



## Biology 101

### Taxonomy & Systematics

A wordlist will be provided for each new topic. Use the wordlists to study. After completion of a topic and in preparation for an exam, you should be able to write a one or two sentence definition of each term and use each term in a sentence.

**Study questions** for this topic can be found at <http://skylinecollege.edu/case>

Amphibia	Fungi	Scientific name
Animalia	Genus	Species
Anthropomorphism	Kingdom	Systematics
Archaea	Linnaeus	Taxonomy
Aves	Mammalia	Teleologic
Bacteria	Mitochondria	Viruses
Biology	Order	Porifera (sponges)
Clade	Phylum	Cnidaria (jellyfish)
Class	Plantae	Platyhelminthes (flatworms)
Common name	Prokaryote	Annelida (segmented worms)
Domain	Protists	Mollusca (e.g., clams)
Eukarya	Reptilia	Arthropoda (e.g., insects)
Eukaryote	Ribosome	Echinodermata (seastars)
Family	rRNA	Chordata
Fish	Scientific method	

What factor defines a species? a) geographical isolation; b) reproductive isolation; c) hybridization; d) cladogenesis; e) behavior.

How many domains are represented in this list? Dog, human, redwood tree, Athlete's foot fungus

*Alexandrium*

*Euglena*

*Giardia*

*Macrocystis*

*Microcladia*

*Plasmodium*

*Trypanosoma*

*Ulva*

*Volvox*

1. What domains are represented by the drawings below?
2. What kingdoms?
3. Given a segment of the cytochrome c gene. Which two animals are more closely related? How can you tell?



Salamander



Lizard



Bird

Liz	A	T	A	C	G	A	T	C	A	T	G	C	T	C	G	T	C	C	A	T	C
Bird	A	T	C	C	A	C	T	C	A	T	C	C	T	C	G	T	C	G	A	T	T
Sal	A	C	G	C	C	G	T	C	C	A	T	C	C	T	T	T	C	A	A	T	G

4. Using the genetic information, fill in the Tree of Life for these animals:

