**Evolution Test Review**

1. To increase the concentration of a solution you *would add more \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (solvent or solute)*.
2. Some examples of physical changes: *\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*
3. Some examples of chemical changes\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. In a chemical reaction, if the products have less mass than the reactants, *then a \_\_\_\_\_\_ was produced and some mass was released into the air/atmosphere.*
5. Water Quality Indicators

Dissolved oxygen – High DO = *\_\_\_\_\_\_\_\_* Low DO = *\_\_\_\_\_\_\_\_\_\_\_\_\_* **(write: good or bad)**

Temperature – Cold water =\_\_\_\_\_\_\_\_ DO; Warm water =\_\_\_\_\_\_\_\_\_\_\_\_DO. **(write: less or more)**

A neutral pH = \_\_\_\_\_\_\_\_\_\_\_\_\_\_ on the pH scale

Turbidity – High( *cloudy* water) = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_; Low( *clear*  water) =\_\_\_\_\_\_\_\_\_\_\_\_ **(write good or bad)**

Nitrates and Phosphates – too high = *\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_* **(write good or bad)**

Bioindicators – present in water = *\_\_\_\_\_\_\_\_\_\_*  not present in water =*\_\_\_\_\_\_\_\_\_\_\_\_***(write good or bad)**

1. *\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_* – theory that states that the forces that shaped the Earth in the past (weathering, erosion, earthquakes, etc.) are still shaping the Earth today.
2. *All compounds are \_\_\_\_\_\_\_\_\_\_\_\_\_\_* H2O, NaCl, C6H12O6), *but not all \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ are compounds* (O2, H2, N2)
3. *Chemosynthesis* - Process in which food energy is created at hydrothermal vents on the ocean floor.
4. *Chloroplasts* are found in all plants and plant-like bacteria (ex. phytoplankton)
5. *P\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_* are responsible for the building and repairing of cells, organelles, and tissues.
6. The cell’s food is glucose (sugar), which is needed for cellular respiration. Glucose (sugar) is broken down in the mitochondria to provide energy (ATP) during cellular respiration.
7. Genetic *variation* are differences that exist naturally among members of a population or species. Some variations can be beneficial (good), while other variations can end up being bad for some organisms within a population or species.
8. *Mutation* is a change in the genetic material of an organism. Most of the time mutations are not helpful for the survival of an organism. Sometimes a mutation can cause a genetic variation, becoming an adaptation that helps an organism survive in its environment.
9. *Genetic variation* often drives (helps,creates) *adaptations* which help organisms survive and reproduce in their environment.
10. *\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_* is the creation of a new species. This can happen when 2 populations of the same species are divided for a long time. (ex. divided by a mountain range)
11. *An \_\_\_\_\_\_\_\_\_\_\_\_\_* – a trait that helps an organism survive in a particular environment.
12. Identical fossils of plants and animals on different continents is evidence that the land was once connected. The separation of the continents is caused by C\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ D\_\_\_\_\_\_\_\_\_\_\_\_\_
13. *\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_* – a body part that does not seem to have a function in an organism. (ex. appendix in humans, hip bones in snakes and whales) **SHOW EVIDENCE FOR** common ancestry
14. Evolutionary change takes a long time*. Evolution is a gradual change*.
15. Extinctions occur when species cannot adapt to their changing environments or they have evolved into another species.
16. “Survival \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_” – those that have traits best suited to their environment will succeed and prosper.
17. *Natural \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*– process by which organisms that are best suited to a particular environment survive and reproduce most successfully.
18. *\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ structures* – similar structure/different function. (Ex. Bone structure/anatomical/physical features: human arm, bird wing, whale flipper, wolf leg bones) **SHOW EVIDENCE FOR** common ancestry
19. *\_\_\_\_\_\_\_\_\_\_\_\_\_ structures* – similar function/different structure (Ex. Bird wing and butterfly wing) **DO NOT** show common ancestry
20. *Mammals* are the most recent group of organisms to appear on Earth.
21. Examples of *variations*: In humans – eye color, skin color, hair color, fingerprints (no 2 the same)
22. *Relative age* in rocks and fossils can be **found in two ways: index fossils and the Law of Superposition**
23. Many plant species have offspring in the form of seeds. Trees release hundreds of seeds every season. This is an example of ***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***
24. *\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ –* when a species produces more offspring than will actually survive. (ex. fish-eggs, turtle-eggs, tree-seeds: ALL PRODUCE UPWARDS OF HUNDREDS OF OFFSPRING)
25. *Law of\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_* – the principle that in undisturbed sedimentary rock layers, older layers of rock lie beneath younger rock layers.

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