



Name: _____ Period: _____

STAAR/EOC Biology: Category 3- Evolution and Classification

1. The father of Evolution was-

- a. Gregor Mendel
- b. Einstein
- c. Charles Darwin
- d. Watson and Crick

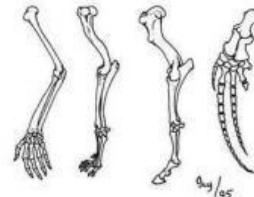
A



2. Evolution can be defined as-

- a. No change
- b. Change over time
- c. Change that occurs immediately
- d. None of the above

B



3. List the 5 evidences of evolution based on the pictures □

a. _____

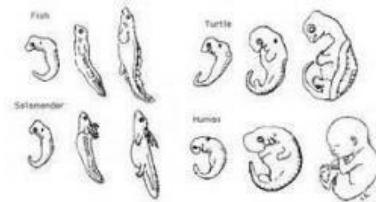
b. _____

c. _____

d. _____

e. _____

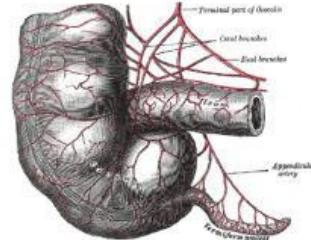
C



4. Identify the evidence for evolution:

- a. Cave drawings, ancient stories and ceremonial rites
- b. Homologous structure, DNA and embryonic evidence
- c. Eukaryotes, symbiosis and competition
- d. Nephrons, antibodies and homeostasis

D-appendix



5. Explain the theory of Natural Selection:

6. Define "coevolution":

7. Define "divergent evolution":

E



8. Define "convergent evolution":

9. If two organisms evolve in response to each other, which evolutionary pattern is demonstrated?

- a. Divergent evolution
- b. Emigration
- c. Coevolution
- d. Convergent evolution

10. What the effects of genetic drift and gene flow?

- a. Change in a gene occurrences
- b. Change in vision
- c. Change in DNA replication pattern
- d. Change in organism size

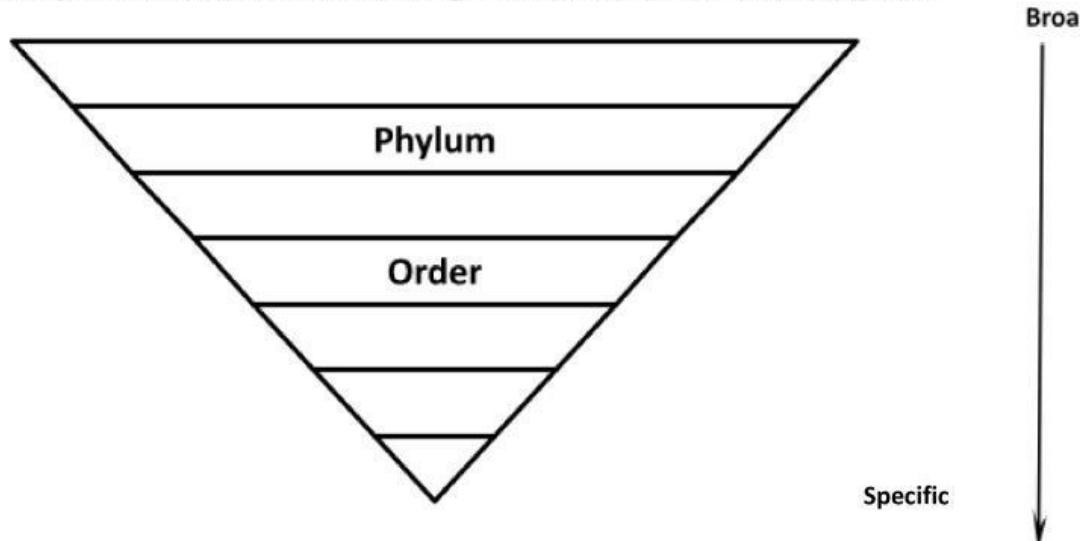
11. Darwin identified 13 different species of finch during his time on the Galapagos Islands. The main difference between the finches was the size and shape of their beaks. Which one of the following statements best describes how these differences developed?

