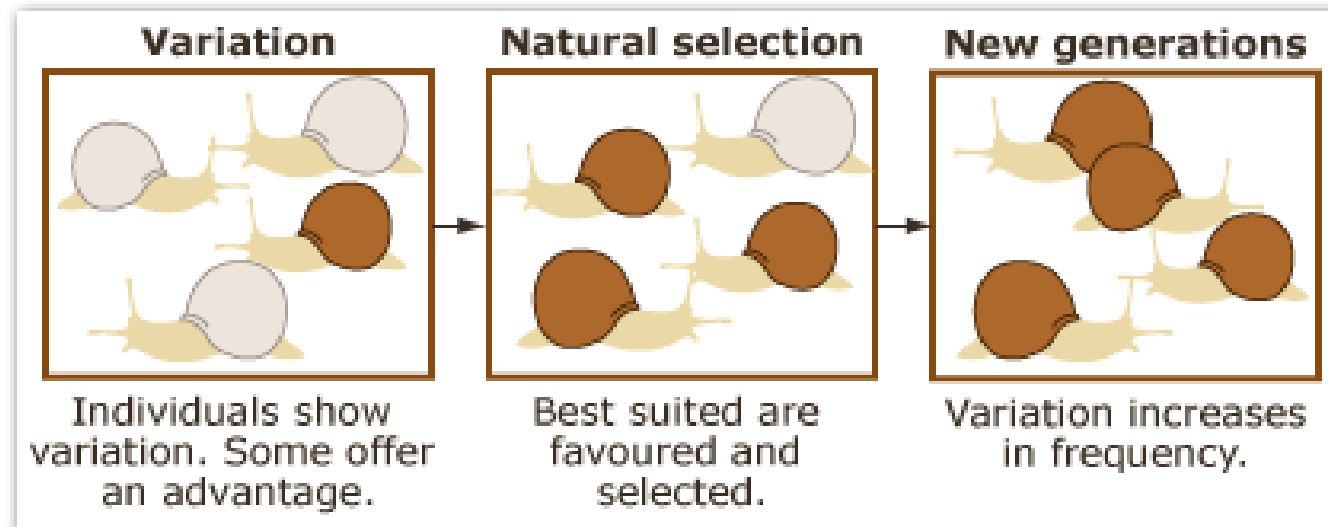


Mechanisms of Evolution

- These mechanisms require **VARIATION** in populations that occur because of random **MUTATIONS** and crossing over in meiosis. (sexual reproduction)
- All of these mechanisms can cause a change in allele frequencies.
- Points to remember
 - *Populations evolve, individuals do not.*
 - *Variation allows some individuals to survive even if the environment changes.*

