

# Warm up 1/15-1/16

1. Take out your laptop and data tables/graphs from Monday's lab.
2. Log in to Google Classroom
3. Discuss your answers to the Post- Lab Google Classroom questions you were assigned for homework!

**\*We will be discussing as a class after  
5 minutes.\***

# Agenda

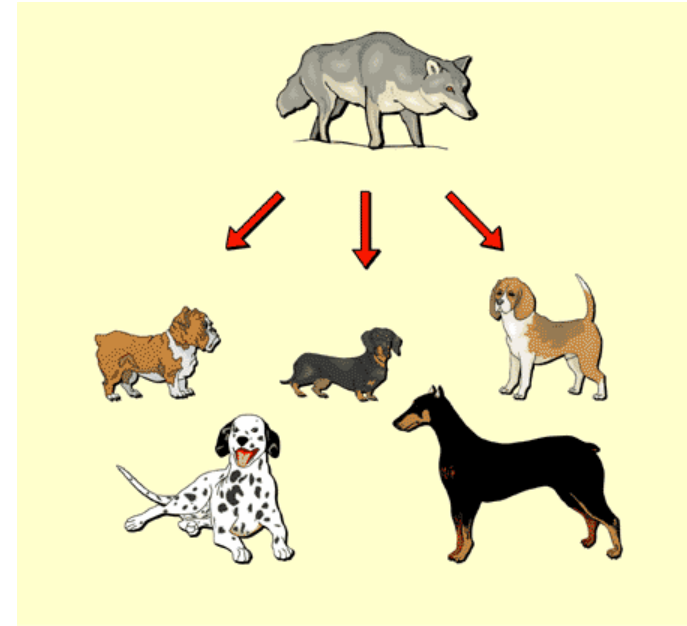
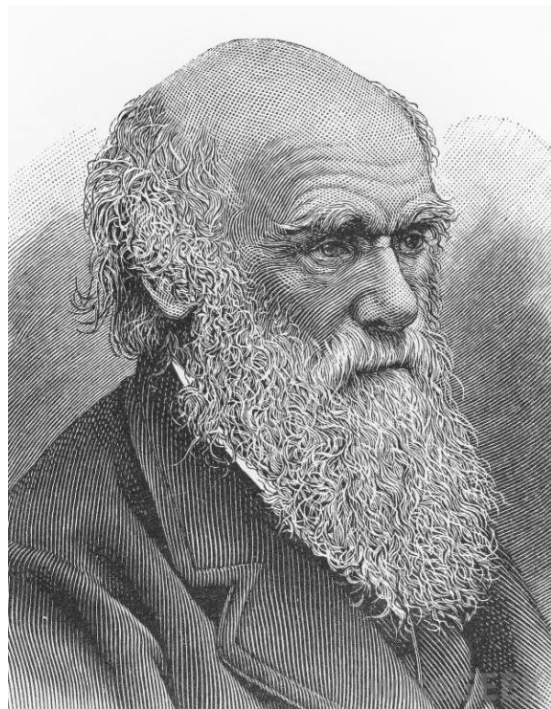
- Warm up
- 15.1 Notes: Natural Selection and Evidence for Evolution
- “Evidence for Evolution” stations

