

Early Ideas About Evolution

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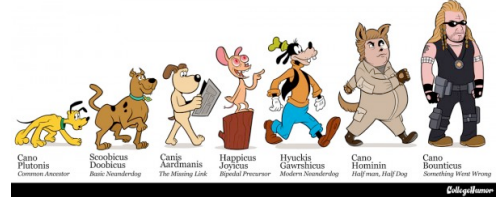


"You look different—have you been evolving or something?"

Evolution

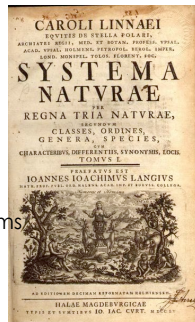
- change over time
- descendants differ from their ancestors
- **theory** - well supported and testable observation about natural phenomena

The Evolution of Famous Dogs



Paving the Way for Darwin

- Carolus Linnaeus
classification system
species - group of organisms that produce fertile offspring
- George Louis Leclerc du Buffon
proposed that species shared ancestors
- Erasmus Darwin (grandfather)
less complex → complex organisms
- Jean-Baptiste Lamarck
acquired traits pass to offspring
ex. babies with 6-packs



Theories of Geologic Change (Before Darwin)

- Earth = 6,000 years old
- species had not changed since creation
- George Cuvier
catastrophism - natural disasters (flood, volcanic eruptions, earthquakes, etc.) shaped landforms and caused species to become extinct in the process
new species moved into the area and account for changes in the fossil record
- James Hutton
gradualism - landforms arose from slow changes over time (erosion)

Principles of Geology

- book written by Charles Lyell
- **uniformitarianism** - geologic processes that shaped the Earth are uniform over time
- processes that shaped the Earth are still happening and can be observed
ex. mountains keep growing
ex. plate tectonics
- greatly influence Charles Darwin

