Animal Lab

- Look at the following slides!!!
- Put your lab books down!


R. Gaugler, DEEZ, Rutgers U


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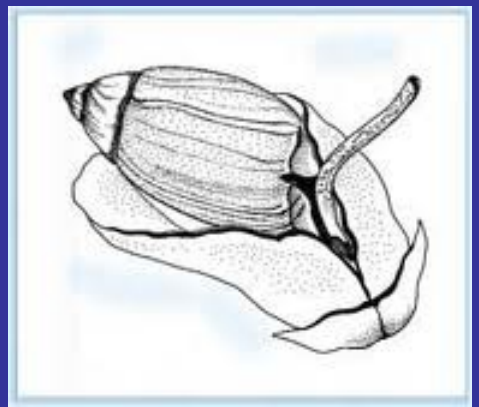
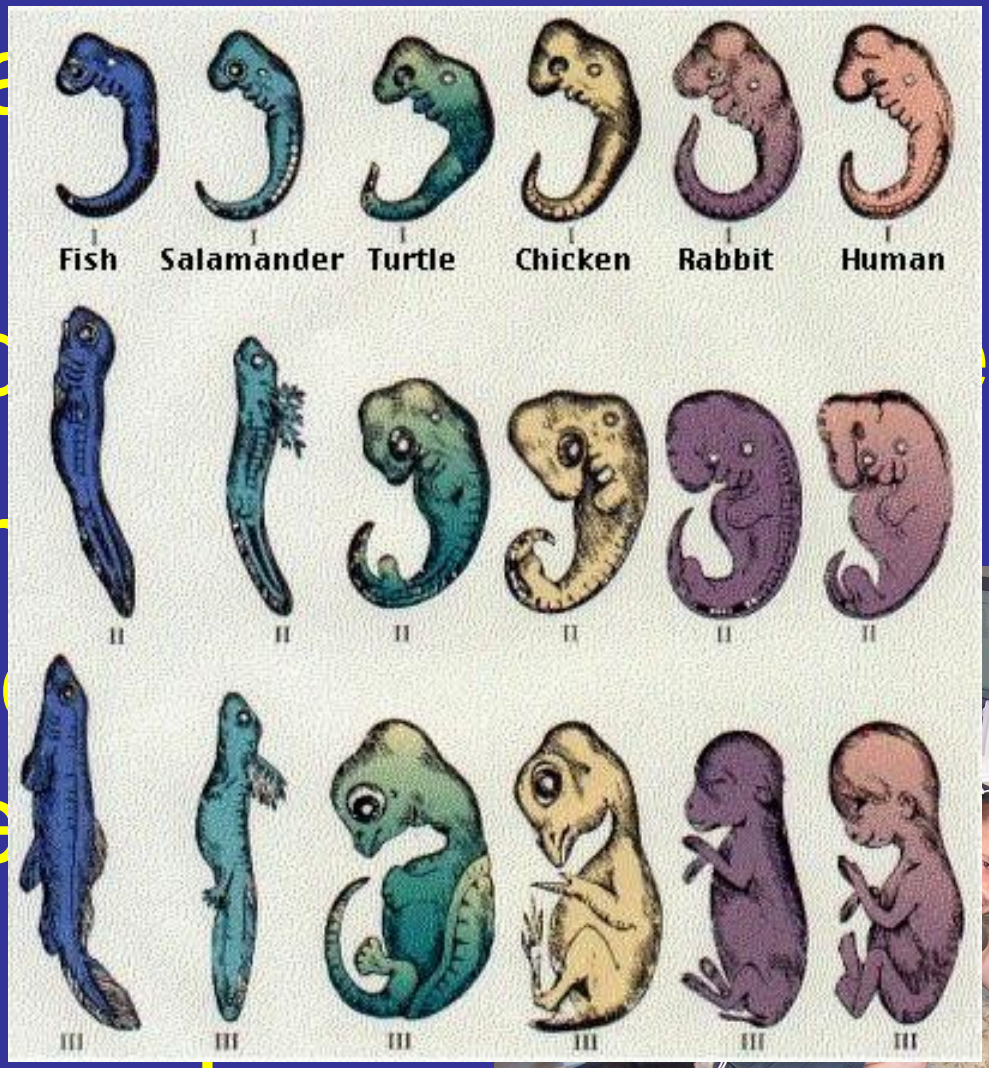


All of these are in Kingdom Animalia



You and

too!!!

Problem

can we

this dive

group?

should we do this, anyway?

Before DNA technology, organisms were classified based on their physical characteristics!

Taxonomy – the science of naming/classifying organisms!

1. Classify these organisms (10 minutes)
   a. Put them in groups, and have a reason for the group you put them in!!! Take notes!!! I'm going to come by and ask you!

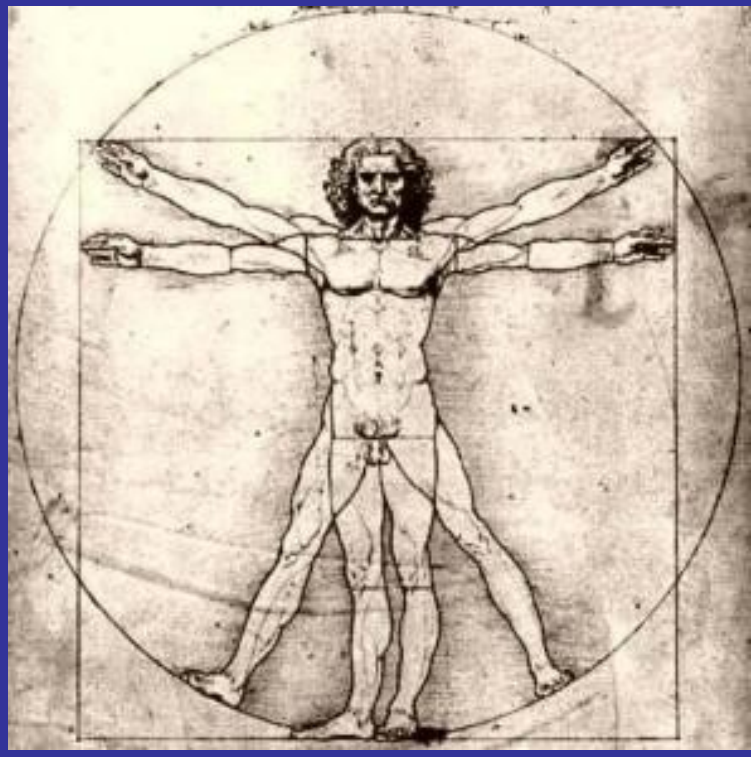
Discussion

of groups? Characteristics of each group?
Limitations/difficulties???

