Classification
Sections 17.1 & 17.2

FISH MAMMAL INSECTS BIRDS

MARTIN

ANIMAL
CLASSIFICATIONS
at pppst.com

Linnaean System of Classification

· classification - grouping objects/organisms based on a set of criteria
· taxonomy - science of identifying, naming, and classifying objects
· binomial nomenclature - system that gives species a 2-part scientific name using Latin
  Genus - first word, Uppercase first letter only, *italicized* if typed, <u>underlined</u> if hand-written
  species - second word, all lower case, *italicized* if typed, <u>underlined</u> if hand-written
  ex. *Homo sapiens, Canis familiaris*

Advantages & Disadvantages

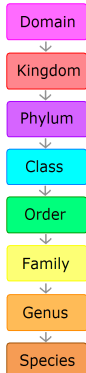| Advantages	Disadvantages
· unique name for each species eliminates confusion · recognized around the world (common language)	· based on physical traits · physically similar species may not be related · doesn't use molecular evidence

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1   Which of the following is written correctly?

A *Gorilla gorilla*

B *gorilla Gorilla*

C <u>Gorilla Gorilla</u>

D *gorilla* <u>gorilla</u>

Did King Philip Come Over For Good Spaghetti?

· Domain - broadest category
· Kingdom
· Phylum
· Class
· Order
· Family
· Genus - group of species that are closely related and share a common ancestor
· Species - a trait, scientist who first described it, or its native location

Domain → Kingdom → Phylum → Class → Order → Family → Genus → Species

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2   What is the most specific level of classification?

A Family

B Order

C Species

D Genus

Phylogeny
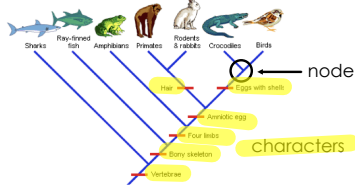
· evolutionary history for a group of species
· characters - inherited features that vary among species
  shared by some, but NOT others
  morphological - homologous structures suggest recent common ancestor
  biochemical - DNA and RNA analysis, molecular clocks (how long species have been evolving since diverging from a common ancestor)

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3 **The evolutionary history of a species is called**

A **taxonomy**

B **classification**

C **binomial nomenclature**
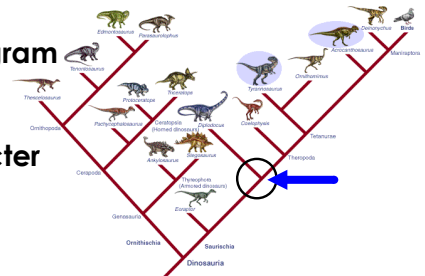
D **phylogeny**

Cladograms

· branching diagrams that represent the proposed phylogeny (evolutionary history) of a species or group similar to a pedigree
· characters, nodes, clades
  node - where branches originate; represents most recent common ancestor
  clade - any group of species that has descended from a common ancestor

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4 **What is this?**

A **cladogram**

B **node**

C **character**

D **clade**

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5 **A group of organisms that share a common ancestor is called a**

A **cladogram**

B **node**

C **character**

D **clade**