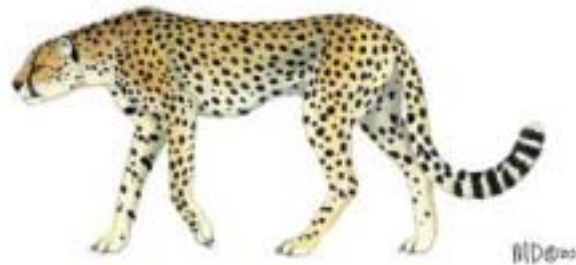


Identification of Animal Phyla



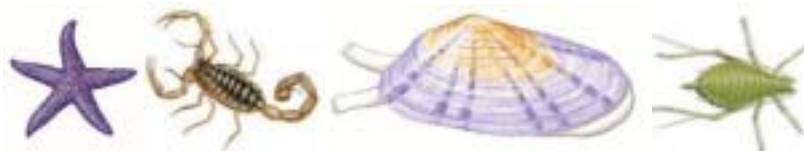
Purpose: Students will record characteristics and use a dichotomous key to identify phyla of the animal kingdom.

Procedure and results

- A. Define the listed vocabulary words.
- B. Observe specimens located on the cart and record the characteristics of each on the appropriate table (Chart 1 – Invertebrates; Chart 2 – Vertebrates).
- C. Use the keys to identify the phyla of each specimen.
 - a. Use Key #1A to identify the invertebrates and complete Chart 1
 - b. Further classify the Arthropods using Key #1B and fill in the provided table
 - c. Use Key #2 to identify the vertebrates and complete Chart 2

Vocabulary:

- Ex* Exoskeleton _____
- Ex* Radial symmetry _____
- Ex* Bilateral symmetry _____
- Ex* Segmentation _____
- Ex* Tentacles _____
- Ex* Antennae _____



KEY #1A			
1	a. Body asymmetrical		Phylum Porifera
	b. Body symmetrical		Go to 2
2	a. Body symmetry radial.		Go to 3
	b. Body symmetry not radial		Go to 4
3	a. Tentacles present.		Phylum Cnidaria
	b. Tentacles absent		Phylum Echinoderm
4	a. Exoskeleton present.		Go to 5
	b. Exoskeleton absent		Go to 6
5	a. Jointed legs present.		Phylum Arthropod
	b. Jointed legs absent		Phylum Mollusca
6	a. Body segmented.		Phylum Annelidia
	b. Body not segmented		Phylum Platyhelminthes

Key #1B		
1	a. Walking legs, > 5 pair.	_____ Go to 2
	b. Walking legs, < 5 pair	_____ Go to 3
2	a. Legs, 1 pair/ body segment.	_____ Class Chilopoda
	b. Legs, 2 pair/ body segment	_____ Class Diplopoda
3	a. Antennae present.	_____ Go to 4
	b. Antennae absent	_____ Class Arachnida
4	a. Antennae, 1 pair.	_____ Class Insecta
	b. Antennae, > 1 pair	_____ Class Crustacea

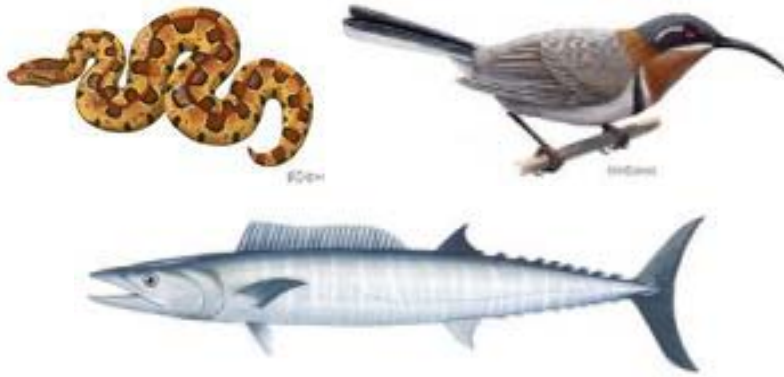
Specimen number	Class

Specimen number	Class

Analysis:

- Which invertebrate **phyla** contain animals with no symmetry? _____
- Which invertebrate **phyla** contain animals with radial symmetry? _____
- Which invertebrate **phyla** contain animals with exoskeletons? _____
- Which invertebrate **phyla** contain animals with segmented bodies? _____
- Is there any specific invertebrate characteristic that identifies the members of particular phyla? Explain your answer.

- True or False:** An animal must be a member of the phylum Echinodermata if the organism has radial symmetry and has an exoskeleton: T F
- True or False:** An animal must be a member of the phylum Annelida if the organism has bilateral symmetry and has a segmented body. T F



Key #2			
1	a. Hair present.		Class Mammalia
	b. Hair absent		Go to 2
2	a. Feathers present.		Class Aves
	b. Feathers absent		Go to 3
3	a. Jaws present.		Go to 4
	b. Jaws absent		Class Agnatha
4	a. Paired fins present.		Go to 5
	b. Paired fins absent		Go to 6
5	a. Skeleton bony.		Class Osteichthyes
	b. Skeleton cartilaginous		Class Chondrichthyes
6	a. Skin scales present		Class Reptilia
	b. Skin scales absent		Class Amphibia

8. Is there any single characteristic that identifies the members of a particular vertebrate class? Explain your answer.

9. Which vertebrate **classes** contain animals with jaws present? _____

10. Which vertebrate **classes** contain animals with hair present? _____

11. Which vertebrate **classes** contain animals with paired fins? _____

