Evolution is the result of random mutations in DNA!

1) > Some mutations lead to advantageous changes

2) > Organisms with these changes are more "fit" and live to pass on their DNA → How well something will do in its environment.

3) > If this pattern continues over many generations, a new species can be formed!

http://genetics.thetech.org/online-exhibits/genes-common

Observations Aboard the Beagle

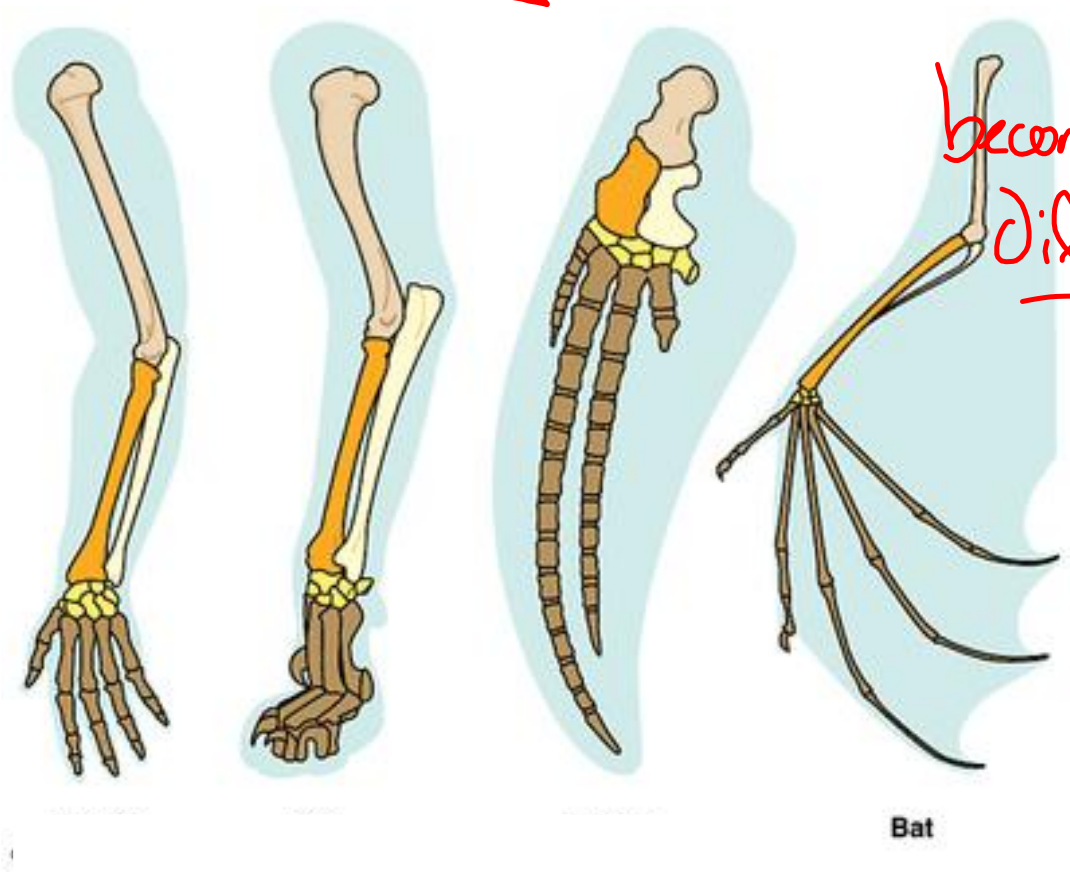
1) Species vary locally (Divergent evolution)

