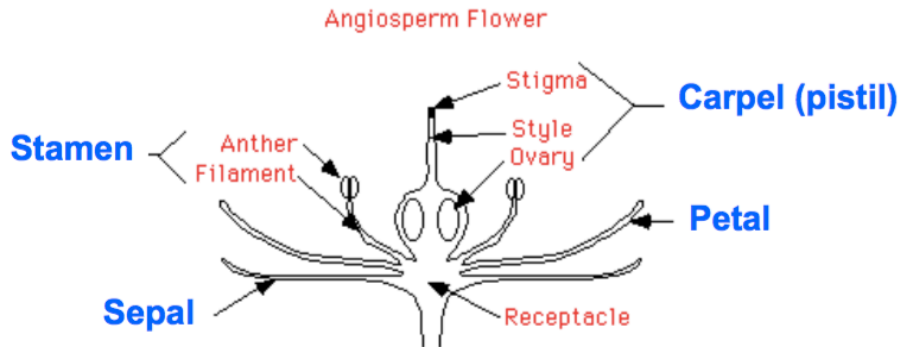


- Dicotyledonous plant structure (Arabidopsis flower structure)



- Sepals: green 'leaf', protection
- Petals: coloured 'leaf', attract pollinators, assist pollination
- Stamens: male part, composed of a filament and anther. Releases pollen
- Carpels: female part, composed of a stigma, style, and an ovary containing ovules

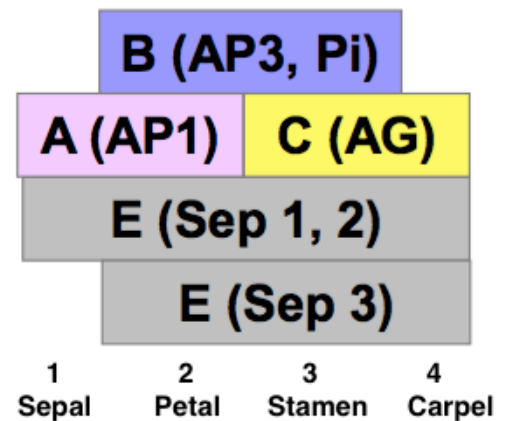
- The ABCE model classes

- Class A genes
  - APETALA 1 (AP1)
  - APETALA 2 (AP2)
- Class B genes
  - PISTILLATA (PI)
  - APETALA 3 (AP3)
- Class C genes
  - AGAMOUS (AG)
- Class E genes
  - Sepallata mutants (Sep 1, 2, 3)

- The ABCE model

- Wild type
  - Class A genes form Sepals
  - Class A + B genes form Petals
  - Class B + C genes form Stamens
  - Class C genes form Carpels
- A and C are competitive – if 1 is mutated, the other takes over
- Single mutant
  - A mutant → C, St, St, C plant
  - B mutant → S, S, C, C plant
  - C mutant → S, P, P, S plant
- Double mutant
  - AxB mutant → C, C, C, C
  - BxC mutant → S, S, S, S
  - AxC mutant → Leaf-like, Petal-Stamen, Petal-Stamen, Leaf-like
- Triple mutant: AxBxC
  - All 4 whorls show leaf characteristics BUT still in the shape of a flower
  - E class still expressed

## The ABCE model



1	2	3	4	4	3	2	1
1	2	3	4				
s	p	st	c				
							whorl
							organ