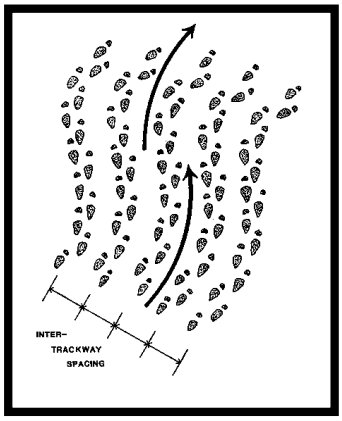
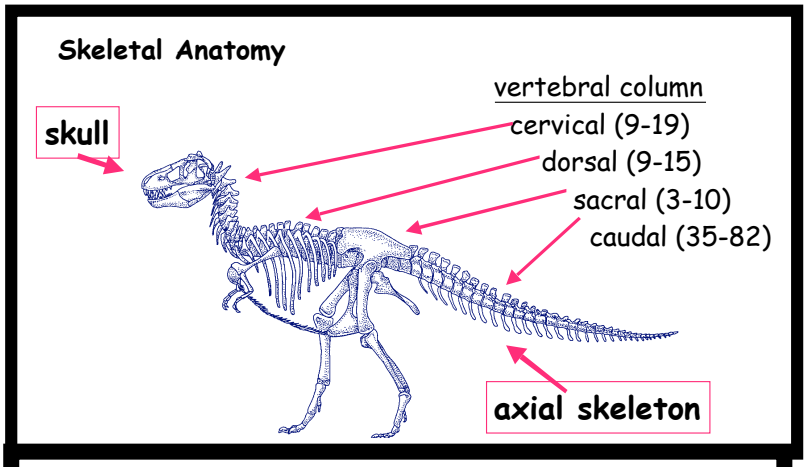


Exam 1 Review Topics (*i.e. highlights*)

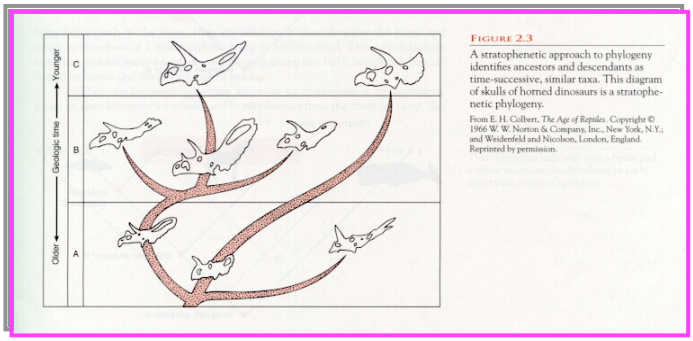
PART 2

taxonomy
evolution
1) life has a history
2) Chain of being
3) Theory of evolution – How new species are produced from previously existing species



Cervical
Dorsal
Sacral
Caudal

Law (Principle) of Superposition (Oldest is on the bottom of the pile of rock)
Charles Robert Darwin – Fitz-Roy – HMS Beagle – Scientific activities on the Beagle – Galapagos Islands – After the Beagle



Natural selection
Alfred Russell Wallace
Neo-Darwinism married with the understanding of genetics

a) Variation caused by genetic differences arise from Mutations
b) Most species stable over long periods of time. Evolution takes place in small isolated populations
c) Evolutionary change to a new species is complete when parent and daughter become reproductively isolated.

Thousands of generations for evolutionary change.
Examples of natural selection (antibiotic-resistant diseases)
Pesticides and insecticides
Taxonomy
Carolus Linnaeus (binomal)
Kingdom – phylum – class – order – family – genus – species
Principle of Priority
Biological vs paleontological species
Cladogram
Clade
Grade
Node – defined by evolved characteristic of set of characteristics called shared derived characters.
Monophyletic Group share two or more clades with a single ancestor
Polyphyletic – groups lacking a common ancestor on the cladogram
Convergence
Divergence
Microevolution
Macroevolution
Adaptive radiation
Extinction
Mass extinction – 6 in the geological record