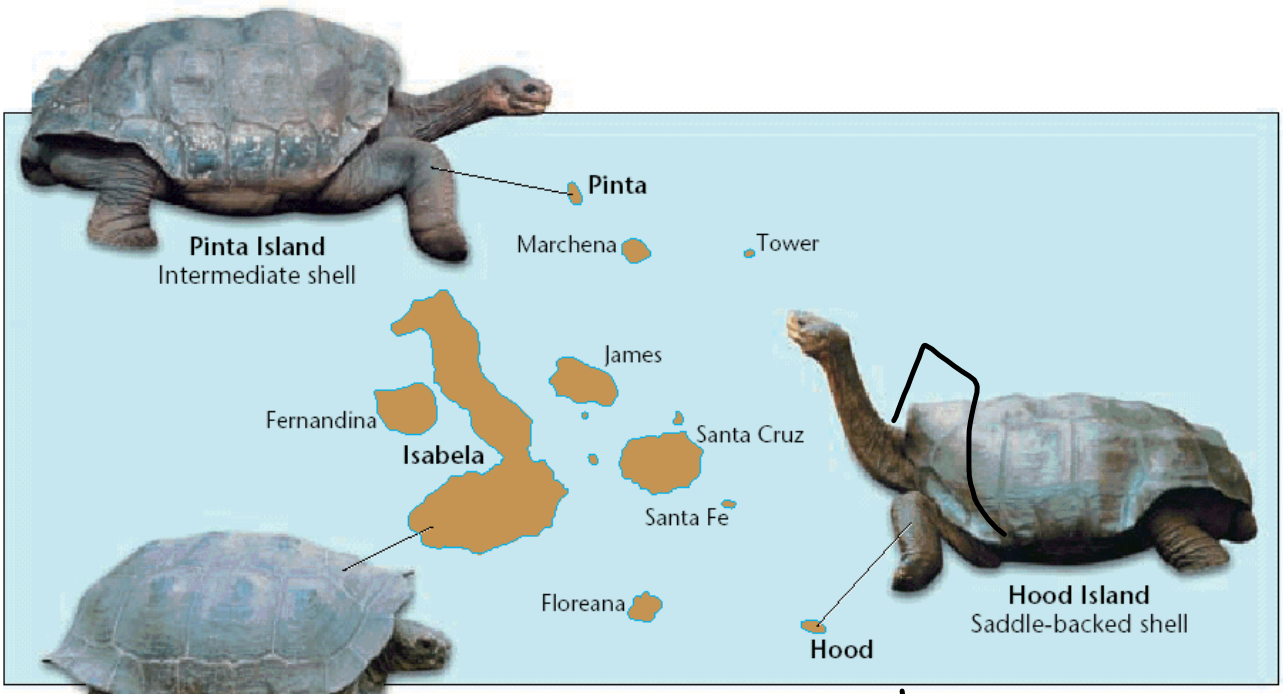
2) Species vary globally (Convergent Evolution)

Species vary locally (Divergent evolution)

› Closely related organisms evolve with differences in different environments

becoming different





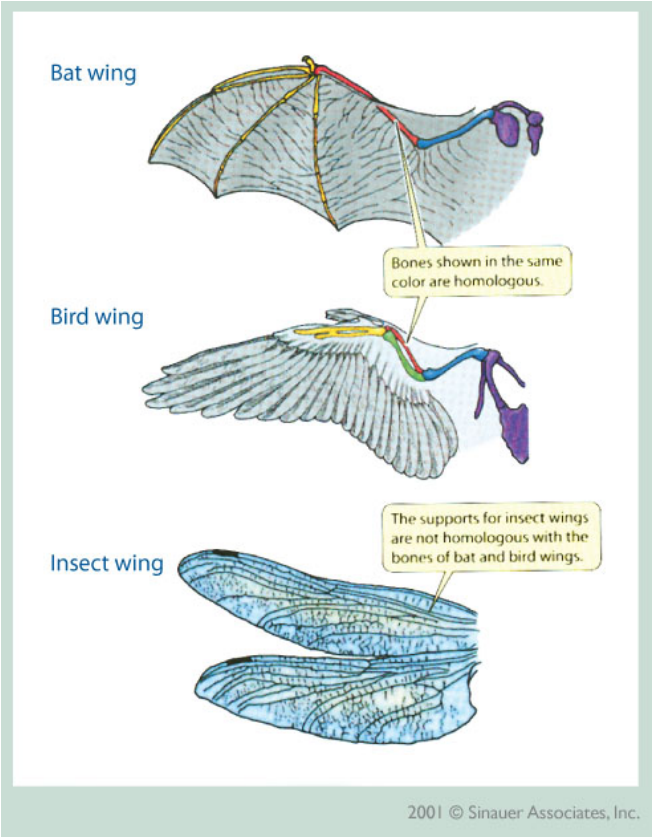
plants - low growing.

plants - high growing

Species vary globally (Convergent evolution)

- Distantly related organisms in similar environments evolve with similar characteristics

come together.



mammal

bird

insect.

shark

fish

ichthyosaur

reptile

dolphin

mammal