Classification Essential Questions/Test Review

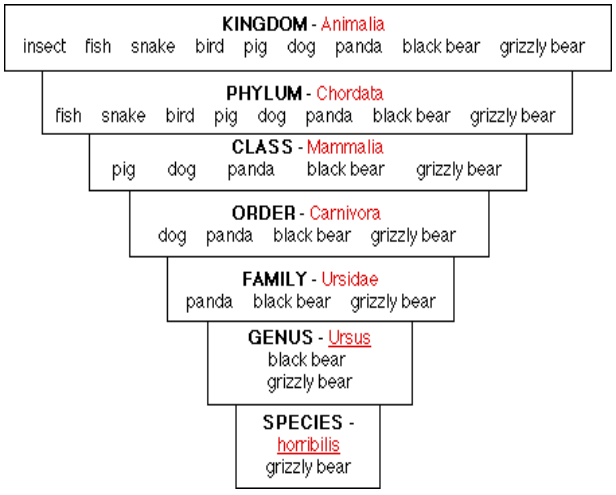
Name: _____ Class Hour____ Due: ___ Score: ____/40

Directions: The following essential question/test review gives you the opportunity to reflect on what you have learned or need to learn. It is made of only key points and questions. Each practice question will ask to recall something you **should know** or ask you to **demonstrate how to do something.**

Question 1: **Explain in 1 paragraph how to use the classification key below to find the name of the little animal above the key. What is the name of the animal?**

Classification Key	
1.	a. Tail is shorter than ear..... go to 2 b. Tail is longer than ear..... go to 3
2.	a. Back is striped..... *Dicrostonyx groenlandicus* b. Back is entirely brownish..... *Synaptomys cooperi*
3.	a. Back is striped..... *Citellus lateralis* b. Back is entirely grayish..... *Citellus columbianus*

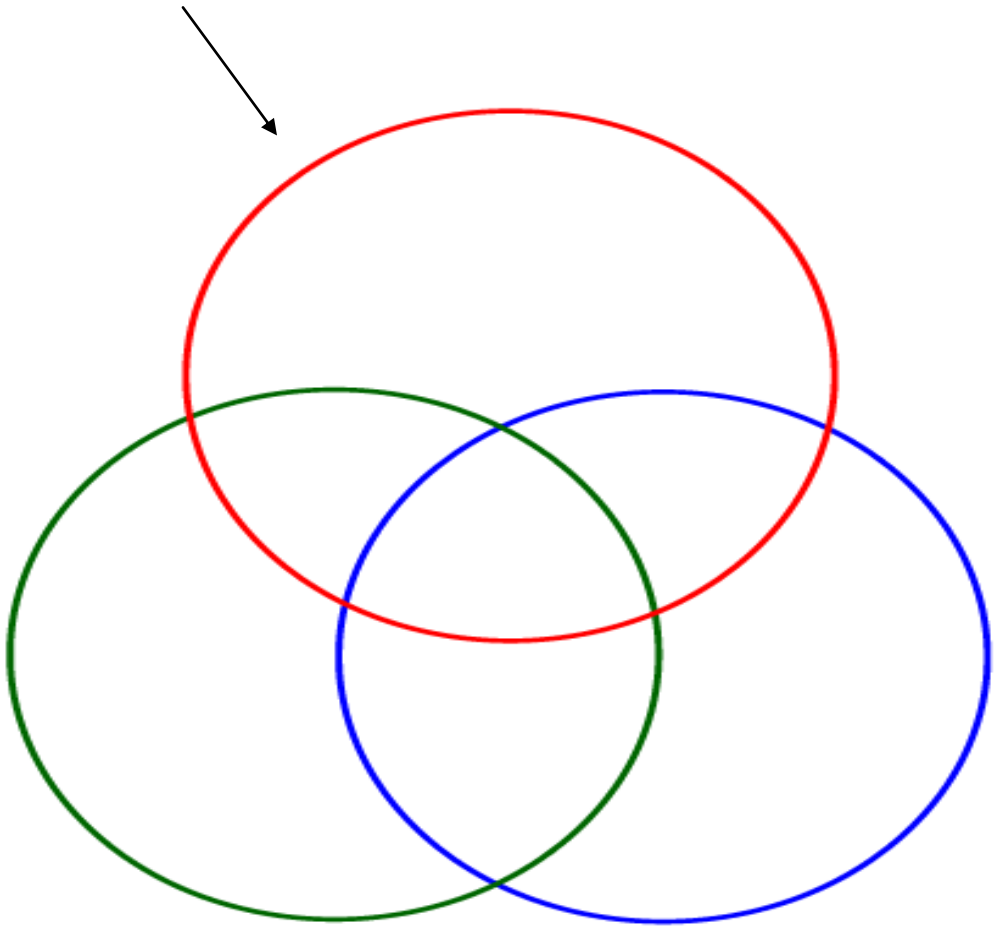
Question 2: Explain in 1 paragraph what the picture below has to do with classification.



