**Biology**

**Standard 11: The Classification of Life**

**Study Guide for QUEST!**

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| 1. | List the levels of classification in order from top to bottom.   Kingdom - |

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| 2. | Which kingdom contains organisms that are multicellular, produce spores, and do not contain chlorophyll? |
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| 3. | Compare the kingdom Archaebacteria to the kingdom Eubacteria (include their characteristics, environments found, how they get food, etc.) |
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| 4. | Describe how you may find out how closely related two organisms were to each other? |

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| 5. | Explain how DNA analysis changed how we classify organism? |

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| 6. | If an organism is photosynthetic and multicellular, what possible kingdoms could it be in? |
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| 7.  8. | What is the purpose of stoma (stomata) and guard cells?  Complete the sentence: A species is …… |

9. Explain what binomial nomenclature is and the correct way to write a scientific name.

10. What is a cladogram?

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| 11. | A scientist has been exploring the Florida Everglades and collect lots of insects over the course of his study. He finds an insect that has never been identified or named. How does the scientist determine its classification and where does its name come from? |
| 12. | What is the major difference between organisms in domains Archaea and Bacteria compared to domain Eukarya? |

13. In the past 150 years, the classification of life has changed through the addition and restructuring of kingdoms and domains. This system is always changing because:

1. Scientific study keeps producing more data.
2. Evolution keeps producing unique organisms
3. Extinctions change evolutionary relationships
4. Humans increase the rate of speciation

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| 14. | Which organism is most closely related to the sandhill crane, *Grus canadensis*? |  | |

1. *Falcipennis Canadensis*
2. *Branta Canadensis*
3. *Grus americana*
4. *Recurvirostra Americana*

15. What structure is responsible for delivering water to the plant? Food?

16. How can you compare a plant’s vascular system to a human system?

17. Explain the reproduction of a plant using the words: fruits, cones, pollen, seeds and flowers (this will require more than one sentence).

18. Differentiate between autotroph and heterotroph.

19. What are 2 functions of roots? 2 functions of stems?