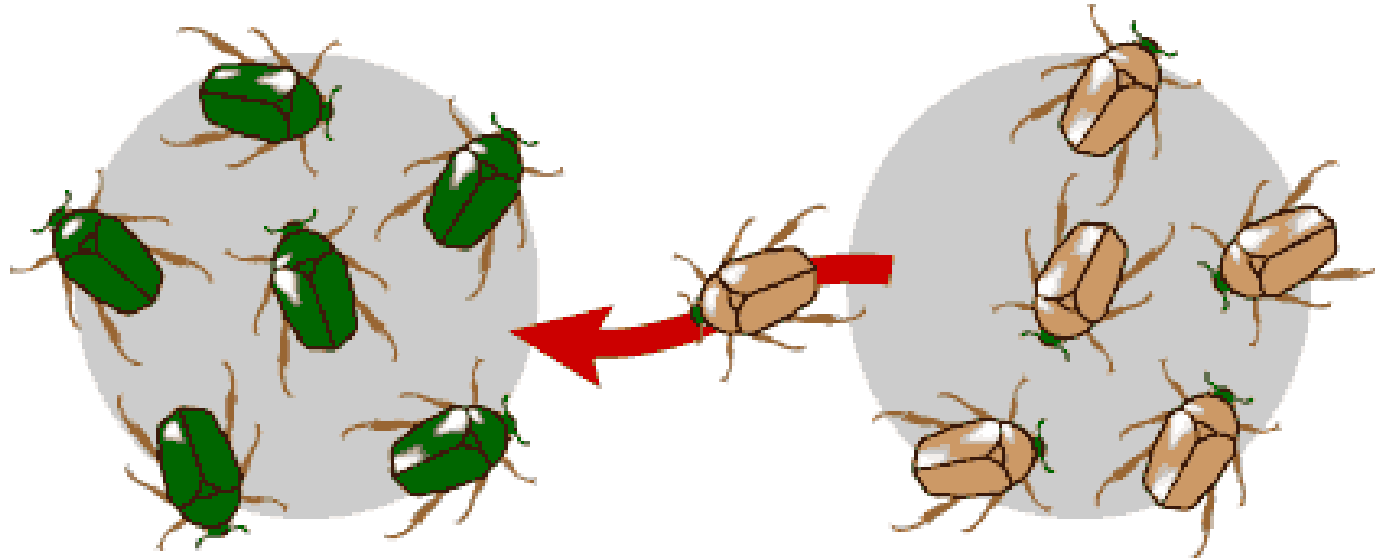
NATURAL SELECTION

- A variation gives individuals more fitness so they have more offspring and pass that variation down to the next generation.



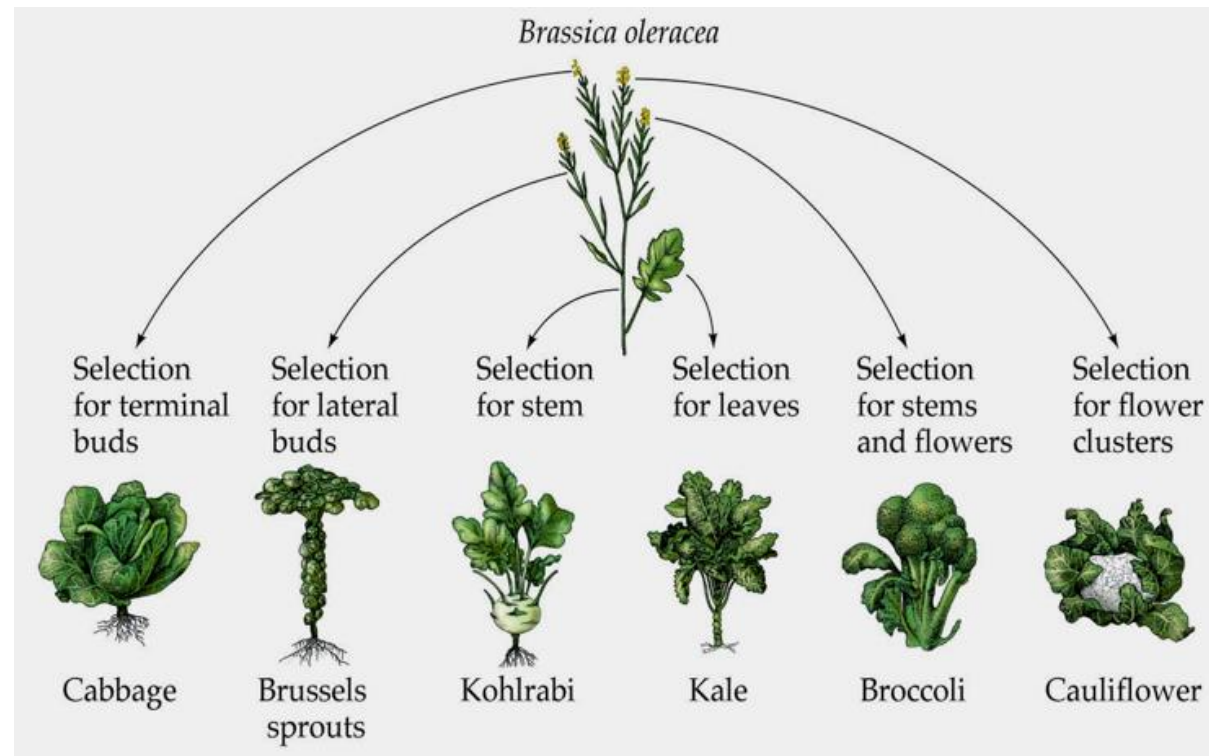
GENE FLOW

- Individuals move into or out of a population.