- a. Bottlenecking
- b. Coevolution
- c. Convergent evolution
- d. Divergent evolution

12. A particular species of cave dwelling fish developed eye sockets and tiny nonfunctional "eye bulbs". What word best describes this situation?

- a. Homologous structures
- b. Vestigial structures
- c. analogous structures
- d. fossil evidence

13. Complete the levels of classification diagram below from broadest to most specific:



14. The scientific name of an organism is made up of its _____ and _____.

	<u>ZEBRA</u>	<u>HORSE</u>
<i>Kingdom</i>	Animalia	Animalia
<i>Phylum</i>	Chordata	Chordata
<i>Class</i>	Mammalia	Mammalia
<i>Order</i>	Perissodactyla	Perissodactyla
<i>Family</i>	Equidae	Equidae
<i>Genus</i>	Equus	Equus
<i>Species</i>	zebra	caballus

15. Is it possible for a zebra and a horse to interbreed? Why or why not?

16. Complete the six kingdom chart below:

<u>KINGDOM</u>	<u>TYPE OF CELL</u>	<u># of cells</u>	<u>Nutrition</u>
<i>Archaeabacteria</i>	<i>Prokaryotic</i>	<i>Unicellular</i>	<i>Autotroph or heterotroph</i>
	<i>Prokaryotic</i>		
<i>Protista</i>			
		<i>Unicellular or multicellular</i>	<i>Heterotroph</i>
			<i>Autotroph</i>
	<i>Eukaryotic</i>	<i>multicellular</i>	

17. Who am I? Identify the kingdom the following scenarios describes:

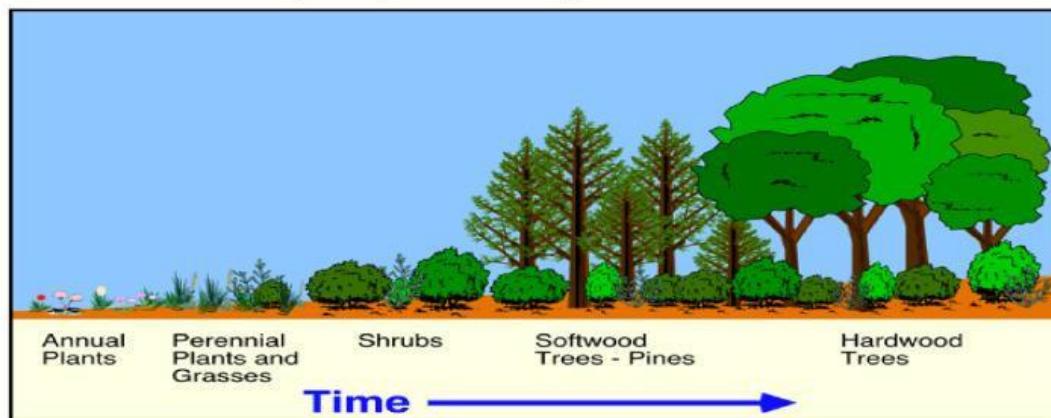
- a. I am a prokaryotic organism that causes strep throat. _____
- b. I am eukaryotic with a cell wall and chloroplasts. _____
- c. I am prokaryotic and live in really extreme locations! _____
- d. I am eukaryotic that can be autotrophic OR heterotrophic and unicellular OR multicellular! _____
- e. I am a eukaryotic organism with a cell wall of chitin. _____



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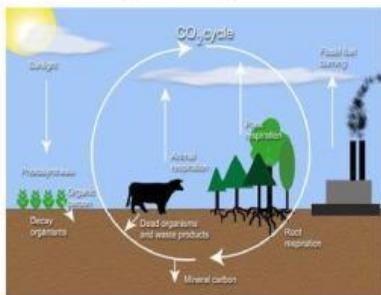
STAAR/EOC Biology: Category 5- Interdependence with Environmental Systems

5. Natural disasters can also disrupt the environment. This is called:
 - a. Primary succession
 - b. secondary succession
6. What is the difference between primary and secondary succession?