Classifying organisms in broadest terms to most specific:

Dumb King Paul called out for Gus and Sam

1.	**Domain**	**Eukarya**
2.	**Kingdom**	**Animalia**
3.	**Phylum**	**Chordata**
4.	**Class**	**Mammalia**
2.	**Order**	**Primates**
3.	**Family**	**Hominidae**
4.	**Genus**	**Homo**
5.	**Species**	**sapien**



Binomial nomenclature (genus & species)
Homo sapien – our scientific name

Levels of taxonomy

	Levels of Taxonomy	Human Classification	Defining characteristics
Most Broad	Domain	Eukaryote	Cells contain complex membrane-enclosed structures
	Kingdom	Animalia	Multicellular, mobile, heterotrophic (must eat other organisms for nutrients)
	Phylum	Chordata	Spinal nerve cord, back bone, post anal tail (tail bone)
	Class	Mammalia	Mammary glands (milk) and hair on body
	Order	Primates	Large brains, opposable thumbs
	Family	Hominidae	aka "Great Apes", large, tailless, omniverous
	Genus	Homo	Human-like, use of tools
Least Broad	Species	Sapiens	Reduced brow ridge, prominent chin, vertical forehead (allows for larger brain)

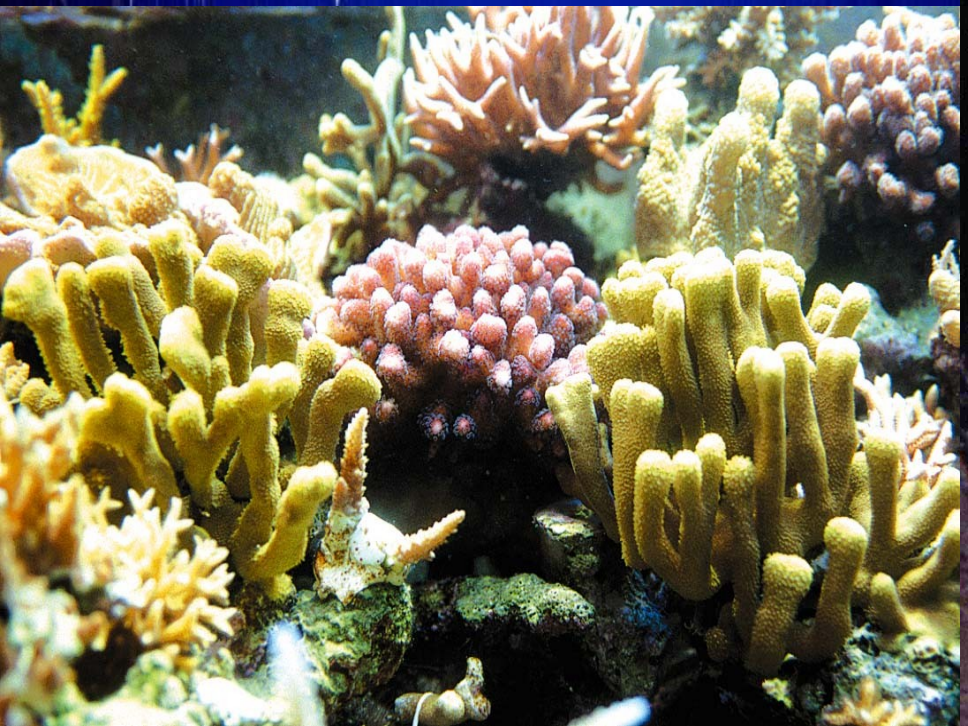
Phylums & Classes!!!

2. Classify your organisms again, using the phylums (described in your lab book)! Put Arthropods & Vertebrates in Classes (described in your lab book!) – 10 minutes!

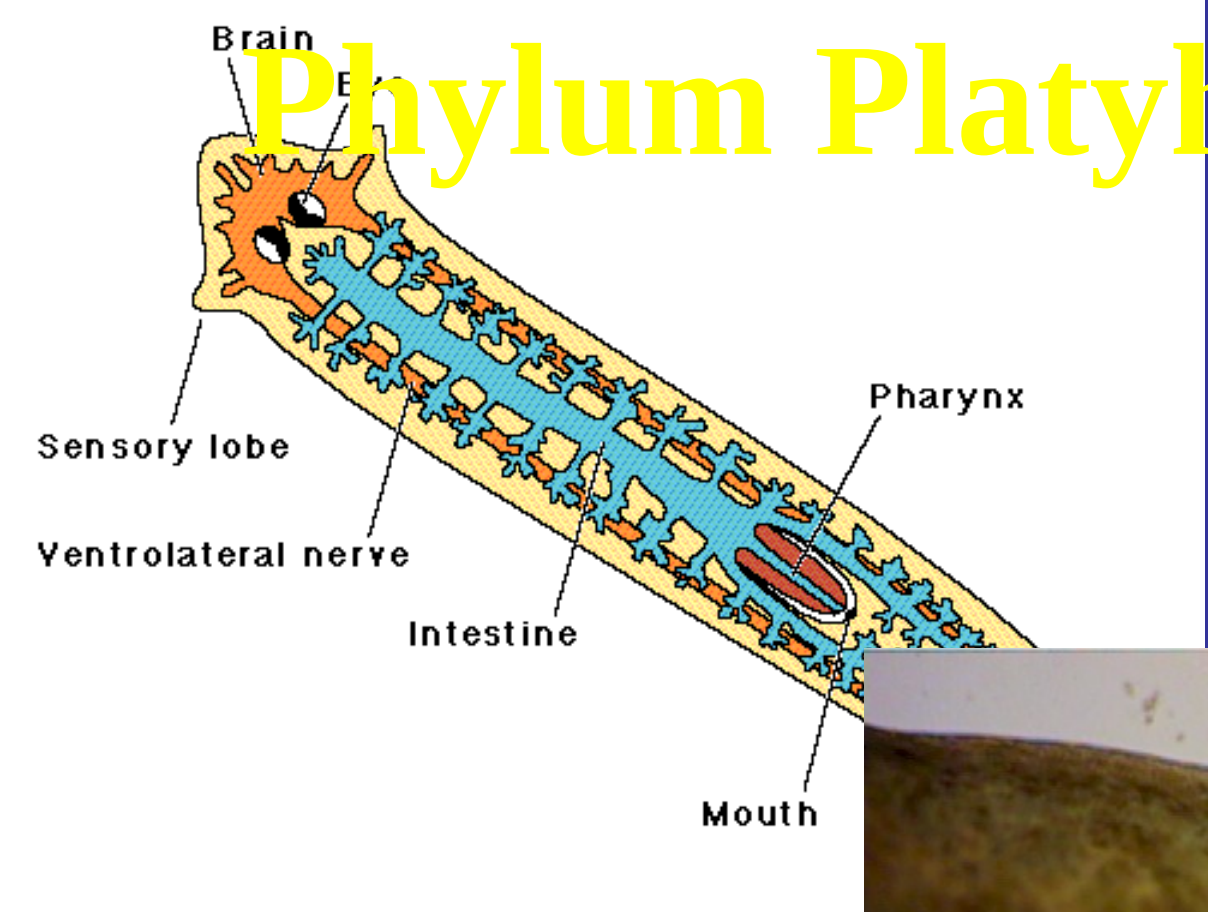
3. Discussion - be able to ID for lab test (phylums & classes)! Know the characteristics!

