Evidences for Evolution and Classification Review **Name: _____**

Look over the topics and vocabulary listed below as you prepare for your upcoming test.
Vocabulary to be familiar with:

1. Describe the following major evidences we use to support evolution? Make sure you understand each of them and how they support the process of evolution.

    a. Embryology:

    b. Vestigial Structures

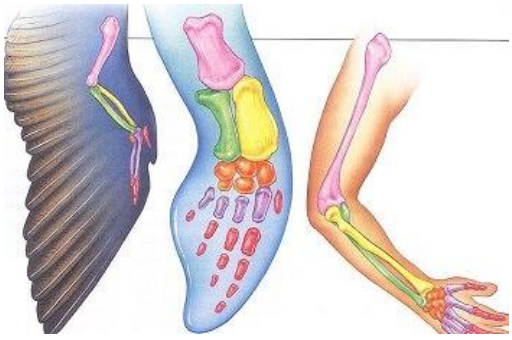
    c. Homologous Structures:

    d. Analogous Structures:

    e. Shared DNA sequences

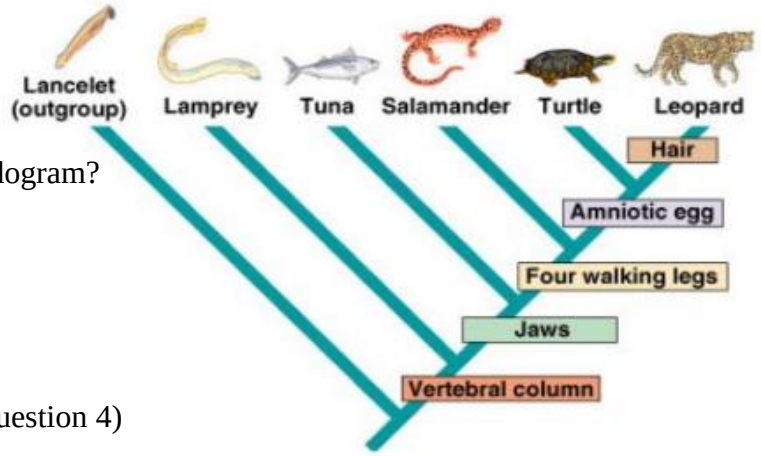
Example Question:

2. What is the relationship between the wing of a bird, the fin of a whale, and the arm of a human?
    a. They are homologous because they represent modified forms of a trait present in a common ancestor.
    b. They are analogous because while each carries out the same function, the trait has appeared randomly in each animal.
    c. They represent vestigial structures that were once necessary but are no longer used.



Classification:

Use the cladogram to answer these questions.



3. What trait separates Lampreys from tuna on this cladogram?

4. Which organism is most related to the leopard?

5. What 4 traits do these two organisms share? (from question 4)

Classification – ***Use the table for questions 6-10***

Taxon	**Cow**	**Grizzly Bear**	**Blue Whale**	**Bottlenose Dolphin**	**Clown Fish**
Kingdom	Animalia	Animalia	Animalia	Animalia	Animalia
Phylum	Chordata	Chordata	Chordata	Chordata	Chordata
Class	Mammalia	Mammalia	Mammalia	Mammalia	Actinopterygii
Order	Artiodactyla	Carnivora	Cetacea	Cetacea	Perciformes
Family	Bovidae	Ursidae	Balaenopteridae	Delphinidae	Pomacentridaie
Genus	*Bos*	*Ursus*	*Balaenoptera*	*Tursiops*	*Amphiprion*
Species	*taurus*	*arctos*	*musculus*	*truncatus*	*ocellaris*

6. Which two animals are most closely related? How do you know this?

7. Which animal is LEAST closely related to all the others? How do you know this?

8. Which taxon would have more species, a class or a genus?

9. Which taxon includes only organisms that can successfully interbreed?

10. If two organisms belong to the same Order, what other taxonomic groups do the organisms have in common?

Make sure you are able to use a dichotomous key.