# Honors Biology Chapter 23 Student Notes

Pollination

* Pollination occurs when the pollen grain from one species of a plant lands on the female reproductive structure of a plant of the same species.
* The pollen grain is trapped in a sticky substance called the pollen drop

Flower Organs



* Flowers are the reproductive structures.
* Flowers have several organs that provide protection or support, or are involved in the reproductive process.
* There are basically four structures—sepals, petals, stamen, and pistils.
* Sepals may be green and look like leaves and petals.
* Petals attract animal pollinators and provide a landing pad.
* Sepals and petals open and close to protect the reproductive parts of the flower.
* Most flowers have several stamen—the male reproductive organ—surrounding the central part of the flower.
* The filament stalk supports the anther, which contains the pollen grains.

Flower Adaptations

* Structural differences
* Flowers that have sepals, petals, stamens, and one or more pistils are called complete flowers.
* If a flower is missing one or more of these organs, it is an incomplete flower.
* Flowers that have both stamens and pistils are called perfect flowers.
* An imperfect flower has either functional stamens or pistils.
* The number of flower organs distinguishes dicots and eudicots from monocots.
* Monocots generally have multiples of three.
* When the petal number is a multiple of four or five, the plant is either a dicot or a eudicot.
* The number of other organs often is the same multiple of three, four, or five.

Pollination Mechanisms

* Flower adaptations that relate to pollination include flower size, shape, color, and petal arrangements.
	+ Animal pollination
	+ Wind pollination
	+ Self pollination