Phylum Porifera – The sponges

Phylum Cnidaria



Phylum Platyhelminthes



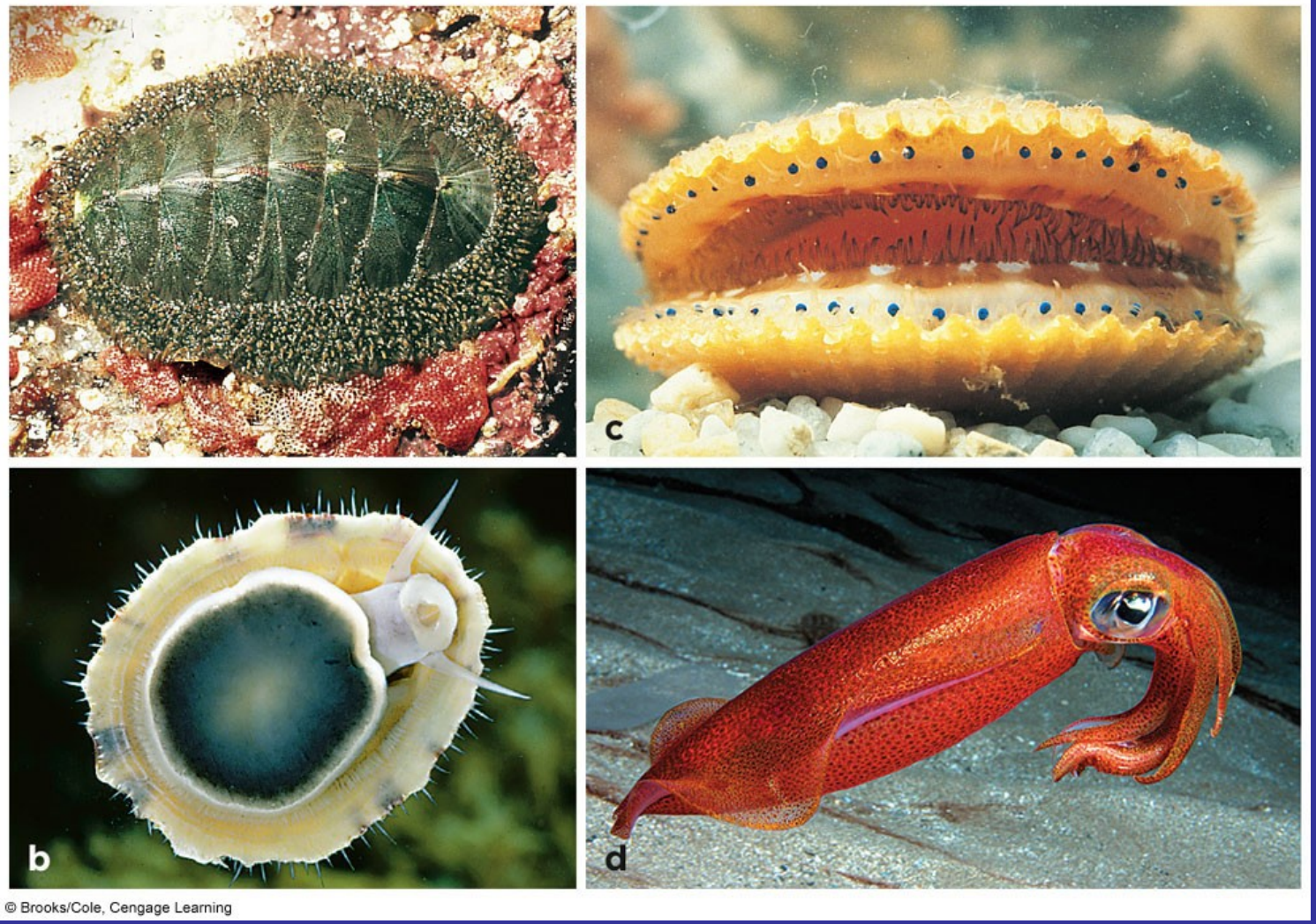
Phylum Nematoda

Round Worms

- Cylindrical Body Tapered at Both Ends
- Unsegmented
- Pseudocoelomate

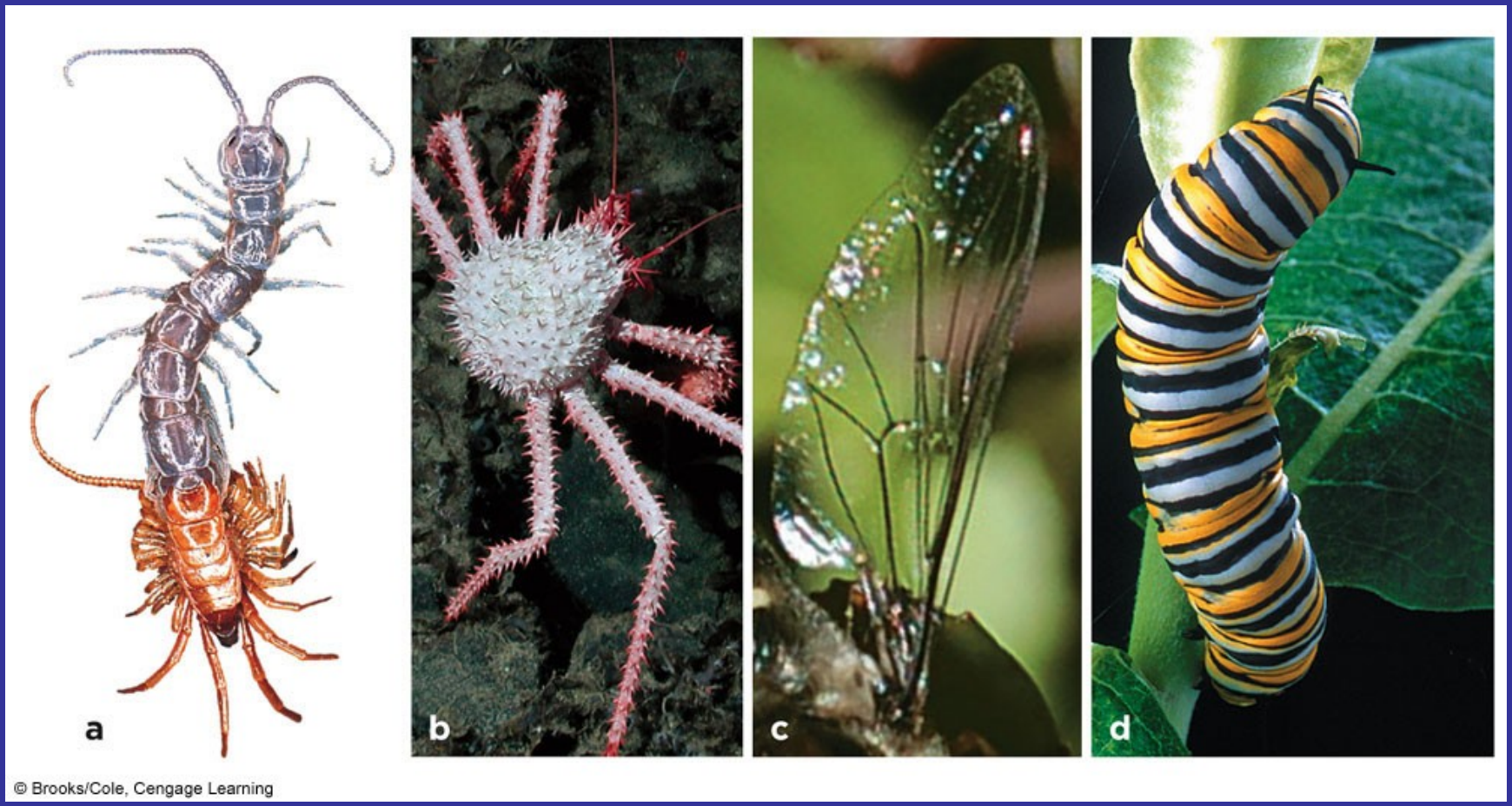
Hookworms
Ascaris
Enterobius
Trichinella

