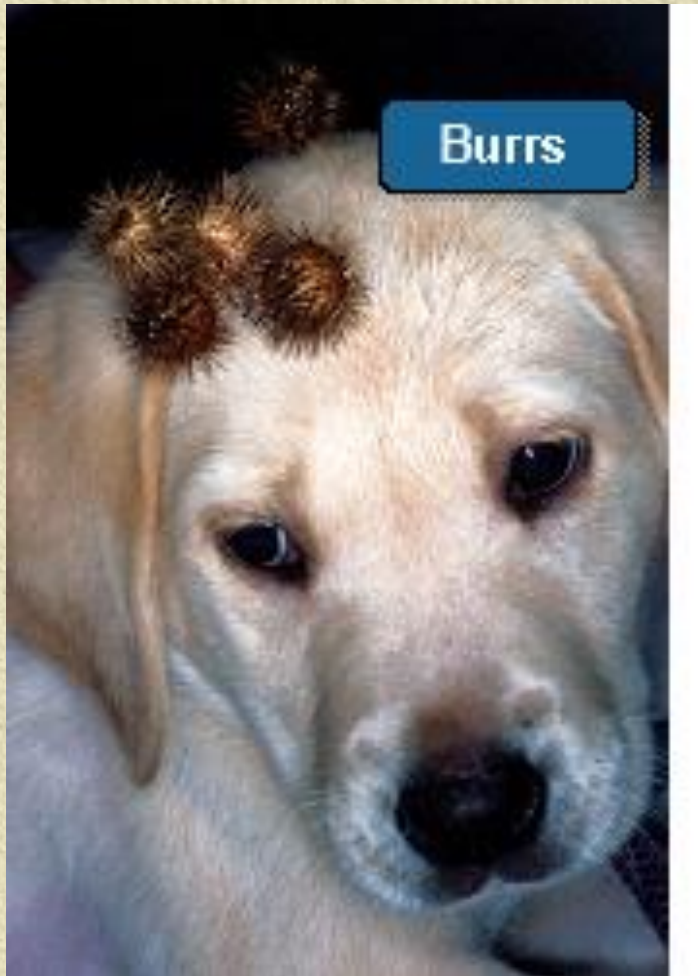
- ✦ a) Radicle – short root.
- ✦ b) Hypocotyl – stemlike area.
- ✦ c) Plumule – First pair of leaves.

Animals, wind, and water can spread seeds.



- Seeds dispersed by animals can have nutritious fruits that pass through the animals digestive system.

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✦ Seeds can be dispersed by fruits that cling to animals.

- Seeds dispersed by wind can have wing- or parachute-like fruits.

Cypselae



Double samaras



- Seeds dispersed by water can have fruits that float.



Seeds begin to grow when environmental conditions are favorable.

- ✦ Seed dormancy is a state in which the embryo has stopped growing.
 - Dormancy may end when conditions are favorable.
 - While dormant, embryo can withstand extreme conditions.





Germination begins the growth of an embryo into a seedling.

- water causes seed to swell and crack coat
- water activates enzymes that help send sugars to embryo
- embryonic root, radicle, is first to emerge



◆ embryonic shoot,
HYPOCOTYL, emerges next



◆ leaves emerge last



✦ Once photosynthesis begins, the plant is called a seedling.

