

# The Modern Theory of Evolution

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# Do Now

- What did Lamarck believe?

# Darwin's Journey



# The Galapagos Islands

- Volcanic islands off the South American coast
- **Island species varied from the mainland species, and from island-to-island**
  - Example: Each island had either long or short necked tortoises depending on the island's vegetation (Their shells also varied)

# Finches!

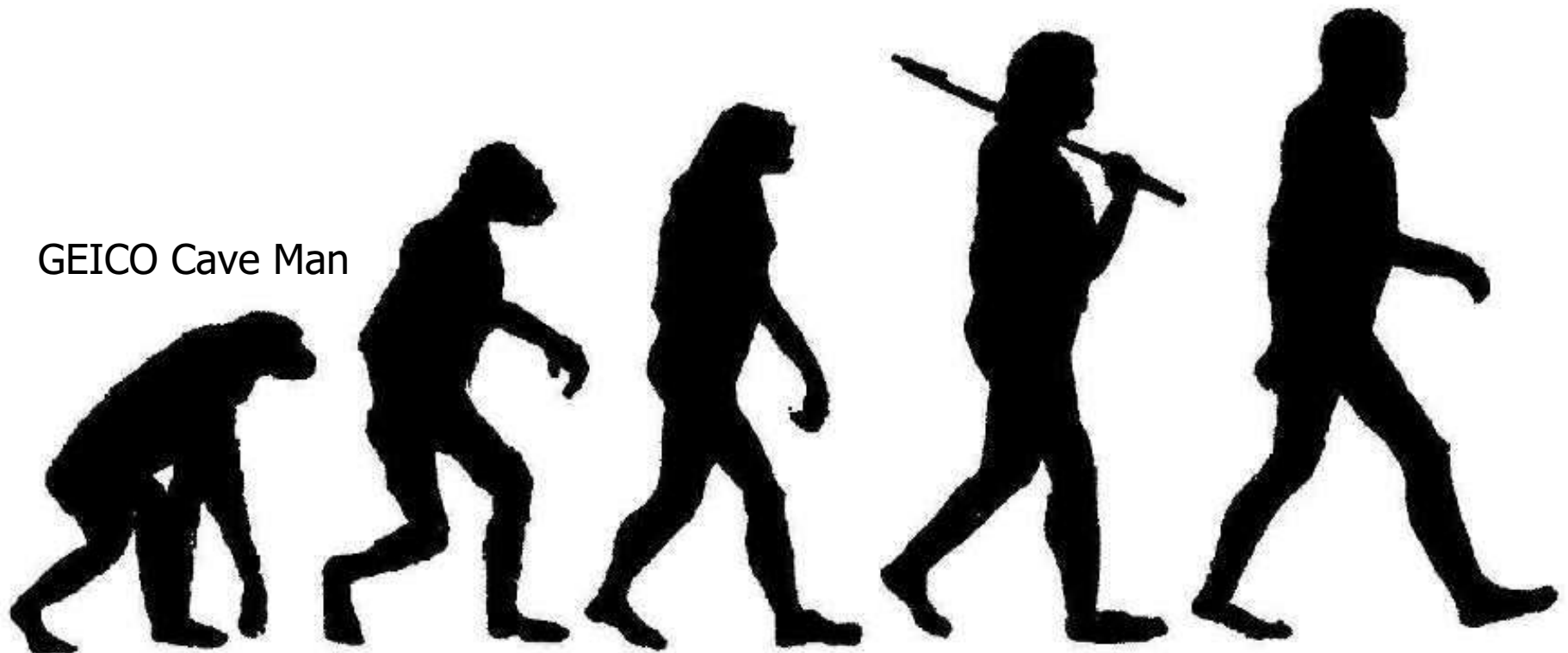
- Finches on the Galapagos Islands resembled a mainland finch, but there were more types
- Bill shapes are adaptations to different means of gathering food.
- Galapagos finch species varied by nesting site, beak size, and eating habits.

ABOARD THE "BEAGLE," DARWIN SPENT FIVE WEEKS EXPLORING THE GALAPAGOS ISLANDS



# Think BIGGER!

- **Newer species are just descendants of older species**



GEICO Cave Man

# Why are there different species?

- Darwin believes that once the organisms got to the island they reproduced, and eventually their offspring became different than the original mainland animals
- **Evolution is linked to genes that are passed on through reproduction!**



# Adaptation

- Adaptation - is a trait that helps an organism be more suited to its environment



# How and When do These Changes/Adaptations Occur

- Evolutionary changes occur over time
- **Evolutionary change only occurs in the genes of sex cells**
- Adaptations can be in structure, function, and behavior over time

# Question of the Day

- Why do you think a species would change?
  - Why are there different turtles on the Galapagos Islands?
  - Why are there different Finches on South America and the Galapagos Islands?

# Natural Selection

- Natural Selection = Survival of the Fittest
- This is the major idea to the modern theory of evolution

**you are the weakest link..**



**good bye!**

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# Natural Selection Cont.

- The environment acts as the selecting agent
- Natural occurring variations among members of a population make some of them better adapted to the environment to survive.

# Homework

- Finish Worksheet