**VOCABULARY:**

1. Organism- **a living thing.**
2. Cell- **smallest unit of an organism that can carry out the functions of life.**
3. Unicellular- **organism containing ONE cell**
4. multicellular - **organism containing many cells**
5. autotroph-**organisms that can make their own food.**
6. Heterotroph-**organisms that take in food.**
7. Classification-**grouping organisms based on similar characteristics.**
8. Taxonomy-**the study of grouping/classifying organisms based on similar characteristics.**
9. dichotomous key-**series of paired statements used to identify an organisms Genus and species.**
10. Protisa- **“Water” Kingdom that contains plant-like, animal like, and fungus like organisms.**
11. Fungi-Kingdom. **(Mushrooms, yeast, athletes’ foot, etc.) Most are multicellular. They are eukartoyes and heterotrophic.**
12. Bacteria- **Kingdom**. **Contains organisms that are both unicellular and multicellular; autotrophic and heterotrophic; give us strep throat, lyme disease, E. Coli, yogurt, cheese, etc.**
13. binomial nomenclature- **Two-part naming systems created by Carolus Linneaus; includes the Genus and the species.**
14. Genus- **First part of an organisms’ name. Should be capitalized.**
15. Species-**second part (more specific) of an organism’s name. These organisms can produce fertile offspring.**
16. Prokaryote-**an organisms with NO nucleus.**
17. Nucleus- **the control center of the cell (contains genetic information and tells the cell what to do).**
18. Eukaryote-**An organism that HAS a nucleus**.
19. Carolus Linnaeus-**Father of taxonomy. Created binomial nomenclature.**
20. Domain**-Broadest category of living things.**
21. Kingdom-**Second broadest category of living things. There are 6 of these.**
22. Archea- **The domain containing unicellular organisms.**
23. Eukaryota- **The domain that contains the 6 kingdoms of living things.**
24. Eubacteria- **Domain that contains bacteria.**
25. Archaebacteria- **Kingdom of** **bacteria that can be found in extreme conditions.**
26. Animalia- **Kingdom in which humans fall in. Heterotrophic, multicellular, and eukaryotic.**
27. Plantae- **Kingdom containing** **Autotrophic, multicellular, and eukaryotes.**

**Classification Questions:**

1. Why do biologists organize living things into groups? **To organize and better understand them.**
2. What characteristics are used to classify organisms into domains and kingdoms? **Autotrophic or Heterotrophic; Unicellular or Multicellular; Prokaryotes or Eukaryotes.**
3. What is the naming system of Linnaeus and how is it organized? **Binomial Nomenclature.** **It is organized based on the Genus and the Species.**
4. What is the correct way to write a scientific name? Genus species or *Genus species.*
5. What are the levels of classification in order from broadest to most specific? **Domain, kingdom, phylum, class, order, family, genus and species.**
6. What is a domain and a kingdom? **A Domain is the broadest level of classification and the Kingdom is the second broadest level (with 6 kingdoms of living things).**
7. Name the domains. **Archea, EuBacteria, and Eukaryota**
8. Name the kingdoms. **Animalia, Plantae, Bacteria, Archebacteria, Protista, and Fungi.**
9. What is the different between a eukaryote and a prokaryote? **Eu=YES Eukaryotes have a nucleus. Pro=NO Prokaryotes have NO nucleus.**
10. What is the difference between a heterotroph and an autotroph? **Autotrophs make their own food (ex. plants) and heterotrophs do not (ex.humans).**
11. What characteristics are specific to bacteria? **Contains organisms that are both** **Unicellular and Multicellular; Both autotrophs and heterotrophs; All Prokaryotes.**
12. What characteristics are specific to protists? **Contains organisms that are both Unicellular and Multicellular; Both autotrophic and heterotrophic; all Eukaryotic. Grouped in 3 groups (plant-like, animal-like, and fungus-like).**
13. What characteristics are specific to fungi? **All eukaryotes and heterotrophic; most are multicellular but yeast is unicellular.**
14. What characteristics are specific to plants? **Plants are multicellular, eukaryotes, and autotrophs.**
15. What characteristics are specific to animals? **Animals are multicellular, eukaryotes, and heterotrophs.**
16. What is a dichotomous key and how is it used? **a tool used to classify organisms by choosing their characteristics from a series of paired statements.**
17. How do you read a classification tree? **The oldest organisms are at the bottom of the tree. The closest the branches are, the more closely related the organisms are.**
18. How do you use a classification chart? **Identify the scientific name of an organism and how closely related it is to other organisms by reviewing its kingdom, phylum, class, order, family, genus, and species.**
19. What conditions are needed for bacteria to reproduce and how do you slow its growth? **Warm, moist, and dark environment.**
20. Why are decomposers important? **Decomposers break down dead plants, animals, and waste in the ecosystem.**
21. **Know the following:** strep throat, food poisoning from salmonella, tetanus, and lyme disease are caused by bacteria; and cheese, sour cream, yogurt, and buttermilk are produced with the help of bacteria.