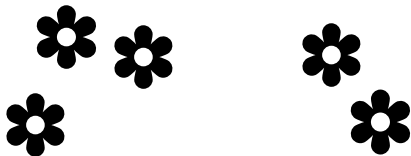


What is speciation?

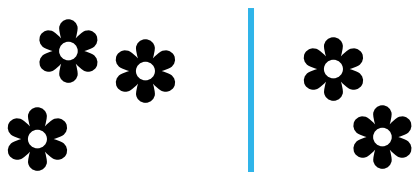
Genetic variation within a population can lead to natural selection and over time, new species can form.

There are different ways this can happen.

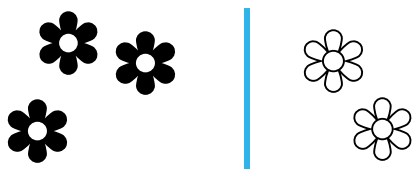
Allopatric



A population of a species of plant is separated by a physical division – the sea rises and cuts off some of the population on an island. They are reproductively isolated.

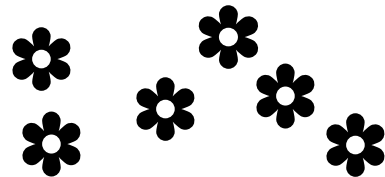


Different pressures on either side of the division cause different traits to be selected for, and over time the populations become different (diverge)

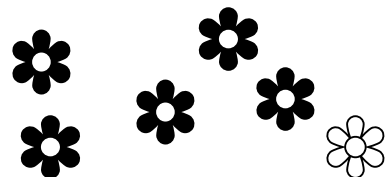


The two populations are now so different that if they were reunited they would be unable to interbreed

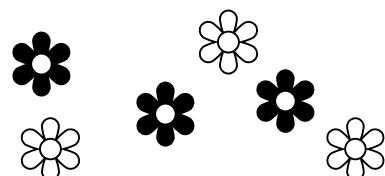
Sympatric



A mutation leads to an advantageous allele in an individual within the population of a species of plant.



This individual reproduces and passes on the allele, and over time the advantageous gene becomes widespread and a sub-population develops.



The sub population is now so different that the two populations are unable to interbreed