



Name: _____ Period: _____

STAAR/EOC Biology: Category 3- Evolution and Classification

1. The father of Evolution was-

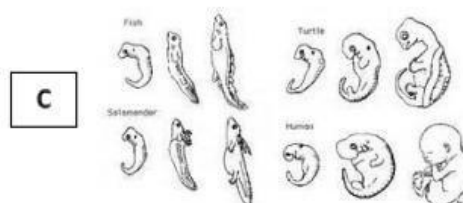
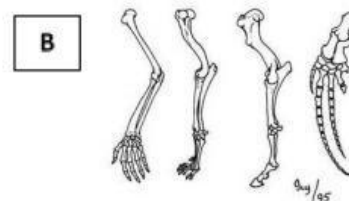
- a. Gregor Mendel
- b. Einstein
- c. Charles Darwin
- d. Watson and Crick

2. Evolution can be defined as-

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

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

- a. _____
- b. _____
- c. _____
- d. _____
- e. _____



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

5. Explain the theory of Natural Selection:

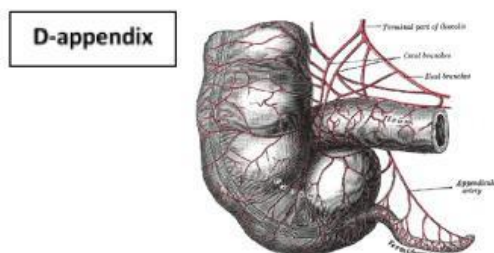
6. Define “coevolution”:

7. Define “divergent evolution”:

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

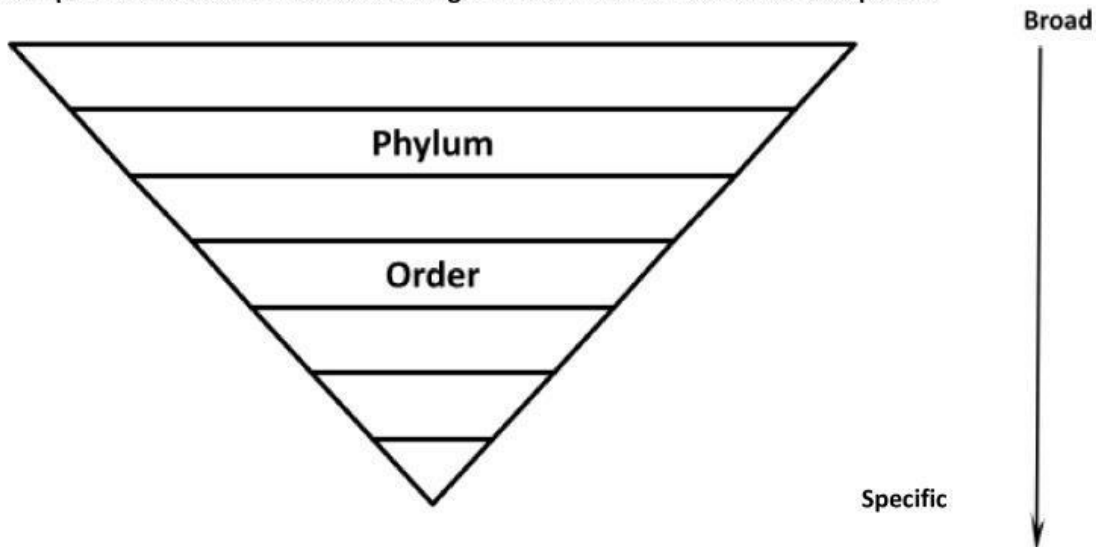
11. Darwin identified 13 different species of finch during his time on the Galapagos Islands. The main difference between the finches was the size and shape of their beaks. Which one of the following statements best describes how these differences developed?

- 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>
Kingdom	Animalia	Animalia
Phylum	Chordata	Chordata
Class	Mammalia	Mammalia
Order	Perissodactyla	Perissodactyla
Family	Equidae	Equidae
Genus	Equus	Equus
Species	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:

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

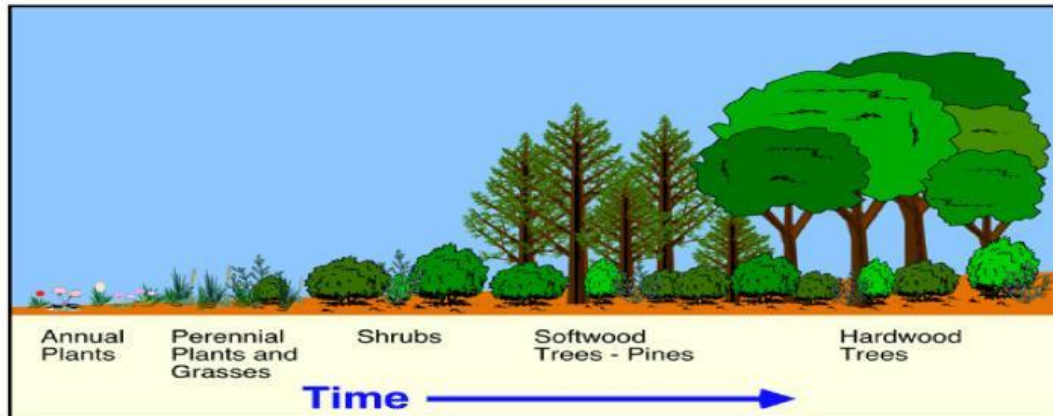


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STAAR/EOC Biology: Category 5- Interdependence with Environmental Systems