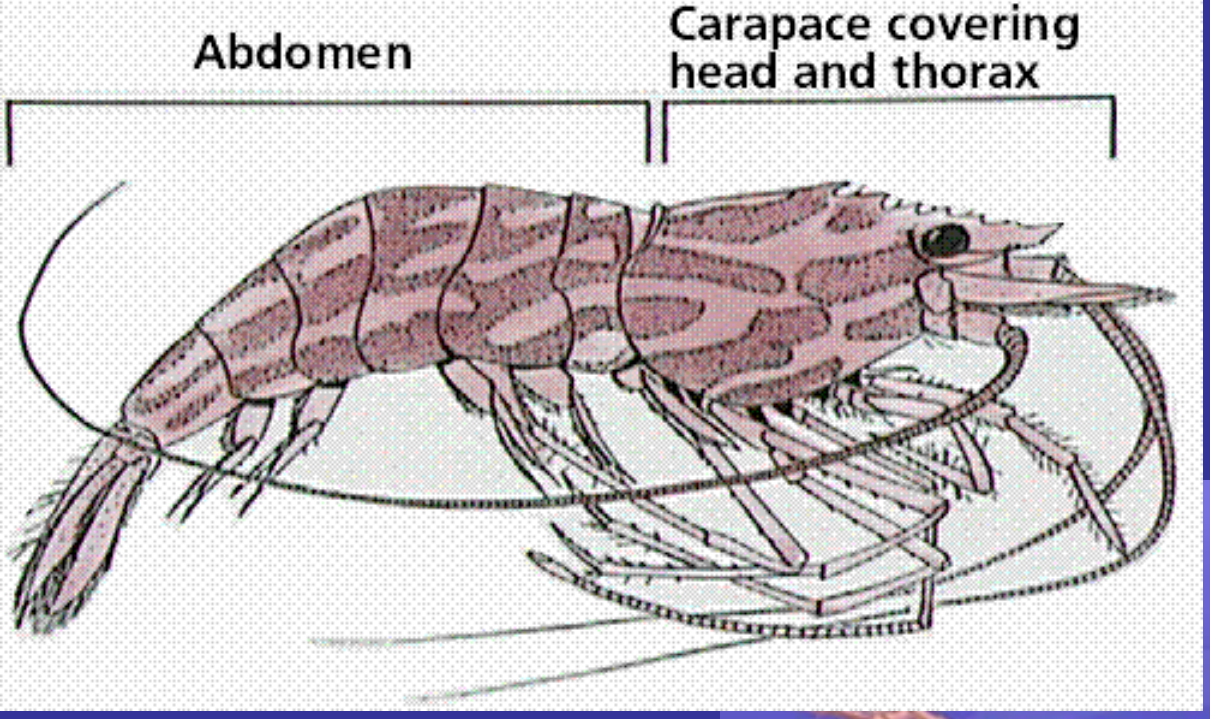
Phylum Annelida



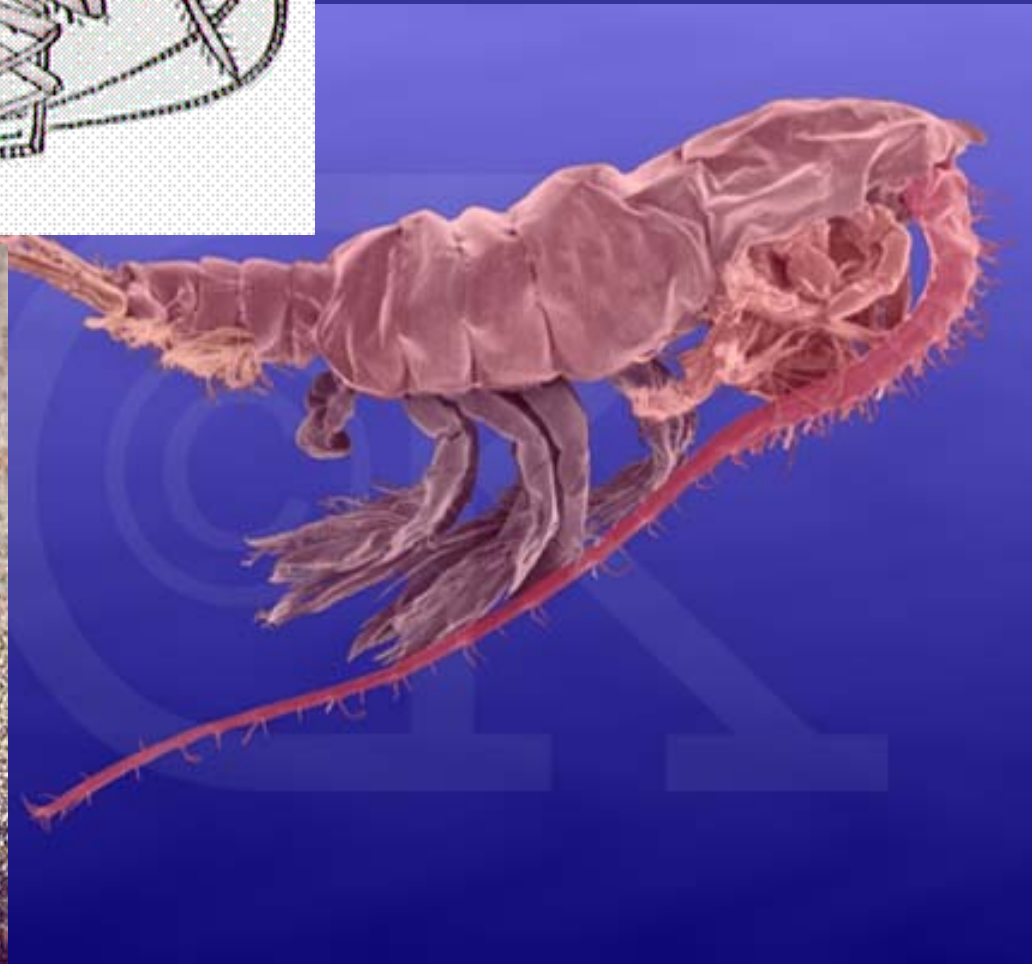
Phylum Mollusca

Phylum Arthropoda



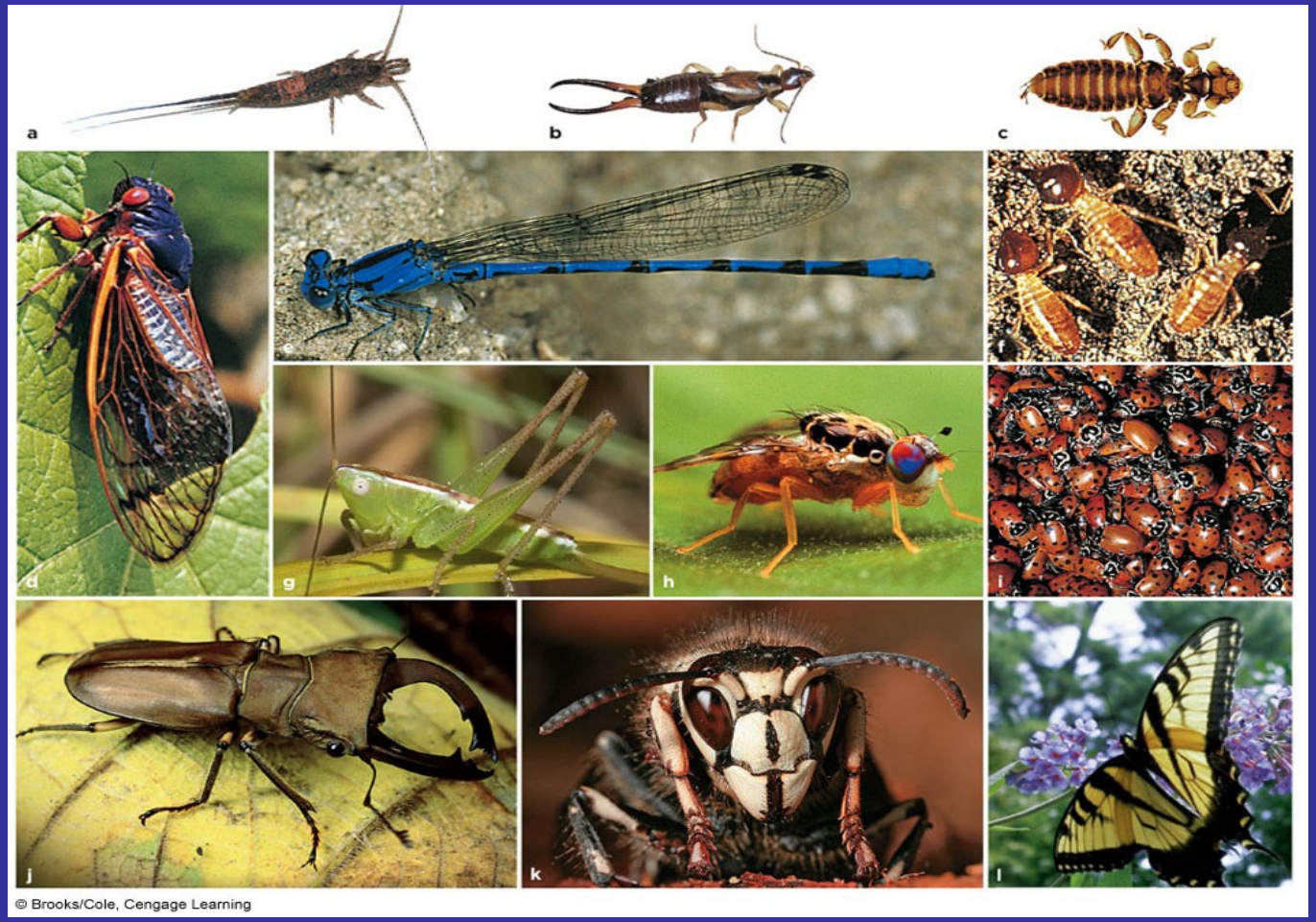


