

Chapter 3: Flower - Structure and Functions

Introduction

A flower is the reproductive part of a plant. Bisexual flowers contain both male and female reproductive organs. Flowers can be **complete** (having all four whorls: sepals, petals, stamens, and carpels) or **incomplete** (missing one or more whorls).

Structure of a Bisexual Flower

A bisexual flower has the following parts:

1. **Essential Whorls** (directly involved in reproduction):
 - **Androecium (Stamens)**: Male reproductive part. Consists of:
 - **Anther**: Produces pollen grains.
 - **Filament**: Supports the anther.
 - **Gynoecium (Carpels/Pistils)**: Female reproductive part. Consists of:
 - **Stigma**: Receives pollen.
 - **Style**: Connects stigma and ovary.
 - **Ovary**: Contains ovules.
 2. **Non-Essential Whorls** (help protect and support):
 - **Calyx (Sepals)**: Green, leaf-like structures protecting the bud.
 - **Corolla (Petals)**: Brightly colored to attract pollinators.
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Inflorescence and Placentation

- **Inflorescence**: The arrangement of flowers on the floral axis.
 - **Placentation**: The arrangement of ovules within the ovary.
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Summary

A bisexual flower has both male (androecium) and female (gynoecium) parts. Complete flowers have all four whorls, while incomplete flowers lack one or more. The essential whorls are responsible for reproduction, while non-essential whorls provide support and protection. Inflorescence and placentation refer to the arrangement of flowers and ovules, respectively.

Using charts or specimens enhances the understanding of these concepts.