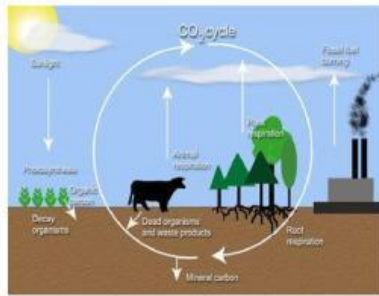
- The digestive system has enzymes and bacteria found throughout to help break down food and keep the organism healthy. When a person's body is balanced that is called-
 - Equal
 - Hypotonic
 - hypothesis
 - homeostasis
- Insulin is a hormone humans have to regulate glucose levels in the blood. This called internal feedback. Individuals that do not have the ability to control their insulin levels (diabetes) will:
 - Be unable to maintain homeostasis
 - Be able to maintain homeostasis better than others
 - Be able to eat more sugar
 - Migrate to a new environment
- This relationship is considered to be-
 - Commensalism
 - Parasitism
 - mutualism
 - competition
- When there is a disruption in the environment it can affect an entire community. Describe what would happen if there was an outbreak of an unknown disease in Texas.

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



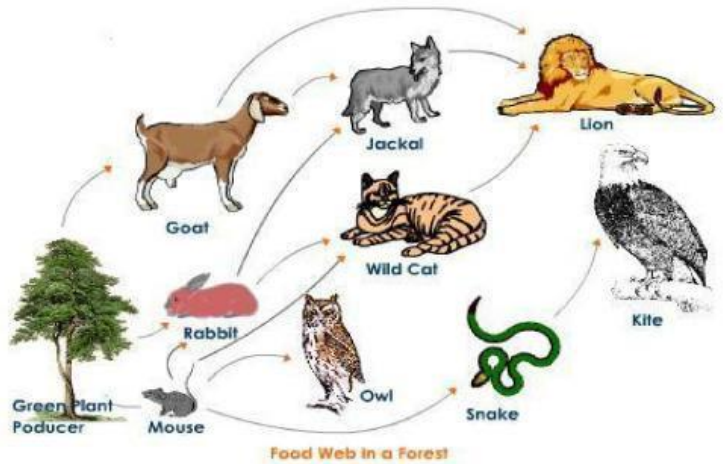
7. In the picture above annual plants are called the-
- Climax community
 - Pioneer species
 - secondary consumer
 - predator
8. In the picture above hardwood trees are called the-
- Climax community
 - Pioneer species
 - secondary consumer
 - predator
9. In an ecosystem there are many different relationships that exist. Define each of the following:
- Mutualism- _____
 - Commensalism- _____
 - Parasitism- _____
 - Predation - _____
 - 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 in this? _____

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

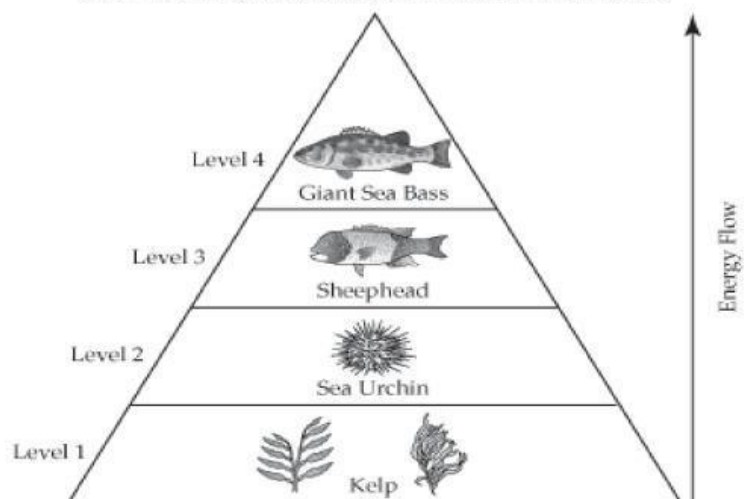


13. Interpreting the food web

- Define producer:
- List the primary consumers:
- List the secondary consumers:
- List the tertiary consumer:



FLOW OF ENERGY IN A KELP FOREST ECOSYSTEM



14. Interpreting an energy pyramid:

- Which level has the most biomass?
- What percentage of energy moves up the pyramid?