Class Crustacea

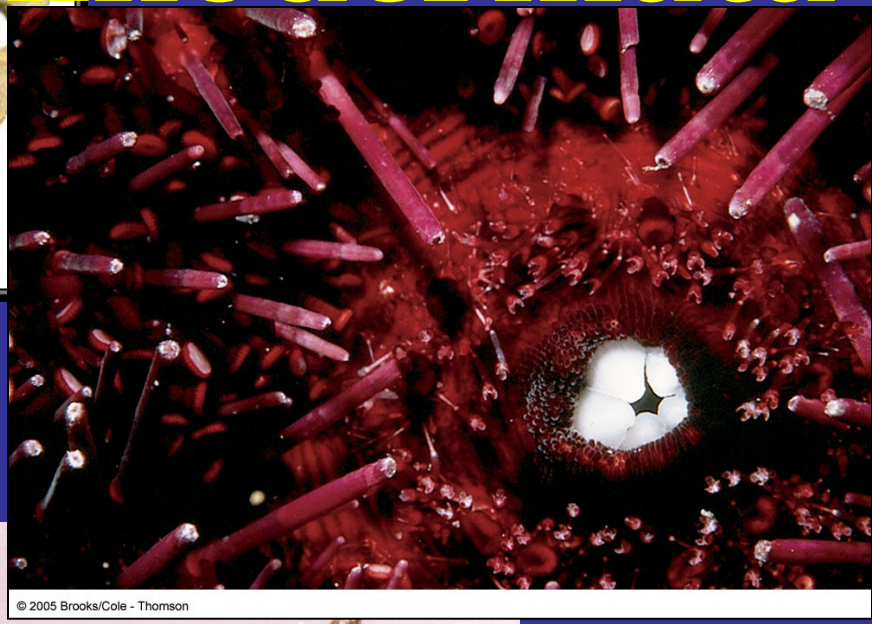


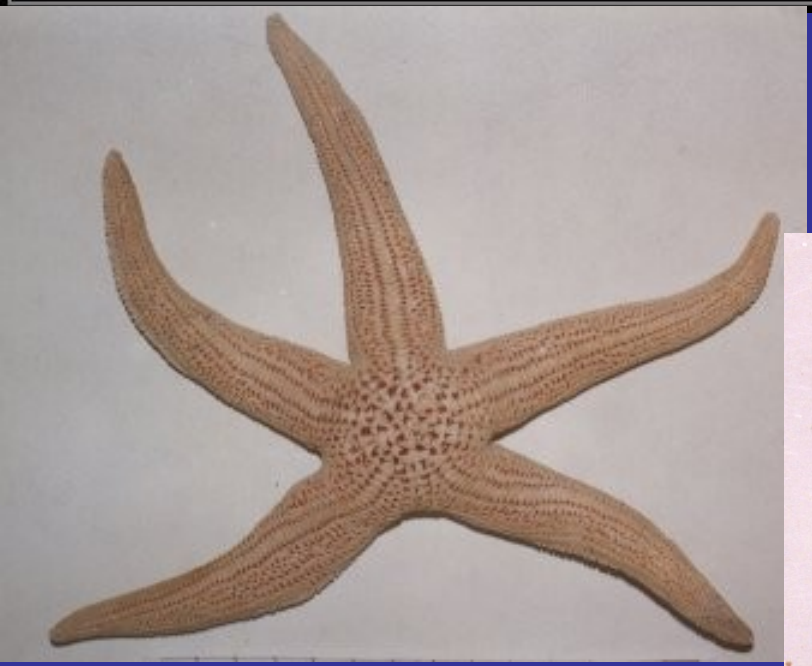
Class Arachnida

Class Insecta