**\*\*Quick quiz for warm up next class\*\***

**Homework: 15.1 Section Assessment (pg. 403  
#1-5) DUE FRI/TUES**

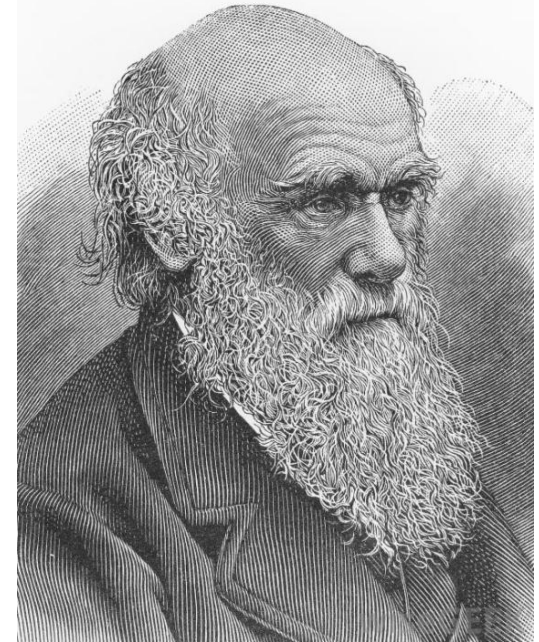
**Ch 14/15 Exam next Wed/Thurs**

# 15.1 Natural Selection & Evidence for Evolution

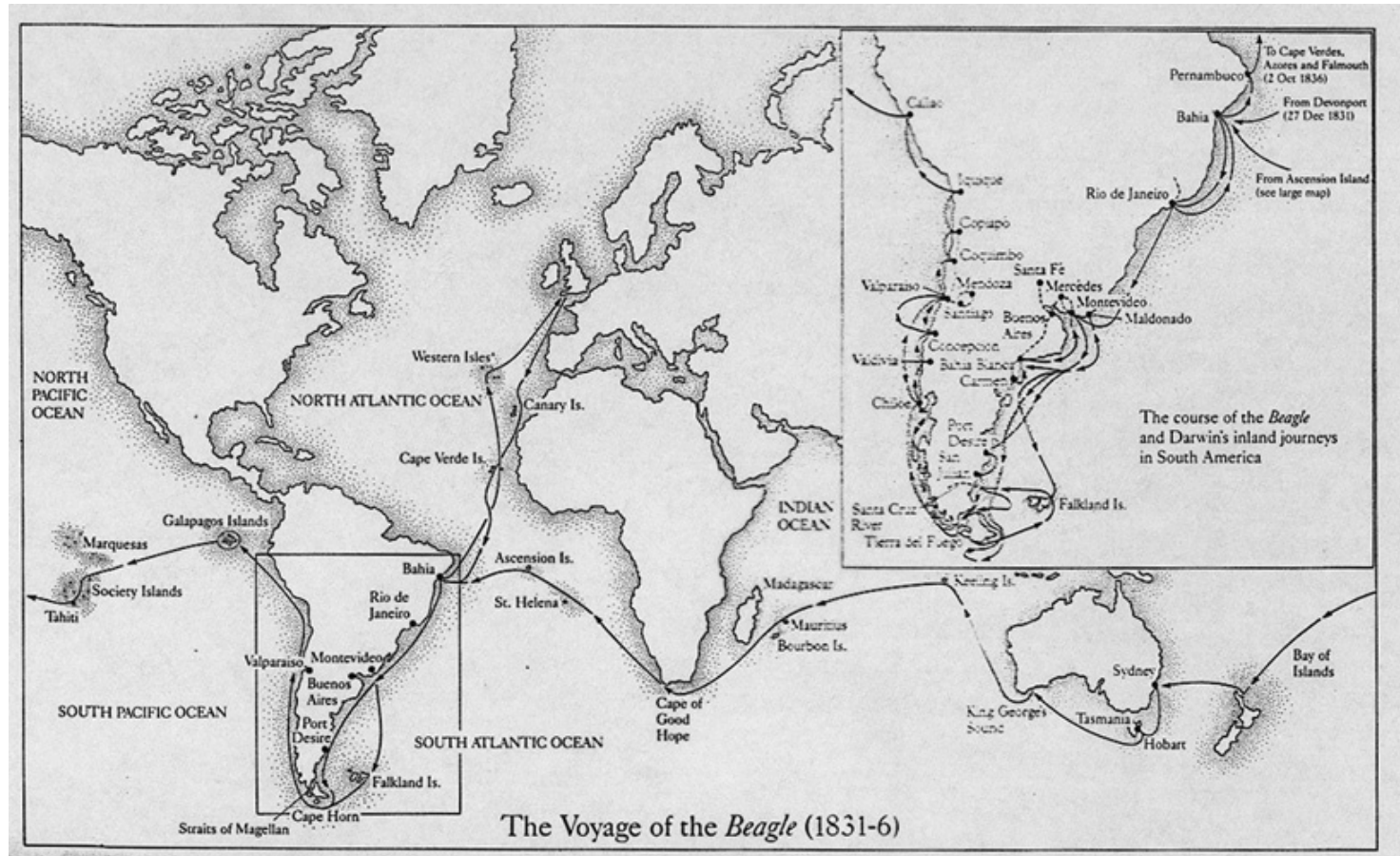


# Charles Darwin

- Charles Darwin - English scientist (1809-1882) is founder of modern evolutionary theory.
- Took a 5 year voyage to South America and South Pacific aboard HMS Beagle
- Careful study of plants and animals helped him develop his evolutionary theory