7. In the picture above annual plants are called the-
 - a. Climax community
 - b. Pioneer species
 - c. secondary consumer
 - d. predator
8. In the picture above hardwood trees are called the-
 - a. Climax community
 - b. Pioneer species
 - c. secondary consumer
 - d. predator
9. In an ecosystem there are many different relationships that exist. Define each of the following:
 - a. Mutualism- _____
 - b. Commensalism- _____
 - c. Parasitism- _____
 - d. Predation - _____
 - e. Competition- _____
10. A bee goes flower to flower gathering nectar. While they travel they pick up pollen and carry it to a different flower which will pollinate that flower. What type of symbiosis is this? _____
11. Some orchids grow up in the tree branches to get more sunlight. The tree is not harmed by the orchid. What type of symbiosis is this? _____

12. Carbon and nitrogen are two elements that cycle through the environment. What role do plants play in the carbon cycle? Be specific!



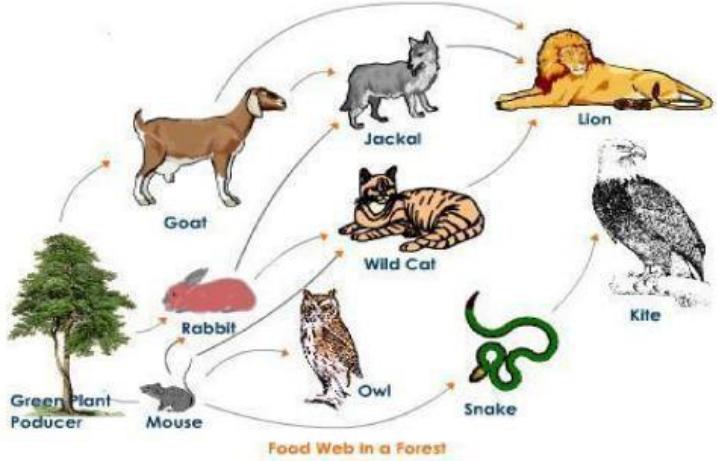
13. Interpreting the food web

a. Define producer:

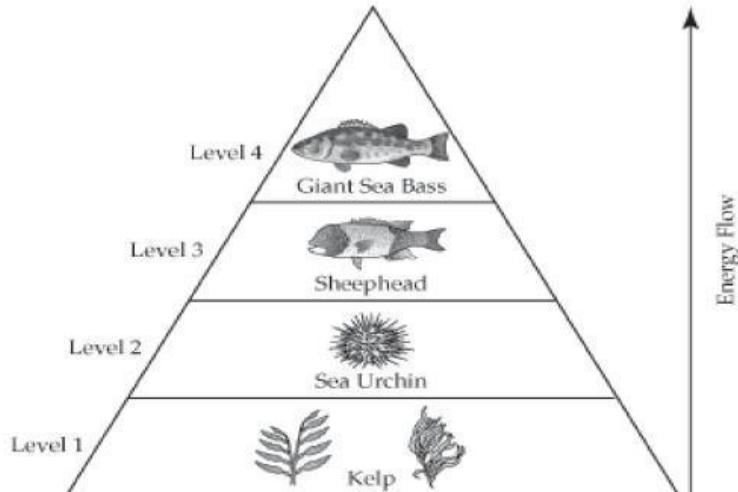
b. List the primary consumers:

c. List the secondary consumers:

d. List the tertiary consumer:



FLOW OF ENERGY IN A KELP FOREST ECOSYSTEM



14. Interpreting an energy pyramid:

a. Which level has the most biomass?

b. What percentage of energy moves up the pyramid?