Question 3: Which of the following would be the best characteristic to be used to classify shoes according to the rules of classification?

A. laces or no laces
B. number in a pair
C. model or kind
D. cost

Question 4 : Use the triple *VENN Diagram* below to compare at least 2 similarities and 2 differences between living, once living, and nonliving things.



Question 5 : Complete a **double bubble thinking map** below to describe why is a frog considered a living organism and a computer is not?

Question 6: Why is careful **observation** important in scientific classification?

D. Demonstrate that there are many ways to classify things.

Question 7 : Use a **tree thinking map** to show how you would classify something living or non-living according to structural characteristics. (e. g. shoes, animals, plants, fungi, protists, bacteria, rocks, clouds, mp3 players, or whatever).

Question **8:** Three groups of students classified ten leaves found on the school ground:

Group A classified the leaves based on their shape.
Group B classified the leaves based on the margins (edges) of the leaves.
Group C classified the leaves based on the pattern of the leaf veins.

Why were all three ways of classifying the leaves correct?

Question **9:** Why did every group not end up with the same classification system (chart and key) when we did the LEAF CLASSIFICATION activity.

Question 10: Which of the following characteristics would be appropriately used in developing a classification key for birds?

a. where the bird was seen b. how plentiful that bird is in your neighborhood

c. what food the bird eats d. color markings on the bird's head

Question 11: The following animals have been classified into two groups according to their foot structure: deer, cow, cougar, elk, dog, and wolf. Develop a different way to classify them using a different structural characteristic. Make a tree map below to show how you would classify them.

Question 12: Name two basic rules we use to classify things today in our modern times.

1. 2.

Question 13**:** Name 4 reasons for classifying living things (hint: use your *Classification Reading and Questions* paper for help.)

1. 2. 3. 4.

Question 14: What do scientists do when a new type of organism is discovered that does NOT fit into current classification systems?

A. Nothing. They're many organisms that do not fit into current classification systems.
B. Nothing. They wait until they find at least 10 new species and then make a new place in the classification system.
C. Scientists create a new classification system and discard old classification systems.
D. Scientists modify current classification systems to make a place for the new organism.

Question 15: In the past scientists used to classify living things into either the plant or animal kingdoms. Today it is customary to use a classification system that uses six kingdoms, and many scientists favor even more. Why?

Question 16**:** Identify at least 5 organisms that are not classified as either plant or animal.

1. 2. 3. 4. 5.

Question 17: Make a Tree map below to arrange the organisms provided in the word bank organisms according to kingdoms *Animalia*, *Plantae*, *Fungi*, *Protista*, *Eubacteria*, and *Archaebacteria*.

Donkey, Horse, Daffodil, Maple Tree, Amoeba, Human, Hydra, Salmonella, E. Coli, Mushroom, Truffles, Spider, Yeast, Crayfish, Dandelion, Mold, Bird, Euglena, Sea Sponge, Jelly Fish, Thermophile, Streptococcus aureus, Halophile, Cryophile, Slime Mold, Algae, Paramecium.

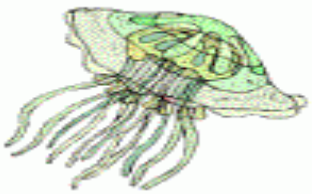
Question 18: Use the following classification key to identify the organisms below. Write the name under each organism as you identify it using the dichotomous key below.

Transparent = See through.

The other structures you should know from class

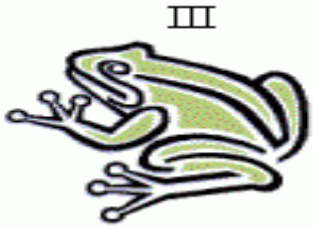
1a. Organism is symmetrical	Go to 2
1b. Organism is not symmetrical	Phylum Porifera
2a. Organism is bilaterally symmetrical	Go to 3
2b. Organism is radially symmetrical	Go to 5
3a. Organism has a spinal cord and vertebrae	Phylum Chordata
3b. Organism has NO spinal cord or vertebrae	Go to 4
4a. Organism has a hard exoskeleton	Phylum Arthropoda
4b. Organism has NO hard exoskeleton	Phylum Annelida
5a. Organism has five rays or arms	Phylum Echinodermata
5b. Organism is transparent with many tentacles	Phylum Coelenterata

I



II

III



_____ _____ _____

Question 19: The ability to classify and name organisms has allowed scientists to communicate their findings with each other and study each other's work. Listed below are some developments that have led to our current knowledge about organisms:

1. Invention of the microscope

2. Aristotle classified all organisms as plants or animals.

3. A 5-kingdom classification system was developed.

4. DNA used to identify relationships between species.

Write the correct order of the above developments. _____

Question 20: What did you enjoy most about classification?