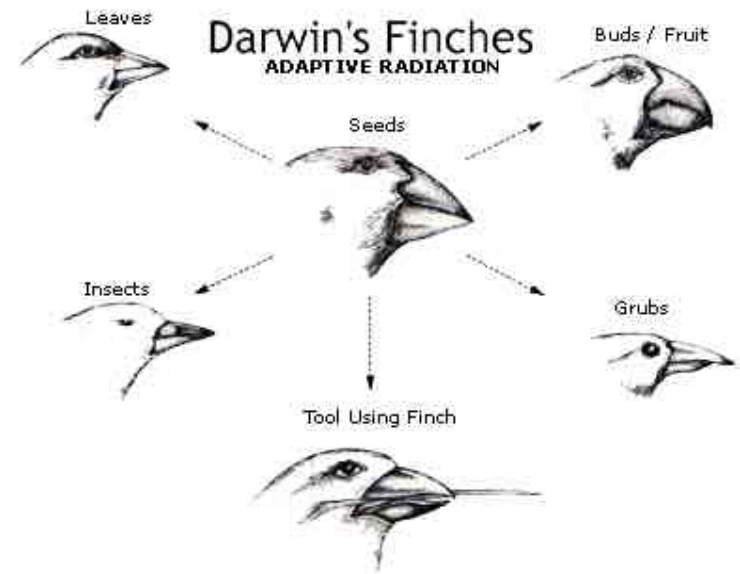
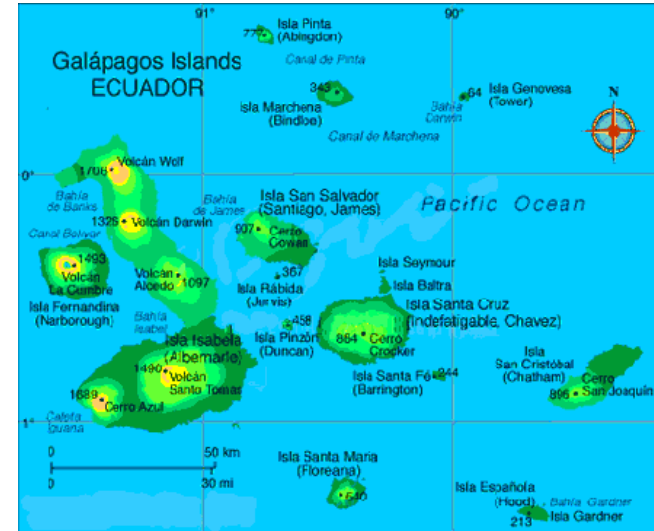


