Remember: Fruit = mature ovary. Pictured below is one kind of dry fruit—a legume.

Note: As the pericarp develops, it often differentiates into distinct layers, the exocarp, mesocarp, and endocarp (oft. most conspicuous in fleshy fruits).
Layers of the pericarp

- Exocarp: outermost “skin”
- Mesocarp: in the middle
- Endocarp: innermost layer, closest to the seed

2 main kinds of fruit: dry vs. fleshy

<table>
<thead>
<tr>
<th>Figure 38.9 Classification of Fleshy Fruits</th>
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<tr>
<td>One carpel / one flower</td>
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There are 3 main kinds of simple fruits...
Berry: All parts of pericarp are fleshy/pulpy except for exocarp (skin)

This grape is a berry.

A pepo is a berry with a thick, inseparable rind.

Drupe (stone fruit): Usually one-seeded with a stony endocarp, fleshy mesocarp, and a thin and skin-like exocarp.

A hesperidium is a berry with a leathery, separable rind.
Pome: develops from flower with inferior ovary and compound pistil. Receptacle / floral tube becomes major fleshy part of the fruit.

Dry fruits: dehiscent vs. indehiscent. Dehiscent fruits split open at maturity. Indehiscent fruits do not split open at maturity.

Angiosperms: Phylum Anthophyta, the flowering plants
1. Overview of seed plant evolution
2. Traits of flowering plants
3. The angiosperm life cycle
4. Pollen and seed (fruit) dispersal (continued)
Fruit and Seed dispersal

- Fruits protect seeds during development and sometimes aid in their dispersal.
- Fleshy fruits or seeds are adapted to animal dispersal.
- Dry fruits can be adapted to air or water dispersal, animal dispersal, or to release the seeds at maturity.
- Seeds themselves often have their own dispersal-adapted morphology, and adaptations for survival and germination.
Some fruits, such as these burrs, hitch a ride on the fur of animals.

The seeds of many plants have elaiosomes—fleshy attachments which attract ants. Ants carry the seeds back to their nests, eat the elaiosome, and often discard the seed. (One example is our native wild ginger, *Asarum caudatum*).

Don’t forget: many plants also reproduce asexually. Two examples: the maternity plant (*Kalanchoe*, left), aspen (*Populus*) groves (right).

Figure 38.7 The development of a dicot plant embryo.