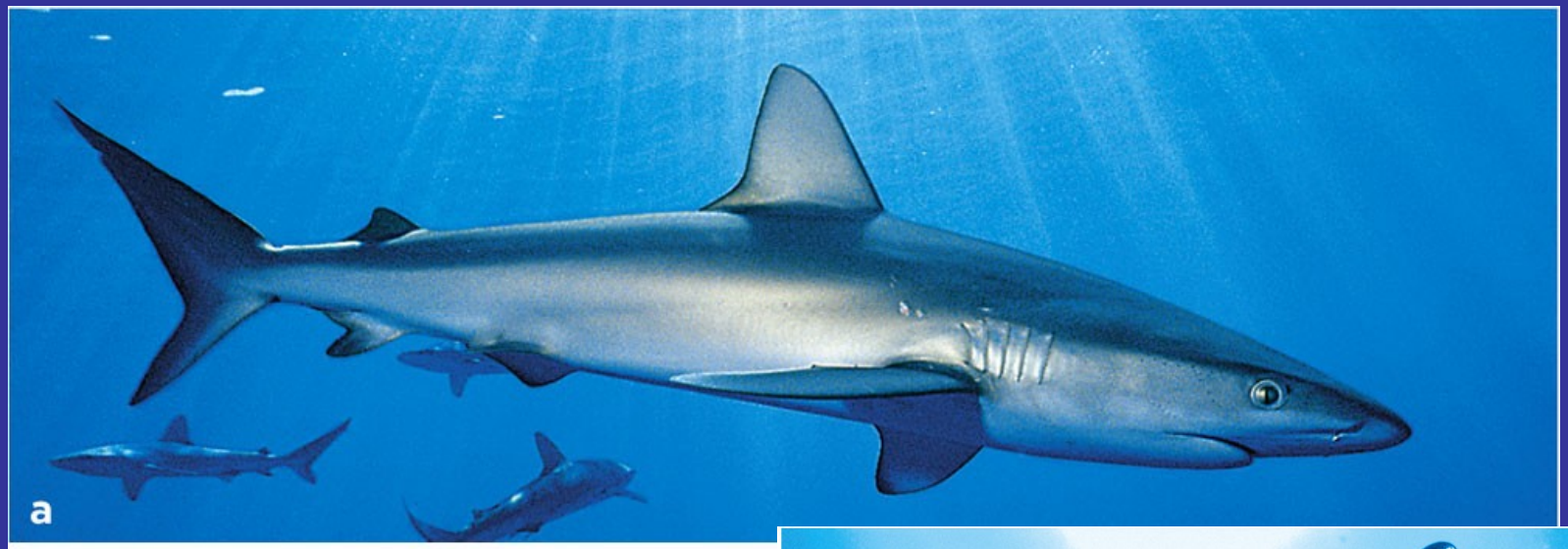
Phylum Echinodermata



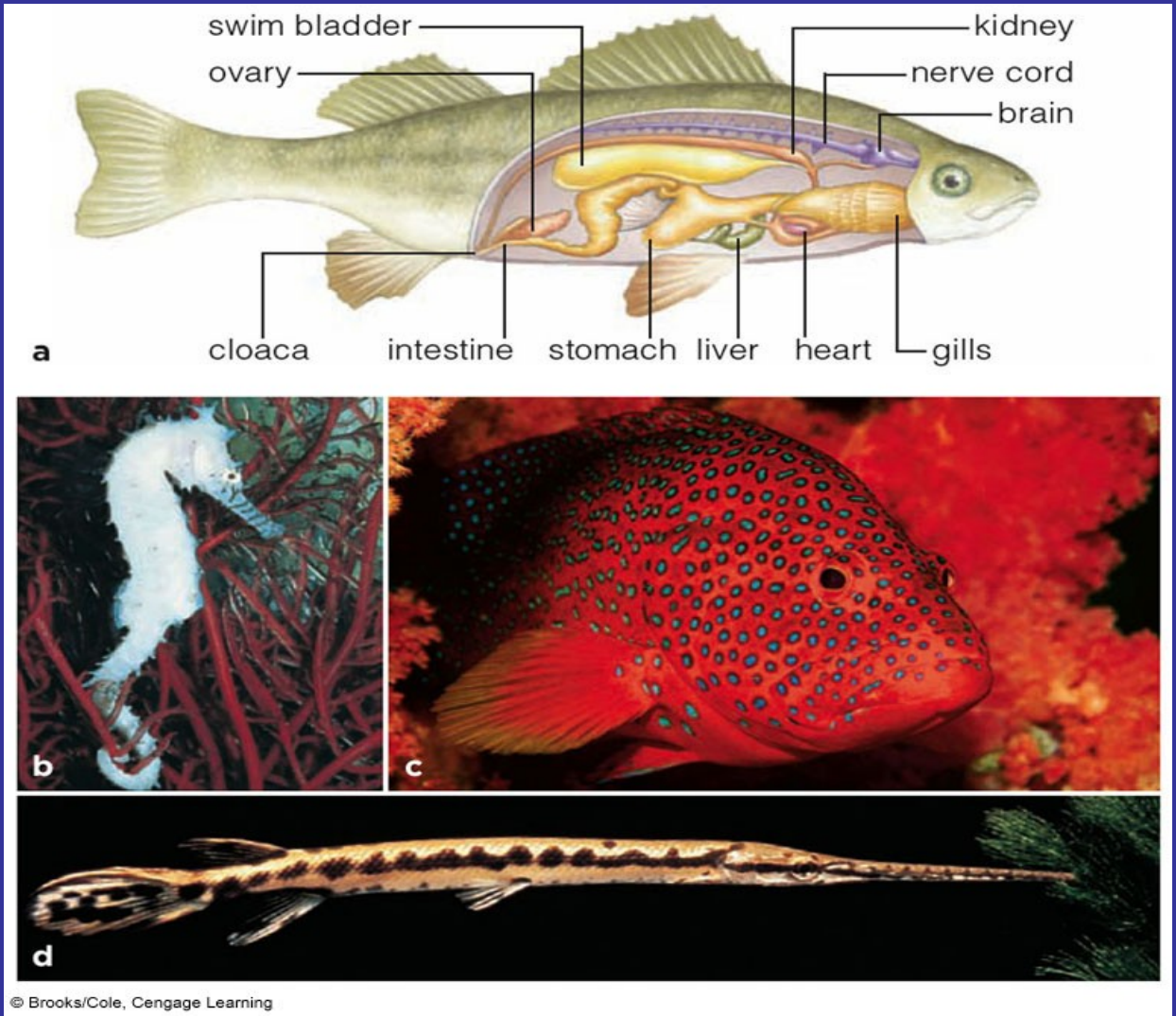



Phylum Chordata
Subphylum Vertebrata

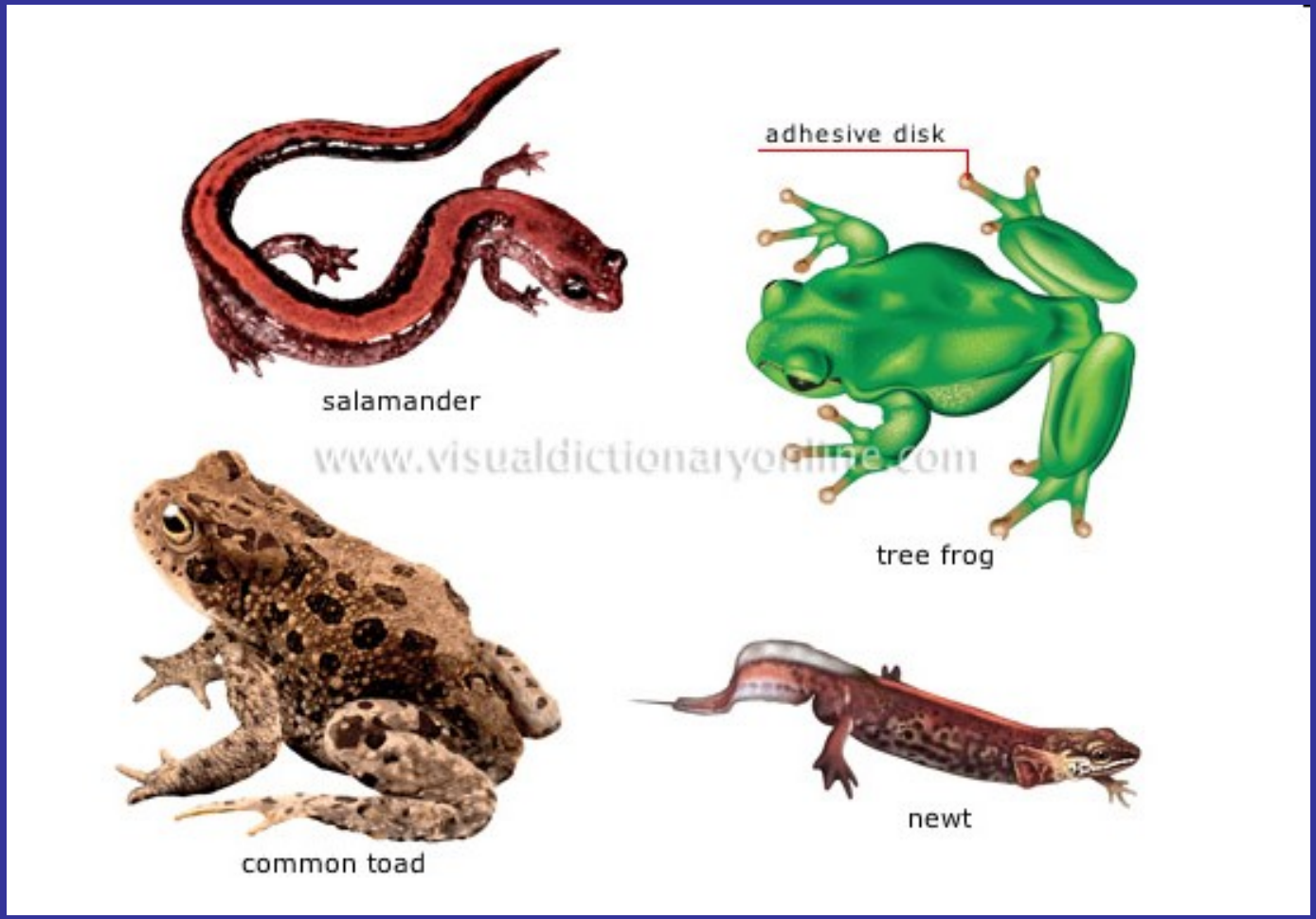