# Darwin Studied Natural World on Voyage of the *Beagle*



# Darwin's observations in Galapagos

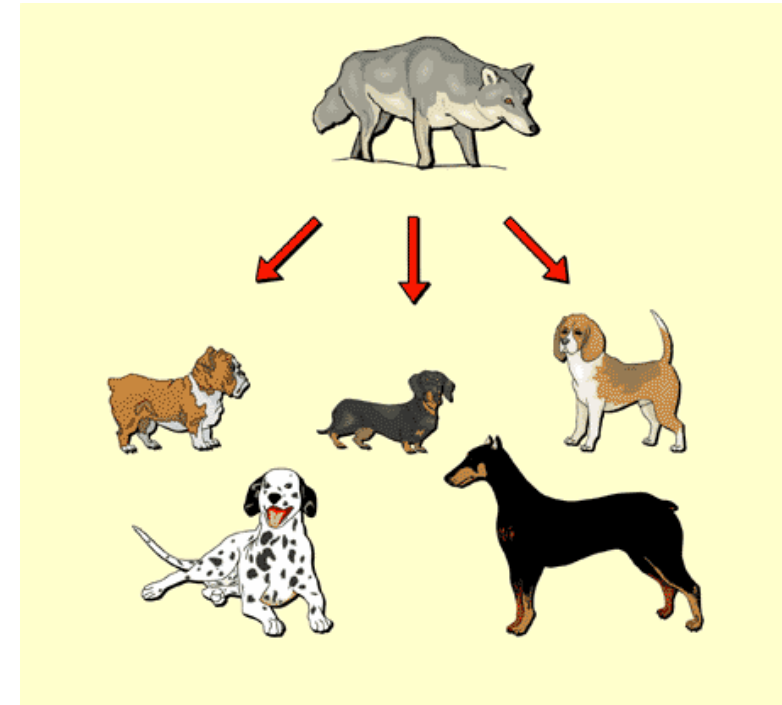
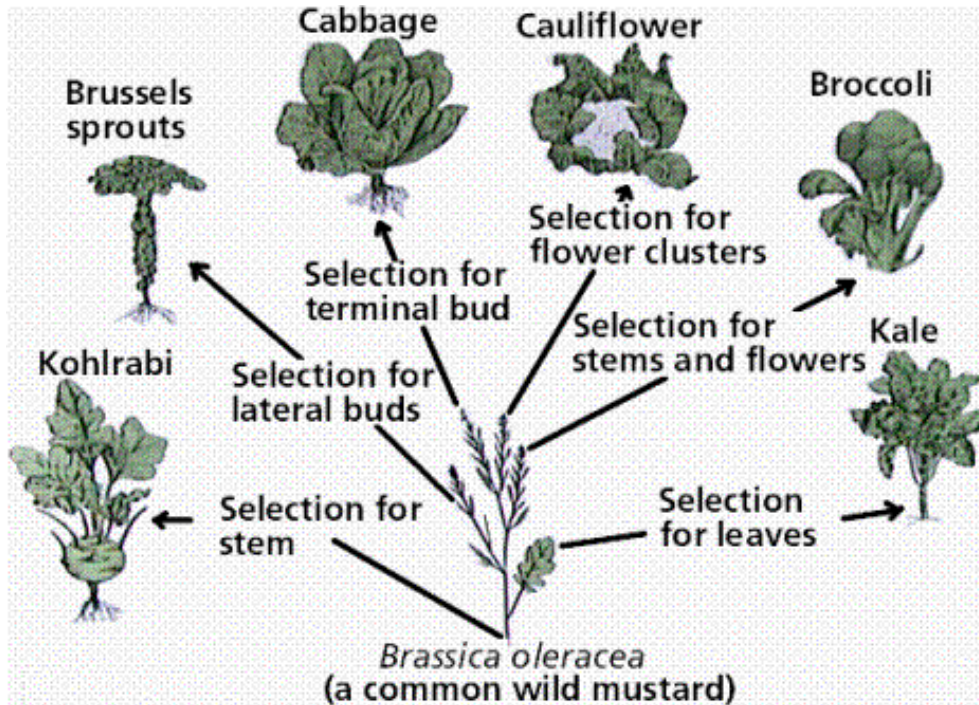
- Observations made in Galapagos Islands were most important for his hypothesis
- Found many species of plants and animals unique to island but similar to species seen in other parts of the world