ARTIFICIAL SELECTION

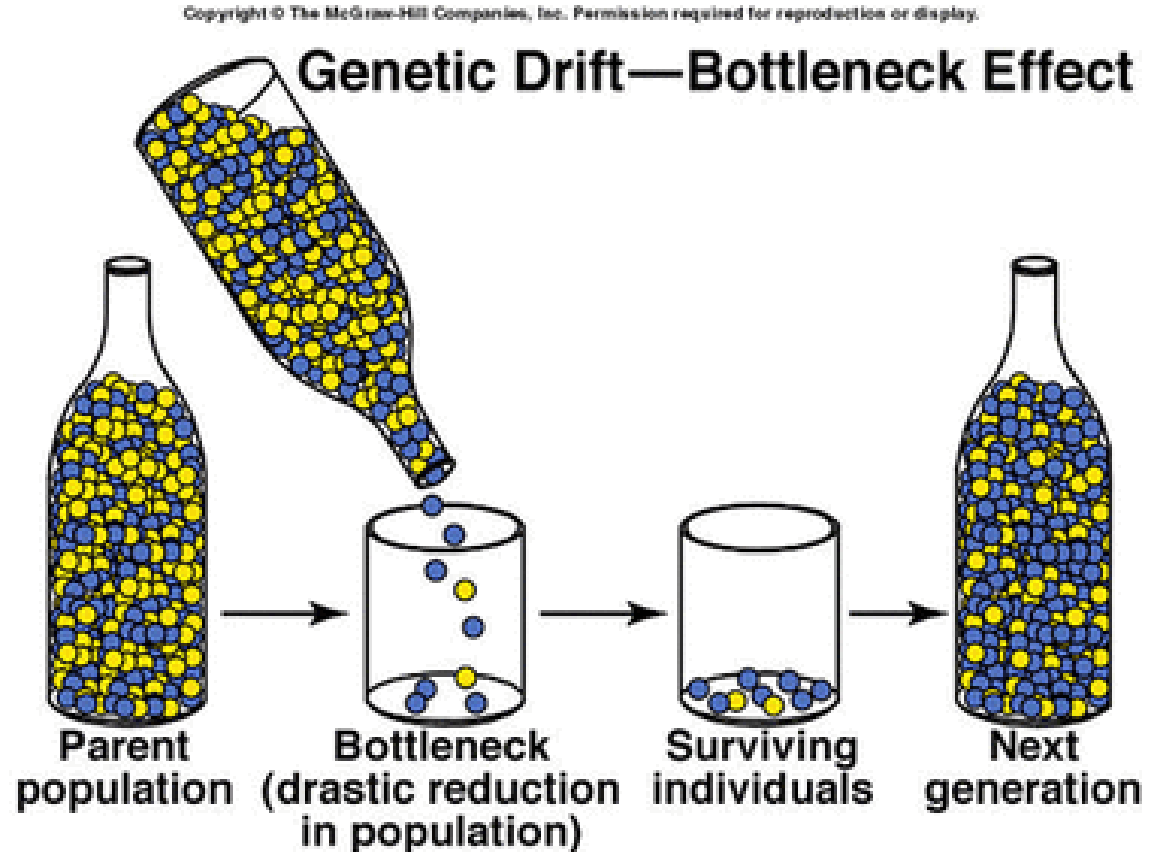
- Humans select the traits they want in the next generation.



GENETIC DRIFT

- **Bottleneck Effect**

- A population suddenly gets much smaller



GENETIC DRIFT

- **Founder Effect**

- A few individuals start a new population.

- founder effect: a few individuals from a population start a new population with a different allele frequency than the original population

