

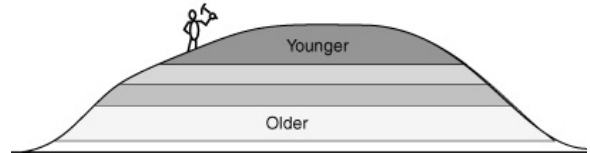
Class _____	Name _____ Date _____
Unit 5	Topic: Development of The Theory of Evolution
Main Ideas & Questions	<p>Notetaking Column (Details, drawings, answers)</p> <ul style="list-style-type: none"> ➤ Fact = an _____ about the world <ul style="list-style-type: none"> ○ Made using _____ or your _____ ➤ Hypothesis = a _____ prediction ➤ Theory = an _____ that is supported by a large number of _____ and _____ <ul style="list-style-type: none"> ○ Ex. Theory of Evolution by Natural Selection ➤ Law = describes _____ something works but doesn't explain _____ <ul style="list-style-type: none"> ○ Ex. Law of Gravity
Early Ideas & Change	<ul style="list-style-type: none"> ➤ Species = a group of _____ individuals that can mate and produce _____ offspring ➤ Ideas about the _____ and _____ have changed over time <ul style="list-style-type: none"> ○ At the start of the 1700s most people believed species _____ & never went _____ <ul style="list-style-type: none"> ■ Also believed Earth was only _____ years old ➤ As people in the 1700s began to _____ & explore new places ideas began to _____ <ul style="list-style-type: none"> ○ Discovered that species from _____ places can look and act _____ ○ Found _____ of species no longer alive <ul style="list-style-type: none"> ■ Fossil = a _____ of an _____ that lived in the past ➤ Scientists began to think it was possible for species to _____ over time <ul style="list-style-type: none"> ○ Evolution = _____ in a population of organisms over _____ <ul style="list-style-type: none"> ■ New _____ are different from previous (old) populations ○ Realized species can also go _____ <ul style="list-style-type: none"> ■ Extinct = _____ of a species are _____



Influential Scientists

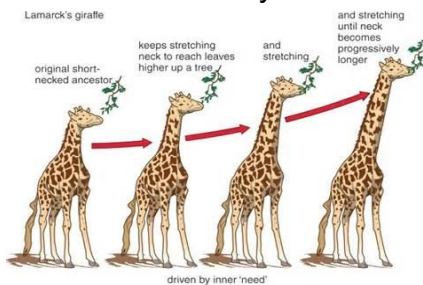
- Nicolas Steno (1669) - said _____ strata (rock layers) were older than _____ found closer to the _____ (Law of superposition)

- This applies to _____ as well!
- Also said the processes that are acting on _____ today are the same as those that acted in the past



- Jean-Baptiste Lamarck (1815) - said species _____ because of inheritance of _____ characteristics
 - Inheritance of acquired characteristics = _____ change during their _____ & pass those changes on to their _____

- Not believed anymore!



- Charles Lyell (1833) - said that Earth's _____ was changed by _____ processes over a _____ period of time

- This idea is called _____
 - Example: Rivers can create _____ and _____

- Lyell concluded that Earth was much _____ than 6,000 years

- Thomas Malthus (1798) - said humans _____ because of overpopulation

- Poverty, _____, famine, etc. occur because there are too many _____ & not enough _____

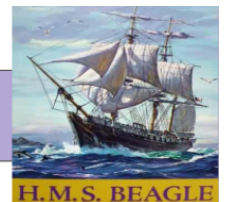
- Only those best suited for their environment & therefore able to get the _____ they need will _____ & reproduce

Charles Darwin

- Charles Darwin - proposed the Theory of _____ by _____
 - A result of his trip around the _____ on the H.M.S. _____ (a ship) from 1831-1836 (5 years!)
 - Studied many different _____
 - Spent a large amount of time in the _____
- Darwin was greatly influenced by other _____ of the time
 - _____ work made him think that species must _____ very _____ over time in order to _____ on a slowly changing Earth
 - Agreed that Earth must be _____
 - Believed all species shared a _____
- Darwin published his ideas _____ after his voyage
 - Book was “On the Origin of Species by Means of _____” (1859)
 - Finally published because another _____, Alfred Russell Wallace, was going to publish the _____!
 - Said species evolve because of _____
 - Not because of _____ of acquired characteristics like _____ thought



Darwin's Voyage 1831-1836



Summary: