Botany

Department of Environment

The first stage

Fruits and Seed

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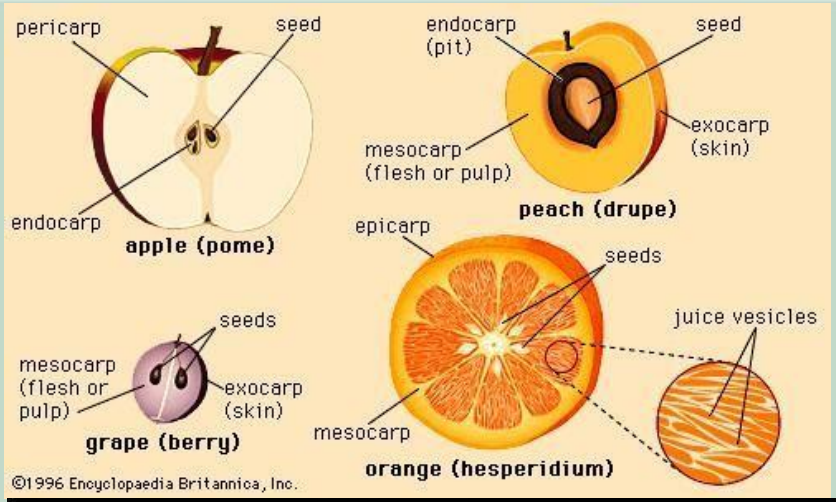
Fruits

Functions:

1. Protect developing seeds (physical barrier between immature seeds and the environment)
2. Aid in dispersal of mature seeds

Fruits: Morphology

- Pericarp (fruit wall)
  - Exocarp (skin)
  - Mesocarp (flesh)
  - Endocarp (pit)
- Placenta (the part of the ovary to which the seeds are attached)
- Seed (mature ovule, contains embryo and, in angiosperms, endosperm)



Fruits

- Matured, seed-bearing ovaries of flowers
- Nearly as varied in color, form, size, texture, and number as flowers
- Can be used as the distinguishing characteristic of a species or cultivar
- Divided into four large categories
  - Dry or fleshy
  - Dehiscent (splitting open) or indehiscent

Dry Fruits

- Achene (i)
- Nut (i)
- Caryopsis (i)
- Capsule (d)
- Legume (d)
- Follicle (d)

Fleshy Fruits

- Simple
  - Drupe (i)
  - Berry (i)
  - Pepo (i)
- Compound
  - Aggregate (from separate carpels of one flower, eg., blackberry, strawberry) (i)
  - Multiple (from pistils of several clustered flowers, eg. , pineapple, mulberry) (i)

Seeds

- Have an outer coat (**testa**), usually tough
- Angiosperms have nutritive tissue (**endosperm**)
- Contain an **embryo**, which, upon germination, develops into a new plant
- Range in size from dust-sized to bigger than the head.