Class Chondrichthyes



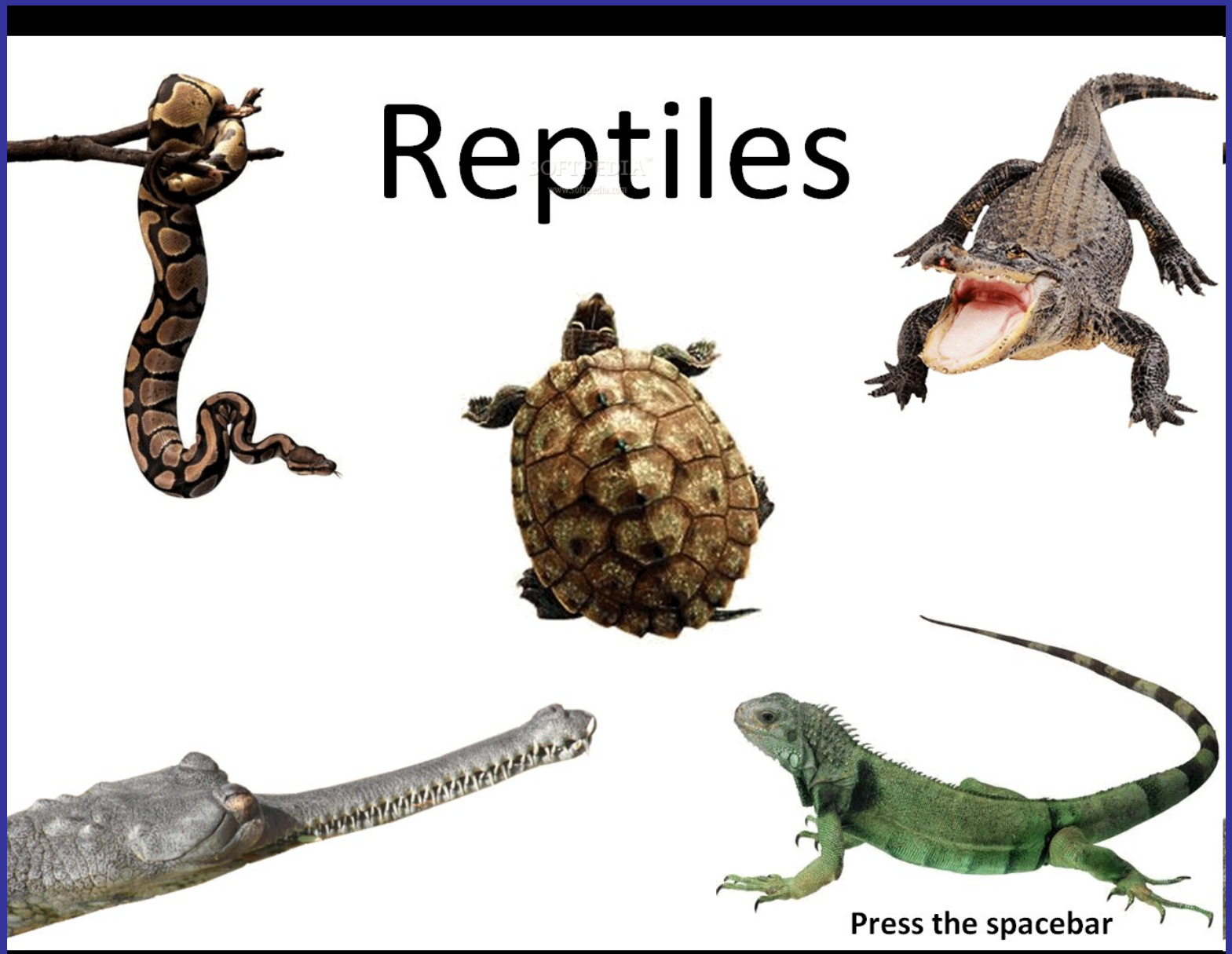
Class Osteichthyes



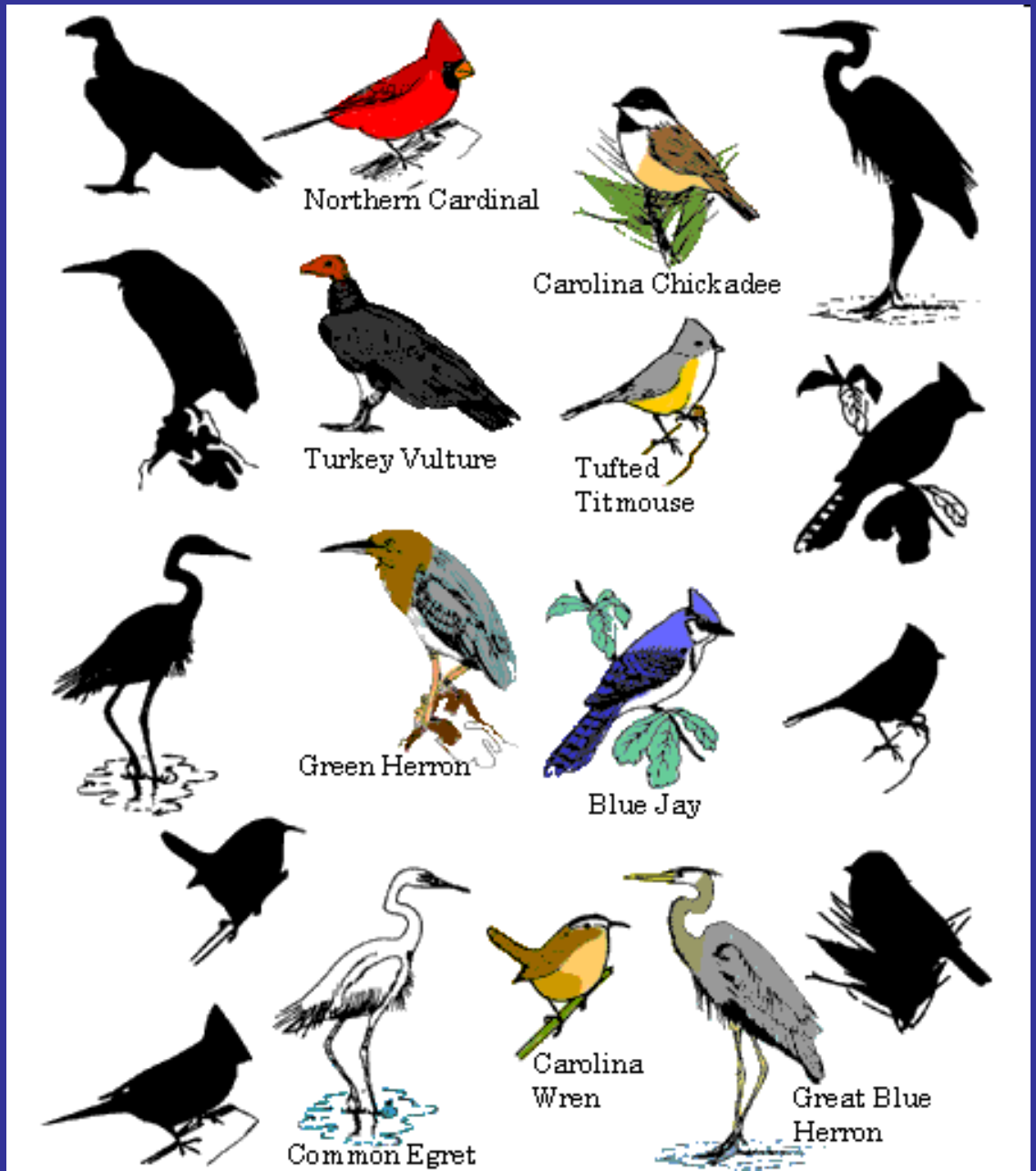
Class Amphibia



Class Reptilia



Class Aves


Northern Cardinal
Carolina Chickadee
Turkey Vulture
Tufted Titmouse
Green Herron
Blue Jay
Common Egret
Carolina Wren
Great Blue Herron

Class Mammalia