

Asexual vs Sexual

Friday, 8 April 2022 12:50 pm

* Definition

Asexual reproduction is the production of **genetically identical** offspring from 1 parent

↳ hence **no fusion** of gametes

Sexual reproduction one from male, one from female

involves fusion of **2 gametes** to form zygote

↳ this makes offspring different

Asexual
no fusion of gametes

only 1 parent

same DNA

faster than sexual

Sexual
use male and female gametes

to form zygote

2 parents required

genetically different

slower method

need to pollinate/carry by wind

more variation →

may inherit better qualities

↓
better adapted to changes in environment

Structure of flower

Friday, 8 April 2022 1:14 pm

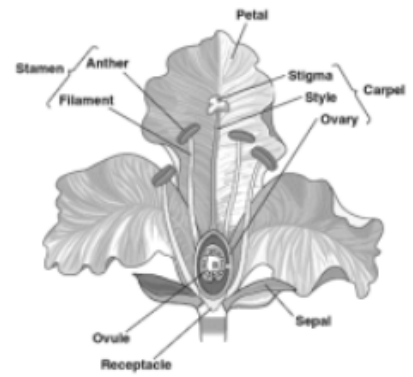
Consist of petals, sepal, stamen and carpel

Petals

Brightly coloured in insect pollinated plants

gives insect a place to land on

may also have nectar guides to lead the insect to the base of the flower where nectar is stored



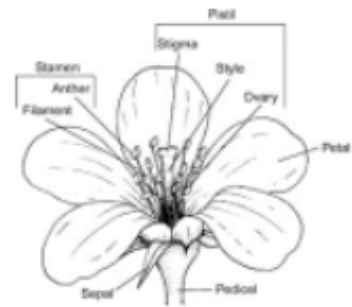
Sepals

usually green in colour

leaf like structure

function: protect flower during bud stage

before flower mature/bloom



stamen (male part)

Consist of anther + filament

pollen grains produce (male gametes)

in wind pollinated flowers stamen is pendulous with long filament and hang downward

carpel/pistil (female part)

consist of ovary, vagina and a stigma

ovary has ovules (inside has egg cell (the female gamete))

ovule will develop into seed and ovary develop into fruit after fertilization

style holds the stigma upright

stigma receives the pollen grain during pollination

↳ it is hairy if it is wind pollinated to catch pollen grain



hairy

easier
to carry by
wind

Self vs Cross pollination

Friday, 8 April 2022 1:56 pm

Self pollination

transfer of pollen grain from the anther to same plant

Cross pollination

transfer of pollen grain from the stamen to

