Characteristics of the Animal Kingdom

(Adapted from BSCS Blue 2001/ Lab Investigation 18)

Objective: to observe the external characteristics of various phyla of the animal kingdom.

Directions: Carefully examine the Animal phyla survey bottles. The specimens are very fragile. Please handle very carefully; do not shake. Observe the animals, record the common names in the correct column, and record your observations in the tables below.

Invertebrates										
Characteristics										
Exoskeleton	present or absent									
Body Symmetry	radial or bilateral or part spiral part bilateral									
Jointed walking legs	3 pairs or 4 pairs or more than 4 pairs or absent									
Body Segmentation	present or absent									
Tentacles	More than 4 present or 4 or fewer or absent									
Antennae	2 or more present or 1 pair present or absent									
	Phylum and Name of organisms	Porifera	Cnidaria	Ctenophora	Platy-helminthes	Nematoda	Arthropoda	Annelida	Mollusca	Echino-dermata

Vertebrates		Name of organisms							
Skin Structures	hair present or feathers present or scales or none of the above								
Appendages	wings present or legs present or fins present or none of the above								
Skeleton	Bony or cartilaginous								
Teeth	present or absent								
Please note: Phylum Chordata is sometimes split into three phyla	Phylum/Class and name of organism (note you may have to look up information in your text book)	Phylum Uro-chordata	Phylum Cephalo-chordata	Phylum Craniata/ Class Chon-drichthyes	Phylum Craniata/ Class Osteichthyes	Phylum Craniata/ Class Amphibia	Phylum Craniata/ Class Reptilia	Phylum Craniata/ Class Aves (now a sub-class of Reptilia)	Phylum Craniata/ Class Mammalia

Post Laboratory Questions:

1. What features or characteristics were the most helpful in determining whether an animal was an invertebrate or vertebrate?

2. What are the advantageous and disadvantages of using preserved specimens versus observing animals in their natural environment?

3. Make a table listing the phyla and/or class of the organisms you observed and the most distinguishing characteristics of that phyla or class.