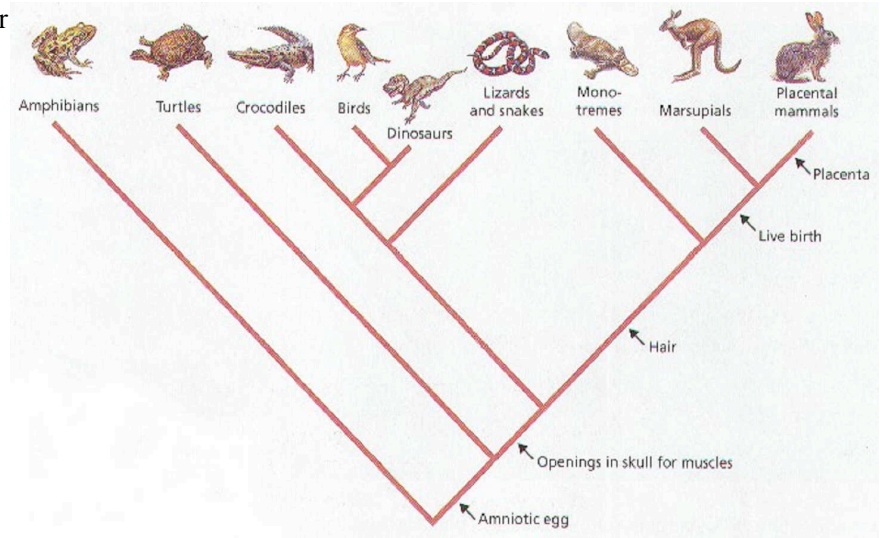


**Honors Biology Quarter 3 Review**

- 1) Compare the products of photosynthesis with the products of cellular respiration. How are the processes related?
- 2) What types of organisms are capable of photosynthesis? Cellular respiration?
- 3) In what organelle does photosynthesis happen? \_\_\_\_\_ Respiration? \_\_\_\_\_
- 4) How does ATP provide energy to cells?

5) Use the cladogram pictured to the right to answer the following questions:



- a. Which organism is most closely related to birds?
- b. List all traits that turtles and crocodiles have in common.
- c. What trait do marsupials have that monotremes do not?
- d. Which organism is the most complex?

6) Compare the six kingdoms of living organisms in the chart below:

Characteristic	Eubacteria	Archaeobacteria	Protista	Fungi	Plantae	Animalia
Pro/Eukaryotic						
Uni/Multicellular						
Auto/Heterotroph						
Cell Wall?						

- 7) Describe and give an example of each of the following:
  - a. Homologous structures
  - b. Analogous structures
  - c. Vestigial structures
- 8) What two components do all viruses share?
- 9) Are viruses considered living organisms? Why or why not?

10) What was different about Charles Darwin's theory of evolution compared to earlier theories?

11) How did Darwin's study of finches help him come up with the theory of evolution?

12) What type of evidence do today's scientists consider to be the most important in supporting the theory of evolution?

13) What is artificial selection and how did it help Darwin develop the theory of evolution?

14) Briefly describe each of the following tropisms:

a. Phototropism:

b. Thigmotropism:

c. Gravitropism:

15) What is the difference between positive and negative tropisms?

16) Compare the advantages and disadvantages of exoskeletons vs. endoskeletons:

	Exoskeleton	Endoskeleton
Advantages		
Disadvantages		
Examples of organisms with each		

17) List the major groups of animals in the order in which they appeared over geologic time. Also include the major new trait(s)/adaptation(s) each had for surviving in its environment.

18) Give examples of adaptations (traits or behaviors) that could evolve through sexual selection.

19) Describe and give an example of the three types of natural selection:

a. Directional selection

b. Stabilizing selection

c. Disruptive selection

20) List and briefly describe the four steps necessary for natural selection to occur.