<https://www.youtube.com/watch?v=WAKppAtJeh8>

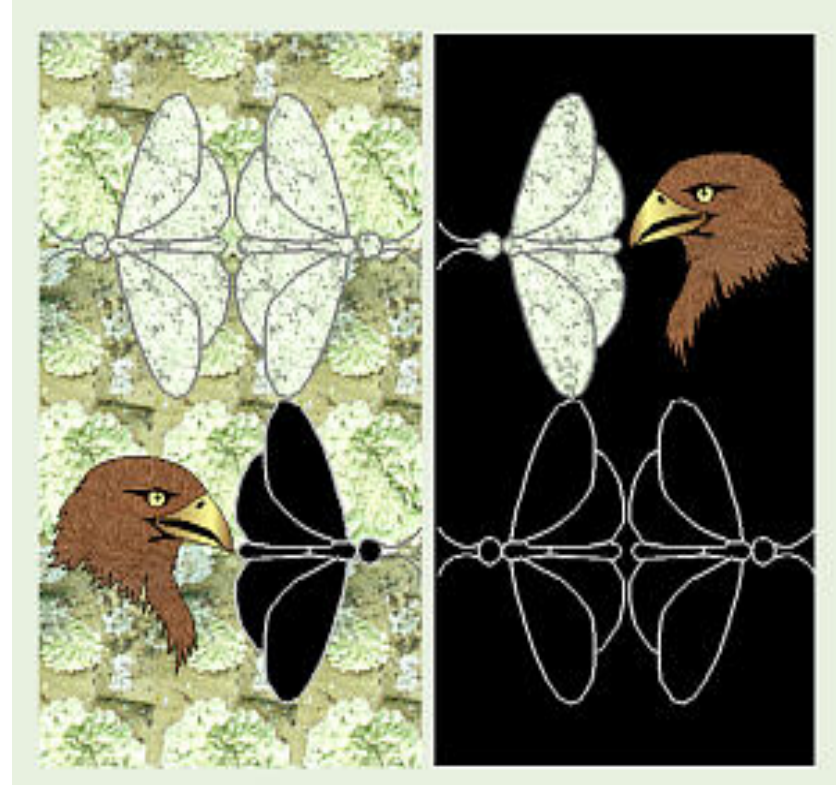


# Artificial Selection



# Darwin's Explanation for Evolution - Natural Selection

- **Natural Selection** - change in populations that occurs when organisms with favorable variations for an environment survive, reproduce, and pass these variations on (adaptations)
- Each new generation has offspring from parents with favorable variations (adaptations)

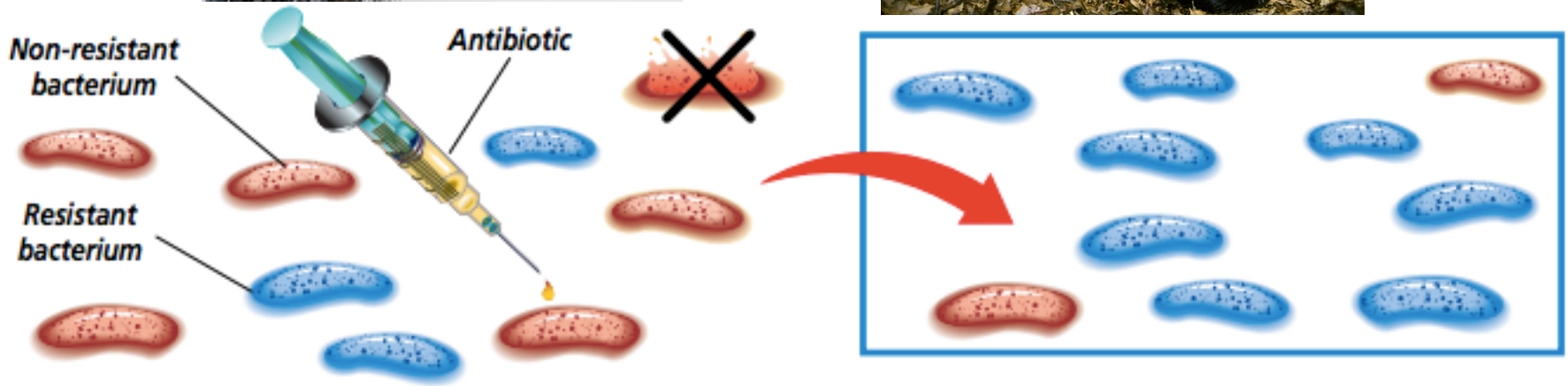




# Natural Selection and Adaptations

- Adaptation is any trait that aids the chances of survival and reproduction of an organism
  - Structural, physiological, structural
- Darwin's theory of evolution can be applied to explain the evolution of adaptations in organisms

# Physiological and Behavioral Adaptations



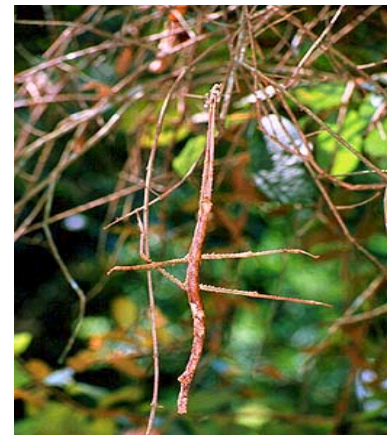
**A** The bacteria in a population vary in their ability to resist antibiotics.

**B** When the population is exposed to an antibiotic, only the resistant bacteria survive.

**C** The resistant bacteria live and produce more resistant bacteria.

# Structural Adaptations

- **Camouflage**- allows animal to blend in with its surroundings
- **Mimicry**- copies the appearance of another species for protection



\*Show pictures

# Evidence For Evolution

- Fossils
- Comparative anatomy
- Vestigial structure: Body structure in a present-day organism that no longer serves its original purpose
- Embryological development
- Biochemical evidence

